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FINANCIAL KNOWLEDGE , STRESS AND WELL BEING : MEDIATING EFFECT OF BEHAVIOUR AND QUALITY OF LIFE OF INVESTORS

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Abstract

Purpose

With the rapid changes and constant developments in the financial sector and the broader economy, it is important to understand whether people are equipped to effectively navigate the maze of financial decisions that they face every day. To provide the tools for better financial well-being, one must assess not only what people know but also what they need to know, and then evaluate the gap between those things. Financial knowledge, financial stress and behaviour are crucial elements for consumers to effectively participate in today's social and economic life.

Design/methodology/approach

In this research, the key Indicators of Quality of life are identified along with Behavioural factors and the impact of Investors Knowledge on the Behaviour of Investors and well being is comprehensively examined, not only through the prism of economics but also through many other factors that give people overall satisfaction. Also study attempts to find out that whether financial stress impacts Quality of Life and subsequently financial well-being of investors. Path analysis has been performed using Structural Equation Modeling on the sample of 243 retail investors.

Findings

Study found that financial knowledge significantly impacts short term behaviour of Investors and have a great influence on well-being. Significant indirect relationship has been identified among Stress, Quality of Life and well-being of Investors. It has been shown that if enough emphasis is given on increment of financial knowledge and education, Financial Stress level of investors along with quality of life of individual can be amplified.

Practical implications

Findings emphasize on increment of financial Literacy by creating basic awareness of financial products and concept among individual to offer support for Financial Stress being faced by investors at various stages of life. Quality of life of individual can be amplified by providing them with adequate learning through programs which leads to overall financial satisfaction among investors.

Keywords : Financial Knowledge, Financial Awareness, Financial Well-Being , Financial Stress , Mediation Analysis, Structural Equation Modelling, Regression Estimates, Quality of Life, Financial Behaviour

1. INTRODUCTION

With the fast-paced changes and continual advances in the financial sector and the economical changes, it's critical to know whether people are well-equipped to manage the maze of financial decisions they face on a daily basis. To give people the tools they need to make better financial decisions, one must examine not only what they know but also what they need to know, and then measure the gap between the two. Individuals today are more financially responsible than ever before throughout their lives. Consumers' financial knowledge, skills, and behaviour are critical elements for them to participate effectively in today's social and economic life. Keeping in mind that money and financial literacy are unavoidable and continuous companions in our lives, bringing with them a plethora of problems, risks, and opportunities, they will surely have an impact on all aspects of the Quality of Life. When individuals, companies, and society as a whole are financially literate, the odds of reaching a higher Quality of Life improve significantly. The Financial Literacy Indicators, to some extent, signify the health of the financial sector and the economy as a whole. Unstable finances are a major source of financial anxiety for people, and they can have a significant impact on their health and quality of life. A significant question in the times we live in, characterised by the digital age and the increasing motion of change, is whether and to what extent people are sufficiently economically savvy, and what is being done to make the situation far better than it is now. Standard macroeconomic metrics, which have long been employed as indices of societal well-being, do not necessarily provide a true and full picture of financial literacy or quality of life.(Iwasaki, 2004). The impact of Investors Education on the Quality of Life and Behaviour of Investors is extensively investigated in this study, not just through the lens of economics, but also through the many other variables that offer individuals overall satisfaction.(Osman, Madzlan, & Ing , 2020). The financial environment has grown much more challenging and unpredictable, putting certain customers at danger of financial problems. As a result, there is a growing interest in policies and interventions aimed at improving financial literacy and abilities, preferably at a young age. Providing adequate education to investors to improve their quality of life is a potential option. The main objective of this research is to identify the level of financial knowledgeamong investors and to study the impact of financial Knowledge on investors quality of life and their financial behavious. Also study attempts to find out that whether financial stress impacts Quality of Life and subsequently financial well being of investors(Hooman, 2009). Various studies have been conducted in the area of financial knowledge and literacy but mostly have focused on variables of Financial knowledge and financial behavious. Impact on quality of life and stress attitude as variable is not studied so far. Therefore, present study uses all dimensions of quality of life and investors behaiviou to comprehend impact on overall financial wellbeing of investors

1. OBJECTIVES

Following are the proposed research objective of the study

1. To Study the financial knowledge and awareness level of investors regarding financial technologies, finances and money.
2. To Study the indicators of Quality of life which impacts investors financial well being.
3. To Identify the factors impacting financial stresslevel of investors
4. To study the impact of Investors Knowledge and awareness on Financial Behaviour and Quality of Life.

5. To study whetherfinancial behaviourmediates the relationship between Financial Knowledge and FinancialWell being.
6. To study the mediating effect of Quality of Life on relation between Financial Stress and Financial Well being of Investors.

2. REVIEW OF LITERATURE

Studies have found a negative correlation between financial knowledge and financial stress. For example, a study by Lusardi and Mitchell (2011) found that individuals with higher levels of financial literacy had lower levels of financial stress. Similarly, a study by van Rooij, Lusardi, and Alessie (2011) found that financial literacy was negatively associated with financial stress.Additionally, research has also shown that factors such as income, education, and financial literacy are associated with financial stress. A study by Caner and Wolff (2004) found that low-income individuals had higher levels of financial stress compared to high-income individuals. Similarly, a study by Lusardi and Mitchell (2007) found that individuals with higher levels of education tend to have lower levels of financial stress.Moreover, financial stress has also been found to have negative effects on mental and physical health, as well as overall well-being. For instance, a study by Xiao and Yao (2016) found that financial stress was associated with symptoms of depression and anxiety. Similarly, a study by Li and Yao (2015) found that financial stress was associated with increased risk of cardiovascular disease.Study have found that financial stress is negatively associated with quality of life and well-being. For example, a study by Li and Yao (2015) found that financial stress was associated with decreased quality of life. Similarly, a study by Xiao and Yao (2016) found that financial stress was associated with lower levels of subjective well-being.Additionally, research has also shown that financial knowledge is positively associated with quality of life and well-being. A study by Lusardi and Mitchell (2011) found that financial literacy was positively associated with life satisfaction. Similarly, a study by van Rooij, Lusardi, and Alessie (2011) found that financial literacy was positively associated with subjective well-being.

Several studies have found that saving behavior is positively associated with quality of life and well-being. For example, a study by Lusardi and Mitchell (2007) found that individuals who saved for retirement had higher levels of well-being. Similarly, a study by Chen, van Rooij, and Lusardi (2014) found that higher levels of saving were associated with higher levels of life satisfaction.Additionally, research has also shown that spending behavior is positively associated with quality of life and well-being. A study by Okuda, Fujii, and Takeda (2018) found that individuals who spent money on experiences, rather than material possessions, reported higher levels of life satisfaction. Similarly, a study by Kupperman, Lusardi, and Mitchell (2008) found that individuals who spent money on others reported higher levels of well-being.Furthermore, the literature suggests that investment behavior is positively associated with quality of life and well-being.

3. RESEARCH DESIGN AND METHEDOLOGY

The data for the study is collected using a combination of quantitative and qualitative methods. Surveys and questionnaires would be used to collect quantitative data on financial knowledge, stress, well-being, financial behavior, and quality of life. The survey include standardized questionnaires such as the Financial Stress Scale, the Financial Behavior Scale, and the Quality of Life Scale. Regression and correlation analysis through Structural equation modelling is interpreted by the researcher.

4.1 Questionnaire Designing and Constructs Measurement

The study adapted a validated scale to measure the variables of the research. Financial knowledge of respondents is analysed through OECD finlit Survey index including questions related to Numeracy, interest, Time value of Money , compounding etc. A Six item scale is adapted for measuring Financial Stress (FS) measured through 5 point likert scale ranging from Strongly Disagree to Strongly Agree. Similarly, Financial Behaviour is measured through 6 item scale from OECD framework. A structured questionnaire was pretested among 10 respondents and 2 experts to confirm the wordings and sequence of Constructs. After minor revisions , instrument was taken into consideration for this study.

4.2 Data Colleection and Sample Plan

The target respondents for this study were working professionals from NCR with middle and low level of income group.According to statistics Faridabad , Haryana and Sonipat are majority have highest population, so these are taken into consideration for study to generalize the result effectively.

Non Probability sampling is a good fit for this research as respondent to be selected are drawn from fixed criteria representing a better representaion of sample. Questionnaire was distributed among target respondents using purposive sampling technique on the basis of two criterias ie education and Low and middle income group. A total of 290 Questionnaire were received out of which 243 were found useful.

4.2 Framework and Hypotheses

Research Framework

H1: There is a significant association between Demographic variables and Financial behaviour, quality of Life and Financial well being.
H2: FinancialKnowledge significantly impacts Quality of Life
H3: Financial Knowledge significantly impactsFinancial Behaviour
H4: Financial Behaviour significantly impactsFinancial Stres.
H5: Financial Stress significantly impactsQuality of Life.
H4: Quality of Life significantly impacts Financial Well Being
H5: Financial Behaviour significantly impactsFinancial Well Being
H6: Quality of Life mediates the relation between Financial stress and Well Being
H7: Financial Behaviour mediates the relation between Financial knowledge and Well Being

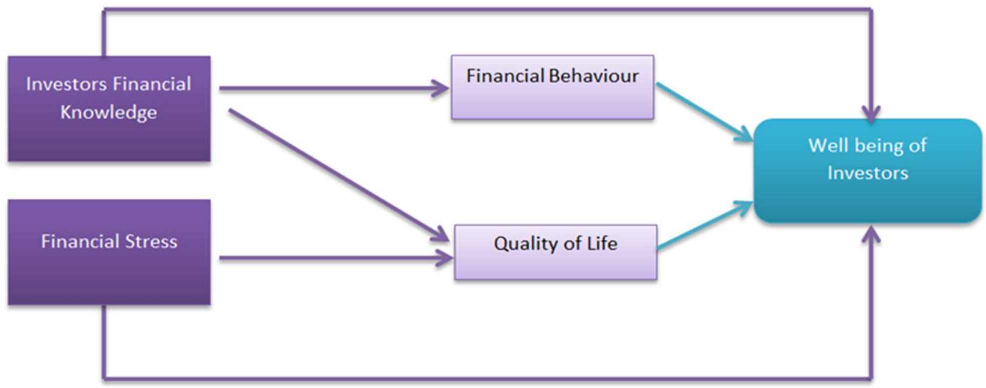

Figure 1 : Conceptual Framework

Financial Knowledge and Behaviour : Knowledge of responded related to basic financial terms was analyzed through OECD finlit survey questions (Numeracy, Interests compunding, Fintech awareness, time vale of money and inflation). (OECD, 2007). For evey correct answer 1 point was assigned and no mark for wrong and unanswered questions.Cronbach alpha for this was at 0.82 sigificance level. Financial behaviour was analyzed throough 5 pouint likert scale including statement like, Before I buy something I carefully consider whether I can afford it , I pay my bills on time.

Financial Stress: To measures financial stress among respondents (Grable & Archuleta, 2011) 6 item scale was adapted.

This measured three reactions of respondents through APR scale ie Affective reaction, and Physiological Reactions and Relational Reactions(Rahman, 2021) . This was adminitered through a 5 point likert scale from strongly disagree to Strongly Agree.

Quality Of Life: to measure quality of Life of respondents, WHOQOL – BREF was used which is shorter version of WHOQOL- 100. (Organization, 2012)Scale constitutes four dimensions Physical health, Psychological, social relationship and environment analyzed through 5 point likert scaling ranging from strongly disagree to strongly agree.

Financial Well Being: wellbeing of respondednt financlially is meaausred through CFPB(Consumer Financial Protection Bureau) Financial Well-Being Scale. This instrument included valuation in two age groups below 60 and above And of those who have self responded and by someone else. Total score of 10 questions is matched with preset value to find well being score of respondents.

4.3 Estimates and Analysis

The conceptual framework is analyzed using SEM approach. This study has 5 different constructs namely Financial knowledge, financial stress, financial behaviour , quality of Life and financial well being, It used scales to measure each constructs. Data colleceted is analyzed using 2 steps i.e. measurement scales estimation through reliability and validity and then relation between constructs through structural equation modelling to test the hypothesis. Confrimatory factor analysis with SEM was conducted to estimate model fitness using IBM AMOS. Model validation is done in following stages.

4.3.1 Descriptive Analysis

Financial Knowledhe and Awareness : The financial knowledge of the investors was identifies using basic to advance level questions. The awareness level of sample was identified as shown below showing extreme awareness for mobile banking, Budgeting apps and Fixed deposits, Moderately aware for PPF, equity stocks and Mutual funds and least awareness for crowd funding and blockchain terminolgies. The result shows that 16% of the sample have low level of financial knowledge and other 76% have medium to high level of Financial knowledge.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LOW LEVEL FIN LITERACY	39	16.0	16.0	16.0
	MEDIUM FIN LITERACY	121	49.8	49.8	65.8
	HIGH FIN LITERACY	83	34.2	34.2	100.0
	Total	243	100.0	100.0	

Table 1 : Level of Financual Knowledge

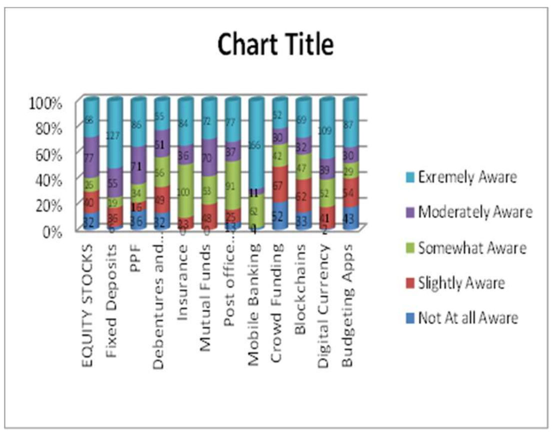

Figure 2 Awareness level of Respondents

Financial Behaviour : Result displayed in Table 2 shows that respondents agree that financial planning is the indeed importamt factor for a better saving and investment staretgies pertaining to retirement emergency situation, debt payment , loansof credit cards etc. Majority of sample disagreed that short term saving is prefereed over long term saving.

	FB1	FB2	FB3	FB4	FB5
Strongly Disagree	72	68	4	0	4
Disagree	86	107	0	29	40
Neither Agree nor Disagree	59	53	31	52	25
Agree	17	2	57	86	79
Strongly Agree	9	13	151	76	95

Table 2 Financial Behaviour

Financial Stress: The result in Table 3 showed higlest worry of respondent is that if payment delay happens how will they manage it and it is followed by medical cost stress factor in case of private employee , Financial stress pertaining to falling sick, physical factor and depression is least.

	FS1	FS2	FS3	FS4	FS5	FS6
Strongly Disagree	17	10	24	39	34	66
Disagree	34	70	97	86	105	73
Neither Agree nor Disagree	106	75	83	92	68	94
Agree	71	75	22	11	27	1
Strongly Agree	15	13	17	15	9	9

Table 3 Financial Stress

Financial Wellbeing:Respondents were neutral regarding paying monthly bill, ability to pay and manage finances. They were less satisfied with retiremenet planning or salary running out of time.(Singh & Reddy, n.d.)

4.3.2 Measurement model analysis

Measurement model analysis is a statistical technique that is used to evaluate the reliability and validity of a set of measures or scales used in a study. It is a key step in the research methodology of a study that aims to examine the relationship between financial knowledge, stress, well-being, financial behavior, and quality of life.

Quality of Life

To identify overall model fit, CFA at zero level of all latent constructs are analyzed(Hair, Black, Andersion, & Tatham, 1998). It shows bivariate relationship among latent variables and all other variables, indicating regression effect(Nathans & Oswald, 2012).

A statistically significant model must have composite reliability (CR) of greater than 0.7, average effectiveness (AVE) greater than 0.5, and factors loadings above 0.5.Discriminant validity refers to how distinct measures are from one another.(Chin, 1998)According to (Dillon, 1994) construct validity is the extent to which variables represents a constructs. Consequently, latent variables explain variables of their own variables better than other constructs or factors.Table below shows than all factor have AVE greater than 0.5 and CR greater than 0.7. All variables have factor loadings more than 0.5, making the model statistically significant.

4.3.3 Structural Equation Analysis

According to the this Structural Model , the impact of the exogenous variables Financial Knowledge, Financial Behaviour and Financial Stress on Financial Well being and quality of Life is determined, as it creates an instant examination of full model that look for various hypothetical relation between constructs.

Here two step analysis was performed where measurement model analysis with latent constructs is done and then SEM with all constructs and their rleationship is identified.

Factor loading of latent constructs are in range of 0.69 to 0.93 indicating supoort for validity.

AVE value extracted for health , sprituality , recreation and employment are greater than standardrange of 0.50. The composite reliability coefficient value is greater than 0.60 for all variables, showing high internal relaibility of the model is assured.

First order measurment model represent that all prerequiste are met. The chisquare value is 394.44 with p value 0.000, CFI at 0.905 amd RMSEA value 0.061, showing Goodness of Fit.

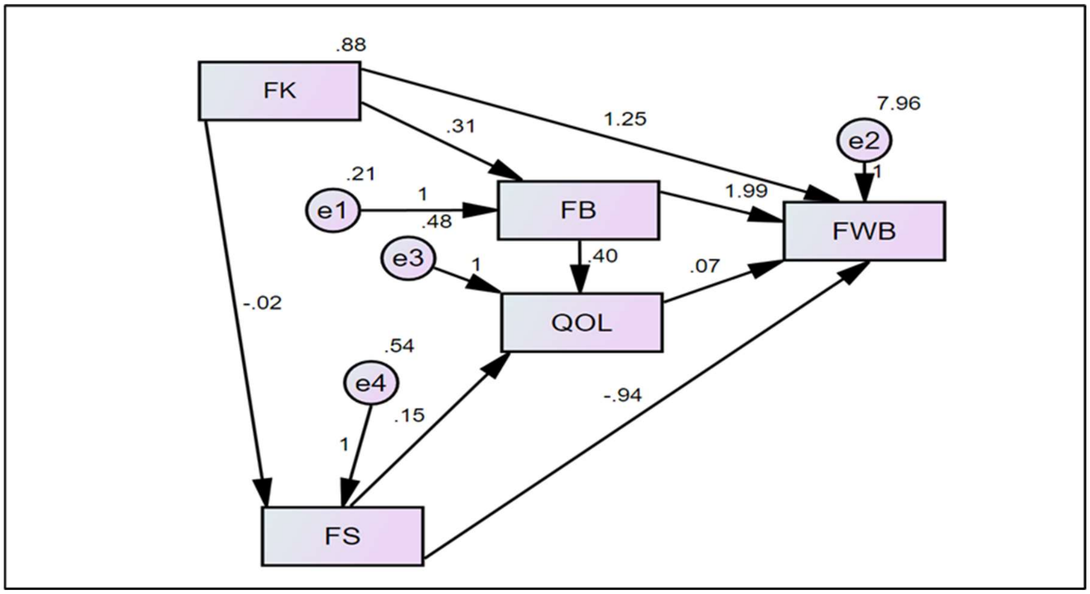

Figure 3:Structural Equation Modellling

4.3.4 Mediation Analysis

Mediation is a form of inter relationship among variables. It can be examined through path analysis and Structural Equation Modeling. It simplifies complex models involving many independent, dependent, and mediated variables. (Poespowidjojo, Ahmad, & Mahmoud , 2020) Path analysis is a series of regression equations that explain paths between independent and dependent variables, while SEM is based on the likelihood maximization method.

H6: Quality of Life mediates the relation between Financial stress and Well Being

The relation between independent and dependent and dependent variable i.e. financial Stress and Well Being must decrease on adding mediator variable to confirm the mediation effect.

The result of mediation shows that QOL act as a mediating variable between financial Stress and Well Being, as relationship between both is significantly affected on entering mediating variable. The direct effect was depicted in figure 4 as regression estimate being equal to 0.20 and p value less than 0.05 level of significance, showing significant influence of financial Stress on Well Being.While QOL enters model as mediator variable it is showing that regression estimate increased to .22 with p value less than 0.05 level of significance as shown in figure 5. Result verifies that mediator increased the effect of financial stress on well being however relation between both dependent and independent variable is still significant, making it a case of competitive partial mediation

Without Mediator in Model							
			Estimates	**S.E.**	**C.R.**	**P**	**Results**
Well Being	<---	FinancialStress	.20	.063	3.1	***	Significant
With Mediator in the model							
Well Being	<---	FinancialStress	.22	.013	3.428	***	Significant
QOL	<---	FinancialStress	-.76	.301	-2.43	.011	NotSignificant

Well Being	<---	QOL	.03	.064	2.118	***	Significant

Table 4 : Mediation Analysis

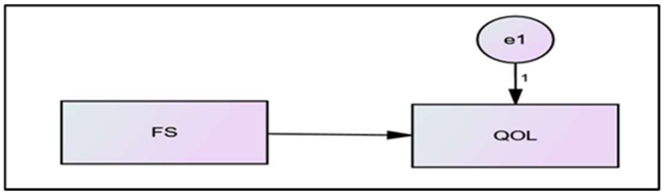

Figure 4: Direct effect model

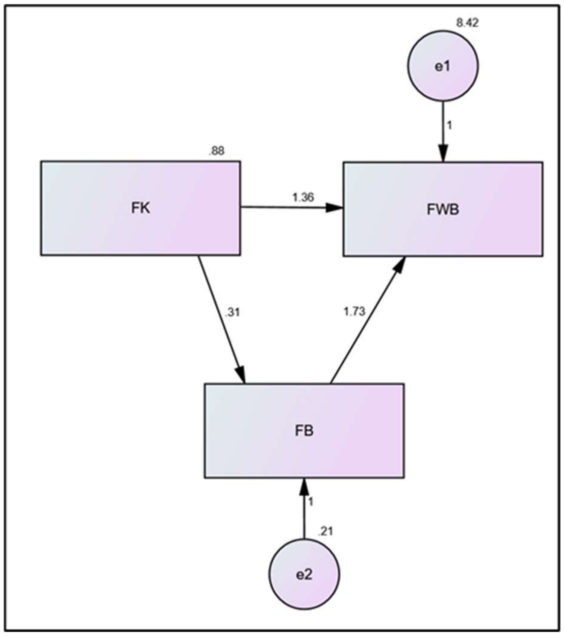

Figure 5 Indirect Total effect Model

H7 : Financial Behaviour mediates the relation between Financial knowledge and Well Being

The relation between independent and dependent and dependent variable i.e. financial Knowledge and Well Being must change on adding mediator variable to confirm the mediation effect.

The result of mediation shows that Behaviour act as a mediating variable between financial Knowledge and Well Being, as relationship between both is significantly affected on entering mediating variable. The direct effect was depicted in figure 6 as regression estimate being equal to 1.89 and p value less than 0.05 level of significance, showing significant influence of financial Knowledge on Well Being.While Behaviour enters model as mediator variable it is showing that regression estimate increased to 1.36 with p value less than 0.05 level of significance as shown in figure 7. Result verifies that mediator decreased the effect of financial Knowledge on Well Being however relation between both dependent and independent variable is still significant, making it a case of partial mediation.

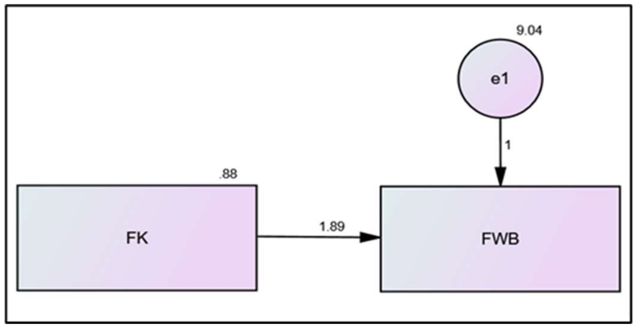

Figure 6 Direct Effect Model

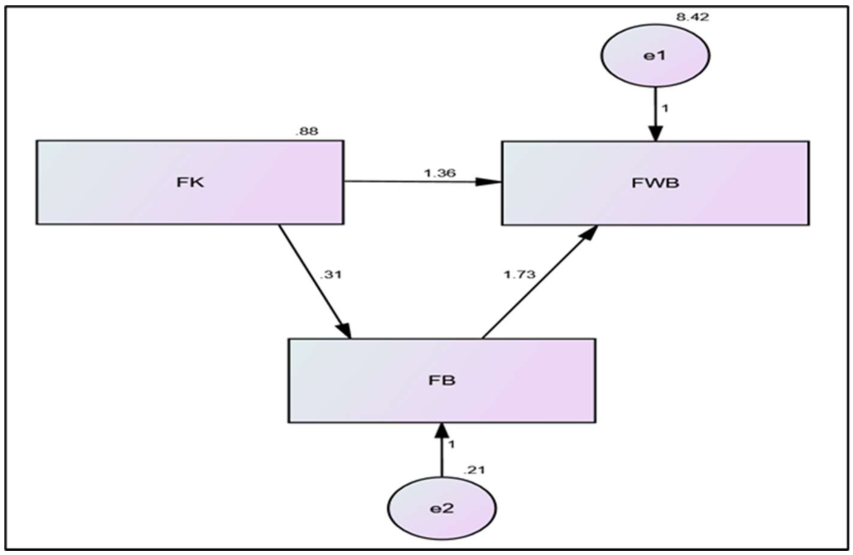

Figure 7 Total Effect Model

5. Findings and Conclusion

The relationship between demographic variables and financial behavior, quality of life, and financial well-being, would likely state that there is a significant association between demographic variables and the three variables. In other words, the study have found that factors such as age, gender, income, education level, and occupation are positively or negatively associated with financial behavior, quality of life, and financial well-being. The study have found that certain demographic groups, such as older adults or low-income individuals, are more likely to engage in negative financial behaviors, which can lead to lower levels of quality of life and financial well-being. On the other hand, certain demographic groups, such as higher-income individuals or those with higher levels of education, be more likely to engage in positive financial behaviors, which can lead to higher levels of quality of life and financial well-being. The study also suggest that demographic variables play a role in shaping an individual's financial behaviors, which then influence their quality of life and financial well-being. This would suggest that understanding the specific needs and characteristics of different demographic groups be important for developing targeted financial education and interventions to promote positive financial behaviors, quality of life and financial well-being.

The study have found that an individual's level of financial knowledge is positively associated with their quality of life. Individuals with higher levels of financial knowledge tend to have better financial outcomes, such as a higher ability to manage their finances, lower levels of debt and greater financial security. These positive financial outcomes are likely to lead to a better quality of life. The study also suggest that individuals with more financial knowledge tend to have a greater sense of control over their financial situation, which can lead to a reduction in stress and an overall improvement in well-being.

The study also suggest that financial knowledge is an important predictor of quality of life and that increasing financial knowledge can lead to an improvement in overall well-being. This would suggest that financial education programs and interventions targeting individuals with low levels of financial knowledge be effective in promoting positive financial outcomes and improving quality of life.

The study have found that an individual's financial behavior, such as budgeting, saving, investing, and avoiding debt, is positively or negatively associated with their level of financial stress.The individuals who engage in positive financial behaviors, such as creating a budget and saving regularly, tend to have lower levels of financial stress. On the other hand, individuals who engage in negative financial behaviors, such as overspending or accumulating high levels of debt, experience higher levels of financial stress. The study also suggest that financial behavior is an important predictor of financial stress, and that changing financial behaviors can lead to a reduction in financial stress.

This would suggest that interventions and education programs that promote positive financial behaviors be effective in reducing financial stress and improving overall well-being. Additionally, the study also suggest that addressing the underlying reasons behind negative financial behaviors, such as lack of knowledge, lack of self-regulation or lack of access to financial resources, also be important in reducing financial stress.

The relationship between financial knowledge and well-being, with financial behavior as a mediator, would likely state that financial behavior plays a significant role in the relationship between financial knowledge and well-being. In other words, the study have found that an individual's financial behavior (such as budgeting, saving, investing, and avoiding debt) is positively associated with both their level of financial knowledge and their well-being. Additionally, the study have found that financial behavior act as a mediator between financial knowledge and well-being, which means that the relationship between financial knowledge and well-being is partly explained by an individual's financial behavior.

The study have also found that financial behavior can be influenced by financial knowledge and that individuals with higher levels of financial knowledge tend to engage in more positive financial behaviors, which in turn can lead to better financial outcomes and higher levels of well-being. This would suggest that increasing financial knowledge be an important step in promoting positive financial behavior and improving well-being.

The relationship between financial stress and well-being, with quality of life as a mediator, would likely state that quality of life plays a significant role in the relationship between financial stress and well-being. In other words, the study have found that an individual's quality of life (such as overall satisfaction with life, happiness, and physical and mental health) is positively or negatively associated with both their level of financial stress and their well-being. Additionally, the study have found that quality of life act as a mediator between financial stress and well-being, which means that the relationship between financial stress and well-being is partly explained by an individual's quality of life.

The study have also found that individuals who experience high levels of financial stress tend to have lower quality of life and well-being. Additionally, the study have found that quality of life can act as a buffer, meaning that individuals with high quality of life be able to cope better with financial stress, and thus have better well-being.Overall, the study suggest that financial stress can have a negative impact on an individual's well-being, and that improving quality of life be an important step in reducing the negative effects of financial stress on well-being.

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