The Mediating Role of Rational Buying in the Relationship between Financial Literacy and Financial Well-being

Amir Shusha

Faculty of Commerce, Damietta University, PO box 34519, New-Damietta, Egypt

Abstract

Recently, financial well-being has become a growing topic of interest among personal financial researchers and personal financial planners. The study aims to investigate the demographic and personal financial knowledge determinants of financial well-being among Egyptians. Using data sample of 386 respondents and multiple regression analysis, the results display that gender, age, educational level, income and marital status are demographical determinants of financial well-being. Moreover, the results demonstrate that financial literacy and rational buying are knowledge and behavioural determinants of financial well-being. Furthermore, the results of Baron and Kenny approach to test the mediating role show that rational buying partially mediates the relationship between financial literacy and financial well-being. The results are discussed from the perspective of the theory of planned behaviour and motivation theory.

Keywords: Financial literacy, financial well-being, rational buying behaviour

1. Introduction

In recent times, the topic of financial well-being dominates the attention of researchers of personal finance, financial planners, and financial counselors. Perceived financial well-being is positive related to one's overall psychological well-being (Norvilitis et al., 2003). Likewise, Plagnol (2011) showed that financial well-being is a main component of overall life satisfaction and well-being. Unfortunately, there are many indicators of growing the negative pole of financial well-being or financial distress phenomenon such as increasing credit card debt, insufficient savings, high default rates, low saving rates and low asset accumulation rates (O'Neill et al., 2006).

Kim and Garman (2003) defined financial distress as "worry about money affects many aspects of a person's life, including health and job productivity." This definition is extended to the outcomes of financial distress. Another definition of financial distress is provided by Prawitz and et al. (2006a) as "a reaction to the condition of one's personal financial state." But the individual reaction to financial state can be positive or negative. Therefore, they distinguished between the negative and the positive individual reaction toward his financial state, where the negative individual reaction toward his financial state represents financial distress and the positive individual reaction toward his financial state is financial well-being. Add to that, O'Neill and et al. (2006) explored that financial distress is a subjective phenomenon, where individuals are aware of the different levels of financial distress or financial well-being even at the same levels of income and economic resources.

According to Yates and Ward (2012) Associated Press conducted survey in June 2011 about financial personal Americans' worries. The results of this survey showed increasing Americans' worries about their financial situation up to 17 percent comparing with the conducted survey in 2010. Moreover, the results of the survey reported that married moms and adults under 30 years old showed significantly more anxiety and recorded that more than 40 million Americans are feeling worry over the money they owe, whether it's for credit cards, car loans, mortgages or other debts. Therefore, financial literacy introduced as a solution of attenuating financial problems of individuals and families (Huston, 2010). Nevertheless, governments around the world have a state of clarified anxiety about the lower financial literacy among their citizens (Atkinson and Messy, 2011). Prawitz and Cohart (2014) defined financial capability as the capacity to manage financial resources suitably. Huston (2010) reviewed literature of financial literacy and proposed that financial literacy is defined as a process of understanding and applying financial concepts and developing techniques to manage financial resources effectively.

2. Literature review

This section will discuss previous studies with regard to the main study variables. For this purpose, the section is divided into three subsections covering the main variables of the study which contain financial well-being, financial literacy and rational buying.

2.1 Financial well-being

O'Neill et al. (2006) explored the relationship among financial distress, financial well-being and health. They demonstrated that lower financial distress and higher financial well-being reported better health. Add to that, they documented better health for debt management program clients and those reporting fewer negative financial events. Moreover, Taft et al. (2013) studied the relationship among financial literacy, financial wellbeing and financial concerns. Their results demonstrated that age and education were positively related to financial literacy and financial wellbeing. In addition, married people and men were more financially literate. Higher financial literacy led to greater financial well-being and less financial anxieties. Higher financial wellbeing led to less financial worry. Similarly, Archuleta et al. (2013) in a sample of 180 college students explored determinants of financial anxiety. Their results demonstrated that financial satisfaction, debt level and gender are associated with financial anxiety.

Norvilitis and colleagues (2006) reported that significant reductions in financial well-being occurred among individuals with higher levels of debts. On the contrary, Bonke and Browning (2009) demonstrated that people with higher income levels were more likely to report satisfaction about their overall financial well-being. Similarly, Plagnol (2011) showed that personal income was positively related to financial satisfaction. Add to that, Gutter and Copur (2011) explored the relationship between financial behaviour and financial well-being among 15,797 students from 15 college campuses throughout the United States via an online survey. They reported significant differences on the financial well-being level by various demographical factors and financial behaviour. Moreover, their results displayed that budgeting, saving, risky credit card behaviour, and compulsive buying were significantly correlated to financial well-being.

Particularly, Malone et al. (2010) examined perceptions of financial well-being among American women via a nationwide web. They showed that the majority of women had conservative buying behaviour, had desire to financial independence, had a somewhat negative view of their current financial situation, had worries about retirement and their financial futures, and considered long term care insurance a necessity. In addition, their results showed that women who were older, more educated, higher income, and more contributed to the household income had more positive perceptions of their financial situation.

In 2014, Vosloo et al. explored the impact of financial efficacy and satisfaction with remuneration on financial well-being using a sample of 9,057 employees from different sectors in South Africa. Their results indicated that financial efficacy and satisfaction with remuneration had a positive effect on financial well-being. Add to that, the relationship between remuneration satisfaction and financial well-being was stronger among people with higher financial efficacy. Moreover, Lim et al. (2014) investigated the relationship between financial stress and financial help-seeking behaviour utilizing among 2,010 of Ohio students, and the moderating role of financial self-efficacy on this relationship. Their results indicated that those who had a financial education course had larger current loan, higher levels of financial stress, and high financial self-efficacy were more likely to adopt financial help-seeking behaviour. Add to that, they demonstrated that financial self-efficacy moderated the relationship between financial stress and financial help-seeking behaviour utilizing.

2.2 Financial literacy

In the field of demographical determinants of financial literacy, Chen and Volpe (1998) examined personal financial literacy among 924 of American students. They studied the relationship between students' characteristics and financial literacy, and the impact of financial literacy on their financial opinions and decisions. They showed that non-business major, women, lower age and lower work experience had lower levels of financial literacy, and these lower levels of financial literacy led them to adopt wrong financial opinions and decisions. Moreover, Murphy (2005) examined the influence of race, age, major and parental education level on financial literacy among 277 respondents of black college students. Using the variance analysis, he indicated that differences among respondents were significant according to age, major and parental education level. In addition, he used the logistic regression to show that race, major, and parental education level were explanatory factors to financial literacy.

In South Africa, Kojo Oseifuah (2010) assessed the level of financial literacy among youth and its impact on entrepreneurship. His results appeared financial literacy among youth entrepreneurs above average, and it had significantly contributes to their entrepreneurship skills. Add to that, he showed that levels of education and training had significantly impact on financial literacy and entrepreneurial skills, which have significant implications for small businesses development and growth for the youth entrepreneurs.

Bucher-Koenen and Lusardi (2011) examined financial literacy among Germans. Their results indicated lacking financial knowledge among women, the less educated, and those living in East Germany, especially those with low education and low income. Interestingly, there was no gender disparity in financial knowledge in the East Germany. They also investigated the causality relationship between financial literacy and retirement planning and found a positive impact of financial knowledge on retirement planning. In addition, Shahrabani (2012) investigated the determinants of intent to control a personal budget among college students. His results indicated that intentions of students to govern their personal budget were affected by past debt frequency, the level of negative emotions experienced when their bank account was meaningfully overdrawn, financial literacy level, income and nationality. Moreover, his results showed that positive attitudes toward financial management moderated the negative relationship between past debt frequency and the intention to control the personal budget. In addition, financial literacy had positive impact on intents to control the personal budget.

In another development, Landerretche and Martínez (2013) used a variation in the household composition of Chileans to show that individuals with greater knowledge about the pension system were more likely to have additional financial savings. They found that improving in the pension literacy survey had positive influence on the individual tendency to save. Moreover, they introduced evidence that pension literacy had significantly effect on worker choices regarding their pension savings. Their result also showed that more literate employees were more likely to involve in pension fund type switching.

In the Arab environment, Ibrahim and Alqaydi (2013) explored financial literacy among a sample of individuals residing in the United Arab Emirates and its relationship with personal debt. They indicated that the average level of financial literacy in UAE was lower than the average level reported in the literature. In addition, they found that differences in the level of financial literacy between males and females were not significant. Moreover, their results reported that tendency of individuals to borrow was less likely with high level of financial literacy.

2.3 Rational buying

On the other hand, Rook and Gardner (1993) defined impulse buying as unplanned purchase which characterized by tendency to make purchasing decision rapidly and a subjective bias to possess instantly. According to Hoch and Loewenstein (1991) highly impulsive buyers are likely to be emotionally attracted to thing, and to satisfy their desires immediately. Those individuals are less likely to pay attention to potential negative consequences of their buying behaviour. Therefore, the purchasing decisions can classify as rational or irrational decisions (Kacen and Lee, 2000). The purchasing decision is rational when taken depending on logical thought processes, and irrational or emotional when taken depending on emotional wants not logical needs.

Depending on literature review, financial literacy may have financial, psychological and physical implications. This study is aims to explore whether financial well-being among Egyptians is positively or negatively influenced by financial literacy and rational buying behaviour. Add to that, this study aims also at testing whether rational buying behaviour mediates or not the relationship between financial literacy and financial well-being. Consequently, the study hypotheses are:

H1. Financial well-being is positively related to financial literacy.

H2. Rational buying is positively related to financial literacy.

H3. Financial well-being is positively related to rational buying.

H4. Rational buying mediates the relationship between financial literacy and financial well-being.

3. Methodology

This section describes the experimental methodology conducted in the current study. Firstly, the gathering method of data and the sample characteristics are described. Secondly, the measures of the three main variables are depicted, and their validity and reliability are tested. Thirdly, the regression equations which design to test the study hypotheses are formulated.

3.1 The study sample

This study depends on a questionnaire to collect the required data. A team of assistants' researcher distributes 500 questionnaires on Egyptian individuals within June of 2015. The response rate is about 81%. However, the effective response rate is about 77% because of the missing data of some questionnaires. Table 1 describes the characteristics of the study sample. Roughly 57% of the sample was comprised of males and 43% of females. With regard to age, nearly 38% of the respondents were less than 30 years, 40% ranging from 30 to less than 45 years, and 22% more than 45 years. In terms of educational level, approximately 25% of the respondents have high school, 57% college degree, and 21% high diploma, or Master's or PhD degree. In connection with monthly income, around 31% of the respondents were less than Egyptian Pound (EP) 3,000, 36% more than 3,000 and less than 5,000, and 33% more than EP 5,000. Regarding of marital status, roughly 35% of the sample was included of singles, 40% of married persons, 14% of divorces, and 11% of widows.

Table 1. Sample characteristics

Variables	Number	Percent
Gender		
Male	221	57.3
Female	165	42.7
Age		
Less than 30 years	148	38.3
From 30 to 45 years	155	40.2
More than 45 years	83	21.5
Educational Level		
High school	98	25.3
College degree	207	53.6
High diploma or Master's or PhD degree	81	21.1
Monthly income		
Less than EP 3,000	119	30.8
From EP 3,001 to EP 5,000	140	36.3
More than EP 5,000	127	32.9
Marital status		
Single	134	34.7
Married	155	40.2
Divorce	54	14
Widow	43	11.1
Number of observations	386	100

3.2 Measures and its validity and reliability

With regard to demographical variables, gender was measured on binary scale where 1 means male and 0 means female. Age was measured on tri-scale where 1 means the age of respondent was less than 30 years, 2 means the age of respondent ranging from 30 to less than 45 years, and 3 means the age of respondent more than 45 years. Also the educational level was measured on tri-scale where 1 means the respondent had high school, 2 means the respondent had college degree, and 3 means the respondent had any certificate of high diploma or master's or PhD degree. Monthly income of respondents was measured on tri-scale as well, where 1 means the income of respondent was less than three thousand EP, 2 means the income of respondent was ranging from three thousand to five thousands EP, and 3 means the income of respondent was more than five thousands EP. Moreover, the marital status was measured on 4 point scale, where 1 means the respondent was single, 2 means the respondent was married, 3 means the respondent was divorce, and 4 means the respondent was widow.

3.3 Financial literacy scale

Chen and Volpe (1998) designed a comprehensive questionnaire to measure the following aspects of financial literacy: general personal financial knowledge, saving and borrowing, insurance, and investments. That questionnaire is a cornerstone in developing the 16-items questionnaire of this study. Some amendments conduct to create financial literacy questionnaire suitable Arabic culture, also the validity of the scale evaluates by principal components extraction of factor analysis. The results of principal components extraction illustrate in Table 2 and show that item loadings range from 0.43 to 0.85 which means each item of the16-items add value to the scale, where the standardized value of item loading equal 0.4 accordingly to Hinkin (1995). Add to that, the results of Cronbach's alpha test of the 16-items questionnaire show that the reliability coefficient is 0.82, which means that the study financial literacy scale is reliable according to Nunnaly and Bernstein (1994). Financial literacy was measured on binary scale where 1 means answer of the responder was correct and 0 means answer of the responder was wrong.

Table 2. The results of factor analysis of statements of financial literacy

Statements	Factor loading
Personal financial planning involves preparing plans for future financial needs and goals.	0.59
Personal financial literacy leads healthy spending habits.	0.83
Money invested in a certificate of deposit is more liquid than checking account.	0.79
The personal net worth is the difference between expenditures and income.	0.86
Saving accounts in a commercial bank are insured by central bank.	0.81
Deposit EP 1.000 at 5% for a year mean that balance in a year will be higher if the interest rate is compounded monthly rather than quarterly.	0.43
The interest rate on credit card is higher than the rate of return on a certificate of deposit.	0.77
Personal credit report is received from a commercial bank.	0.68
The main purpose to purchase insurance provides protection from loss occurred recently.	0.70
Type and age of vehicle is one of premium determinants.	0.75
Risks such as war, flood, and earthquake cover by a homeowner policy.	0.71
A term insurance policy is lower expensive than life insurance.	0.62
High-risk high return investment strategy is more suitable for a young couple than an elderly retired couple.	0.54
If interest rate rises, the price of a bond will increase.	0.82
Investing in a single stock is safer than a mutual fund.	0.58
A mutual fund is a diversified collection of securities used as an investment vehicle.	0.47

3.4 Buying rational behaviour scale

Depending on the scale of Malone et al. (2010) which created to measure buying behaviour, this study develop 7-items scale to measure buying behaviour. The seven items scale is developed to assess the self-report of responders toward their buying habits. The responses range from 1 (strongly agree) to 5 (strongly disagree) except reverse items which range from 1 (strongly disagree) to 5 (strongly agree). The factor analysis using principal components extraction and Cronbach's alpha test is conducted. As shown in Table 3, the results indicate that the seven-items of buying behaviour scale are measured one factor. Item loadings on this factor range from 0.56 to 0.83 which means that each item adds value to the scale. Moreover, the results of Cronbach's alpha test show that the coefficient of buying behaviour scale is 0.83 which means the scale is reliable.

Table 3. The results of factor analysis of items of rational buying behaviour

Items	Factor loading
I buy only things I need	0.83
I try to keep life simple as far as possible	0.82
I own some things aren't important to me (R)	0.69
I enjoy spending money on things that aren't feasible (R)	0.56
I enjoy buying things (R)	0.71
I like luxury life (R)	0.66
I spend my money carefully	0.80

Where (R) refers reverse item

3.5 Financial well-being scale

According to Hira and Mugenda (1998) financial well-being is perceived individual satisfaction about his/her income, ability to handle financial emergencies, ability to meet basic necessities, debt level, amount of savings, and money for future financial needs. Financial well-being has been generally measured by one's overall level of satisfaction with his/her financial situation (Archuleta et al., 2013). Prawitz et al. (2006a) developed the financial distress/financial well-being scale. They designed their scale to reflect responses of one's financial state which ranked from the lowest level of financial well-being (the highest level of financial distress) to the highest level of financial well-being (the lowest level of financial distress). Prawitz et al. (2006b) tested the credibility and reliability of the financial well-being, their results demonstrated that the scale is valid and reliable.

This study develops a seven items self-report subjective scale to measure financial well-being depending on the scale of Prawitz and colleagues. Each item measures on five-Likert scale. The responses range from 1 (strongly disagree) to 5 (strongly agree) except reverse items which range from 1 (strongly agree) to 5 (strongly disagree). The factor analysis using principal components extraction and Cronbach's alpha test are conducted. As shown in Table 4, the results indicate that the seven-items of financial well-being scale are measured one factor. Item loadings on this factor range from 0.77 to 0.91 which means that each item adds value to the scale. The results of Cronbach's alpha test show that the coefficient of financial well-being scale is 0.79 which means the scale is reliable.

Table 4. The results of factor analysis of items of financial well-being

Items of financial well-being scale	Factor loading
At the present time, I feel financial stress.	0.84
I feel satisfied about my current financial situation. [(R)]	0.81
I feel worried about my present financial situation.	0.77
I worry about my ability to meet normal monthly living expenses.	0.89
I am confident in my ability to overcome a financial emergency that costs about EP 1,000. [(R)]	0.83
I just getting my financially and living needs from salary to salary.	0.79
In general, I feel stressed about my personal finance.	0.91

Where [(R)] refers reverse item

The study is based on Pearson correlation to test the relationships among the study variables. Add to that, the multiple regression analysis is applied to test the effects of financial literacy on financial well-being, the effects of financial literacy on relational buying behaviour, the effects of relational buying behaviour on financial well-being, and the effects of both financial literacy and relational buying behaviour on financial well-being. These regression models are depicted in the following:

$$FWB = \beta_0 + \beta_1 GEN + \beta_2 AGE + \beta_3 EL + \beta_4 MI + \beta_5 MS + \beta_6 FL + u \quad (1)$$

$$RBB = \beta_0 + \beta_1 GEN + \beta_2 AGE + \beta_3 EL + \beta_4 MI + \beta_5 MS + \beta_6 FL + u \quad (2)$$

$$FWB = \beta_0 + \beta_1 GEN + \beta_2 AGE + \beta_3 EL + \beta_4 MI + \beta_5 MS + \beta_6 RBB + u \quad (3)$$

$$FWB = \beta_0 + \beta_1 GEN + \beta_2 AGE + \beta_3 EL + \beta_4 MI + \beta_5 MS + \beta_6 FL + \beta_7 RBB + u \quad (4)$$

Where:
FWB points to financial well-being; *GEN* points to gender; *AGE* points to age; *EL* points to the educational level; *MI* points to monthly income; *MS* points to marital status; *FL* points to financial literacy; *RBB* points to rational buying behaviour, u points to $error$.

4. Results and Discussion

The results of descriptive statistics depict in Table 5. The second column of this table displays the mean of each study variable and the third column shows the standard deviation of each variable. The remainder of the table presents correlation matrix among study variables. The results of Pearson correlation analysis indicates significant correlation coefficients among study variables sometimes at significant level of 1% and other times at significant level of 5%. In particular, the results show that significant of correlation coefficients among financial literacy and both rational buying behaviour and financial well-being. As well as, the results indicate to the significant of correlation coefficient between rational buying behaviour and financial well-being.

Table 5. Means, standard deviations and the results of Pearson correlation analysis among study variables

Study variables	Mean	S.D	1	2	3	4	5	6	7
1. Gender	0.6	0.08							
2. Age	38.3	4.1	0.05						
3. Educational level	1.9	0.32	0.11*	0.13*					
4. Monthly income	2877	412	0.14*	0.31**	0.24**				
5. Marital status	1.83	0.43	0.06	0.42**	0.16**	0.42**			
6. Financial literacy	3.4	0.6	0.19**	0.28**	0.33*	0.22**	0.12*		
7. Rational buying behaviour	3.1	0.8	0.24**	0.23**	0.41**	0.39**	0.33**	0.58**	
8. Financial well-being	2.9	0.5	0.31**	0.37**	0.31**	0.56**	0.09-	0.44**	0.37**

Note. *ρ< 0.05; **ρ< 0.01

The results of regression analysis depict in Table 6. These results indicate that the four regression models are significant at the significant level of 1%. Add to that, the results of the first model show that each of gender, educational level, monthly income, and financial literacy are determinants of financial well-being. The explanatory power of this model is 32%, which mean that the change of those determinants interpret 32% of variance in financial well-being of responders. Moreover, the parameters of the second model indicate that each of age, educational level, marital status, and financial literacy are predictors of rational buying behaviour. The explanatory power of second model is 44%, which mean that those determinants explain 44% of variance in rational buying behaviour. In addition, the third model results display that each of gender, age, monthly income, and rational buying behaviour are determinants of financial well-being. The interpretive power of third model is 39%, which means that the change of those determinants explains 39% of variance in financial well-being. Furthermore, the results of the fourth model show that each of age, monthly income, financial literacy and rational buying behaviour are predictors of financial well-being. The explanatory power of fourth model is 56%, which mean that the change of those determinants explain 56% of variance in financial well-being.

The results depict that significant of the first three models, which is required to test the mediating role according to Baron and Kenny (1986). Moreover, the results show that the β coefficient of financial literacy as predictor for financial well-being reduces from 0.47 in the first model to 0.31 in the fourth model. According to Baron and Kenny approach, this result illustrates that rational buying behaviour intervene the relationship between financial literacy and financial well-being. Although, the β coefficient of financial literacy as predictor of financial well-being in model four is still significant. Therefore, the mediating role of rational buying behaviour in the relationship between financial literacy and financial well-being is just partial. This result is a clear signal to exist other factors such as financial self-efficacy that can inquire the relationship between financial literacy and financial well-being, which is a proposal for a new research. Add to that, the β coefficient of financial literacy as predictor for financial well-being reduces from 0.47 in the first model to 0.31 in the fourth model. Judd and Kenny (1981) suggested estimating the indirect effect of dependent variable by changing in the β coefficient in case of inserting another dependent variable to the regression model. Therefore, the difference between the two β coefficients of financial literacy (0.16) represents its indirect effect on financial well-being.

Table 6. The results of multiple regression analysis

Variables	Financial well-being	Rational buying	Financial well-being	Financial well-being
Regression models	First model	Second model	Third model	Forth model
	β(Sig.)	β(Sig.)	β(Sig.)	β(Sig.)
Constant	0.16*	0.38**	0.15*	0.07
Gender	0.12*	0.10	0.20**	0.04
Age	0.09	0.19**	0.11*	0.10*
Educational level	0.17**	0.011*	0.08	0.07
Monthly income	0.28**	0.08	0.21**	0.11*
Marital status	-0.07	0.14*	-0.05	-0.02
Financial literacy	0.47**	0.29**		0.31**
Rational buying			0. 39**	0.27**
$F^{(Sig.)}$	57.81**	89.11**	64.12**	114.23**
R^2	0.32	0.44	0.38	0.56

Note. *ρ< 0.05; **ρ< 0.01

Results of the study can be interpreted in the light of the theory of planned behaviour, which one of the most effective and widespread conceptual frameworks for studying and justifying of buying behaviour. Generally, Ajzen (2001) stated that there are three determinants of human behaviour: beliefs about the likely consequences of behaviour, beliefs about the normative expectations of other people, and beliefs about the presence factors that may promote or hinder behaviour. These beliefs produce a favorable or unfavorable attitude toward behaviour and give rise to perceived behavioural control. Therefore, individuals with high awareness of the consequences of their purchasing behaviour and those with high control on their buying behaviour adopt rational buying behaviour rather than emotional buying behaviour. Add to that, individuals who adopt rational buying behaviour perceive high level of financial well-being.

On the other hand, the ability to use knowledge and skills to manage personal financial resources effectively leads to financial well-being for a lifetime. Therefore, financial literacy as applicable knowledge and skills is one of the most successfully entrances to raise individual awareness of financial well-being. Add to that, the study results can be interpreted in the context of the motivation theory. Motivation has long been recognized as key drivers of individual behaviour. According to the study results, the belief grew up that desire for a sense of financial well-being may be employed as key drivers of individual buying behaviour and to stimulate desire for financial literacy. Therefore, the nature of the relationship between financial literacy and financial well-being is more likely reciprocal relation, but this prophecy needs to empirical evidence which may focus of future study.

The results of this study should be considered with regard to its limitations. Similar to other studies in this field (e.g. Norvilitis et al., 2003; O'Neill et al., 2006; Steen and Mackenzie, 2013; Vosloo et al., 2014) this study used cross-sectional where the study variables measured at the certain point of time, and with regard to measure of financial well-being and rational buying behaviour, the study used self-report style. These limitations may limit the study conclusions and may limit generalization of the study results. Nevertheless, the results are consistent with literature of financial literacy and its consequences, as well as literature of financial well-being and its antecedents.

5. Conclusion

Financial literacy is certainly an important topic for researchers and practitioners, as well as for people and governments. There are some reports point out financial literacy is significantly related to financial well-being, financial satisfaction, financial stress, homelessness risk and retirement risk (Norvilitis et al., 2003; O'Neill et al., 2006; Steen and Mackenzie, 2013; Vosloo et al., 2014). The current study is among few – if not the only study – to contribute to discovering financial literacy among Egyptians. The study looked at financial literacy and its relationships with dependent variables of financial well-being and rational buying behaviour.

The study also aimed at testing the mediating role of rational buying behaviour in the relationship between financial literacy and financial well-being. Using data gathering from 386 of Egyptian responders, the study results found that financial well-being and rational buying were positively related to financial literacy and rational buying was positively related to financial literacy. Moreover, rational buying partially mediated the relationship between financial literacy and financial well-being. The study results interpreted in the context of the unplanned theory and the motivation theory. The results raised several issues such as, there are multiple variables may intervene the relationship between financial literacy and financial well-being, and the reciprocal relationship between financial literacy and financial well-being.

The study provides some recommendations. Firstly, educational institutions should insert some topics on financial culture in curriculum at all educational levels. Secondly, mass media should seek to spread financial literacy among people. Thirdly, financial institutions should contribute to a social role through the dissemination of financial literacy among citizens especially after hard times experienced by Egypt recently. These procedures are more likely to contribute in improving financial consciousness for citizens, improving the feelings of financial well-being among Egyptians, and may alleviate the burden on the government.

References

Ajzen, I. (2001). Nature and operation of attitudes. Annual review of psychology, 52(1), 27-58. http://dx.doi.org/10.1146/annurev.psych.52.1.27

Archuleta, K. L., Dale, A., & Spann, S. M. (2013). College students and financial distress: Exploring debt, financial satisfaction, and financial anxiety. Journal of Financial Counseling and Planning, 24(2), 50-62.

Atkinson, A., & Messy, F. A. (2011). Assessing financial literacy in 12 countries: an OECD/INFE international pilot exercise. Journal of Pension Economics and Finance, 10(04), 657-665. http://dx.doi.org/10.1017/S1474747211000539

Bonke, J., & Browning, M. (2009). The distribution of financial well-being and income within the household. Review of Economics of the Household, 7(1), 31-42. http://dx.doi.org/10.1007/s11150-008-9044-3

Bucher-Koenen, T., & Lusardi, A. (2011). Financial literacy and retirement planning in Germany. Journal of Pension Economics and Finance, 10(04), 565-584. http://dx.doi.org/10.1017/S1474747211000485

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. Financial services review, 7(2), 107-128. http://dx.doi.org/10.1016/S1057-0810(99)80006-7

Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. Journal of Family and Economic Issues, 32(4), 699-714. http://dx.doi.org/10.1007/s10834-011-9255-2

Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. Journal of management, 21(5), 967-988. http://dx.doi.org/10.1177/014920639502100509

Hira, T. K., & Mugenda, O. M. (1998). Predictors of financial satisfaction: Differences between retirees and non-retirees. Financial Counseling and Planning, 9(2), 75-83.

Hoch, S. J., & Loewenstein, G. F. (1991). Time-inconsistent preferences and consumer self-control. Journal of consumer research, 17,492-507. http://dx.doi.org/10.1086/208573

Huston, S. J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296-316. http://dx.doi.org/10.1111/j.1745-6606.2010.01170.x

Ibrahim, M. E., & Alqaydi, F. R. (2013). Financial literacy, personal financial attitude, and forms of personal debt among residents of the UAE. International Journal of Economics and Finance, 5(7), 126-138. http://dx.doi.org/10.5539/ijef.v5n7p126

Judd, C. M., & Kenny, D. A. (1981). Process analysis estimating mediation in treatment evaluations. Evaluation review, 5(5), 602-619. http://dx.doi.org/10.1177/0193841X8100500502

Kacen, J. J., & Lee, J. A. (2002). The influence of culture on consumer impulsive buying behavior. Journal of consumer psychology, 12(2), 163-176. http://dx.doi.org/10.1207/S15327663JCP1202_08

Kim, J., & Garman, E. T. (2003). Financial stress and absenteeism: An empirically derived research model. Financial Counseling and Planning, 14(1), 31-42.

Kojo Oseifuah, E. (2010). Financial literacy and youth entrepreneurship in South Africa. African journal of Economic and management studies, 1(2), 164-182. http://dx.doi.org/10.1108/20400701011073473

Landerretche, O. M., & Martínez, C. (2013). Voluntary savings, financial behavior, and pension finance literacy: evidence from Chile. Journal of Pension Economics and Finance, 12(03), 251-297. http://dx.doi.org/10.1017/S1474747212000340

Lim, H., Heckman, S. J., Montalto, C. P., & Letkiewicz, J. (2014). Financial Stress, Self-Efficacy, and Financial Help-Seeking Behavior of College Students. Journal of Financial Counseling and Planning, 25(2), 148-160.

Malone, K., Stewart, S. D., Wilson, J., & Korsching, P. F. (2010). Perceptions of financial well-being among American women in diverse families. Journal of Family and Economic Issues, 31(1), 63-81. http://dx.doi.org/10.1007/s10834-009-9176-5

Murphy, A. J. (2005). Money, money, money: An exploratory study on the financial literacy of black college students. College student journal, 39(3), 478-488.

Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit-card debt in college students1. Journal of Applied Social Psychology, 36(6), 1395-1413. http://dx.doi.org/10.1111/j.0021-9029.2006.00065.x

Norvilitis, J. M., Szablicki, P. B., & Wilson, S. D. (2003). Factors Influencing Levels of Credit-Card Debt in College Students. Journal of Applied Social Psychology, 33(5), 935-947. http://dx.doi.org/10.1111/j.1559-1816.2003.tb01932.x

Nunnaly, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd ed). New York: McGraw-Hill.

O'Neill, B., Prawitz, A. D., Sorhaindo, B., Kim, J., & Garman, E. T. (2006). Changes in health, negative financial events, and financial distress/financial well-being for debt management program clients. Journal of Financial Counseling and Planning, 17(2), 46-63.

Plagnol, A. C. (2011). Financial satisfaction over the life course: The influence of assets and liabilities. Journal of Economic Psychology, 32(1), 45-64. http://dx.doi.org/10.1016/j.joep.2010.10.006

Prawitz, A. D., & Cohart, J. (2014). Workplace Financial Education Facilitates Improvement in Personal Financial Behaviors. Journal of Financial Counseling and Planning, 25(1), 5-26.

Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006a). The incharge financial distress/financial well-being scale: Establishing validity and reliability. Proceedings of the 2006 Association for Financial Counseling and Planning Education, San Antonio, 77-89.

Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006b). InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. Journal of Financial Counseling and Planning, 17(1), 34-50.

Rook, D. W., & Gardner, M. P. (1993). In the mood: impulse buying's affective antecedents. Research in Consumer Behavior, 6(7), 1-28.

Shahrabani, S. (2012). The effect of financial literacy and emotions on intent to control personal budget: A study among Israeli college students. International Journal of Economics and Finance, 4(9), p156. http://dx.doi.org/10.5539/ijef.v4n9p156

Steen, A., & MacKenzie, D. (2013). Financial Stress, Financial Literacy, Counselling and the Risk of Homelessness. Australasian Accounting, Business and Finance Journal, 7(3), 31-48. http://dx.doi.org/10.14453/aabfj.v7i3.3

Taft, M. K., Hosein, Z. Z., & Mehrizi, S. M. T. (2013). The relation between financial literacy, financial wellbeing and financial concerns. International Journal of Business and Management, 8(11), p63. http://dx.doi.org/10.5539/ijbm.v8n11p63

Vosloo, W., Fouché, J., & Barnard, J. (2014). The Relationship Between Financial Efficacy, Satisfaction With Remuneration And Personal Financial Well-Being. International Business & Economics Research Journal, 13(6), 1455-1470.

Yates, D., & Ward, C. (2012). Are Your Personal Financial Characteristics Healthy? Journal of Business & Economics Research, 10(4), 225-232.

Amir Shusha is an Associate Professor of Finance at Faculty of Commerce at Damietta University, in Egypt. He received his Ph.D. in business management from the Mansoura University. His current research focuses on personal finance and behavioural finance. He is member of the International Council of Accredited Trainers from 2010. He received his master's degree in business management from Mansoura University, in 2005. He received bachelor's degree in English literature from Cairo University, in 2009; bachelor's degree in management, in 1998; and bachelor's degree in accounting from Mansoura University, in 1994.