

A Study On Financial Self-Efficacy During Covid-19

Sitangshu Khatua* & Debdulal Dutta Roy**

(*Associate Professor, St. Xavier's University, Kolkata, email: sitangshu.khatua@sxuk.edu.in

** Associate Professor, ISI, Kolkata, email: dduttaroy@gmail.com)

Abstract

Financial Self-efficacy is defined as a person's observed capability to control his/her personal finances (Lapp, 2010; Postmus, 2011). It refers to one's beliefs in the abilities to accomplish a financial goal or task. It is the "knowledge and ability to influence and control one's financial matters" by Fox and Bartholomae (2008). Financial efficacy pattern of people during very critical moment is unknown. The world is experiencing one of the deepest recessions since the Great Depression in the 1930s owing to the novel coronavirus, World Bank President David Malpass has said, terming the COVID-19 pandemic a "catastrophic event" for many developing and the poorest countries. Aim of the study is to examine financial efficacy pattern of people during lockdown period for COVID-19. Data were collected through online mode using financial efficacy scale developed by authors for the study. Results of principal component analysis revealed that during lockdown, financial efficacy is more concerned with financial planning, planned payment and financial coping.

Keywords: Financial Self-Efficacy, Financial Literacy, Personal Finance

JEL Classification: D03, D14

Introduction

Financial Self-efficacy is defined as a person's observed capability to control his/her personal finances (Lapp, 2010; Postmus, 2011). It refers to one's beliefs in the abilities to accomplish a financial goal or task. It has been defined as defined as "knowledge and ability to influence and control one's financial matters" by Fox and Bartholomae (2008). But conceptually it is fine, but there is a problem to realize its implication and true meaning in reality. There are massive financial literacy education and few empirical evaluations to examine their impacts. One main reason for lack of empirical evaluation could be the lack of standardized measurement. In present research paper, financial efficacy is measured as a person's satisfaction in his/her level of financial knowledge and ability to make financial decisions. Governments in many countries implements national financial literacy program to enhance the knowledge of finance of their people. Chiefly, these policies were not so successful to improve financial self- efficacy of the citizens (Asian Development Bank, 2013; OECD, 2012 & 2013a). In many instances, sub-groups of the population who are more vulnerable to financial disadvantage, such as women, have been afforded particular policy attention (OECD, 2013b). Even effectiveness of this type of programs are not assessed properly (Fox & Bartholomae, 2008) and indicators of financial stress and financial anxiety is still there (Dowling, et. all. 2009). Hence it can be said that there are some lacuna in these policy programs. Our present study is trying to overcome this gap. It also

considers the other attributes which are also contributing in making financial self- efficacy of a person.

Literature Review

There has been a solid thrust towards successful financial literacy of people, with an idea that people with more financial knowledge will be able to steer the complex financial systems more efficiently. Researchers, however, have been incapable to identify actual methodologies for enhancing financial literacy and there is a lack of proof that people with more financial knowledge make superior decisions (Willis, 2008). What has been concluded from the research is that the better consumer financial decision making stems from financial self-efficacy (Remund, 2010). Confirming this link between knowledge and self-efficacy, Heckman and Grable (2011) found that college students' financial knowledge was positively associated with financial self-efficacy.

It is already established that financial education can benefit financial well-being. There is an inverse relation between financial literacy and stress (Calamato, 2010; Steen & MacKenzie, 2013) and positive relation with financial well-being (Garman et al., 1999; Holland, et al., 2008, Kumaran, 2013). Furthermore, it has also shown that a person's financial literacy enhances his/her financial efficacy (Fox & Bartholomae, 2008; Lapp, 2010; Postmus, 2011). Postmus (2011) found that financial efficacy is equally significant for controlling personal finance along with financial literacy.

Literature proved that there is a significant relationship between financial development, financial inclusion and inclusive economic growth (Xu & Zia., 2012). Therefore, a large number of developing economies are continuously trying to increase the use of financial services amongst the people of their countries. But these attempts are not successful (Demirguc-Kunt et al., 2015). There are hindrances on both supply and demand side (Beck & De La Torre, 2007).

Engelberg (2007) found that respondents with a high sense of self-efficacy were less likely to perceive themselves being at risk for disrupted income, unforeseen expenses, and unsuccessful investments, as compared to those with low self-efficacy. Lacking a sense of economic self-efficacy has been associated with feelings of stress, negative emotion, and in more extreme cases, depression (Ennis et al., 2000).

Our study uses the Financial Self-Efficacy Scale (FSES) established and endorsed by Lown (2011). This scale was adopted from the generalized scale of self-efficacy established by Schwarzer and Jerusalem (1995). It is in the same line with the ideologies for constructing self-efficacy scales recommended by Bandura (2006a). Most previous studies in the field of personal finance have simply focused on validating the internal consistency of the financial self-efficacy

scale or examining measures of correlation between the scale and personal characteristics or other psychological or behavioral outcomes of interest (Amatucci & Crawley, 2011; Gutter et al., 2009; Sizoo et al., 2008). From another viewpoint, other research works have observed at the extent to which an individual's financial planning is affected by their self-confidence – a somewhat comparable yet still separate concept from financial self-efficacy (Neymotin, 2010).

Self-efficacy is predominantly significant in the perspective of financial decisions and help-seeking because it impacts individuals' behavioral variations (Bandura, 2006). Individuals with high levels of self-efficacy have been shown to be more successful than those with low self-efficacy in handling with hardship (Folkman, 1984). Findings from a study by Engleberg (2007) exposed associations between economic self-efficacy and the notion of following to saving strategies and better self-discipline of sentiments. Lapp (2010) established higher financial self-efficacy was related with lower liability, less financial difficulties, lesser financial hassle, greater reserves and better financial pleasure. In studies investigative self-efficacy, risk acceptance, age, and education have been established to be directly correlated with self-efficacy (Lown, 2011).

Some researchers have indirectly studied the relationship between financial efficacy and financial wellbeing. Xiao, et al., (2010) divided perceived behavioral control into financial efficacy and controllability. Perceived behavioral control including financial behavior was found to have a direct relationship with decent financial actions (Xiao et al., 2011). Good financial performance, in turn, was found to have positive relationships with financial satisfaction (Staten & Johnson, 2010) and a repugnance to liability (Shim et al., 2009). Liability was one of the objective indicators used by Xiao et al. (2011) in order to determine the level of financial well-being. Thus financial efficacy was directly related to financial satisfaction and financial well-being. Perceived behavioral control was also found to have a positive relationship with financial satisfaction (Shim et al., 2009; Xiao et al., 2011). Some researchers found financial satisfaction as a yardstick of financial well-being (Joo, 1998; Wilhelm et al., 1993). Xiao et al. (2011) used ability to cope with financial strain as a measure of financial well-being.

Lown (2011) created a financial self-efficacy measure after recognizing both the importance of self-efficacy in financial decisions, and also the lack of a concrete measure. Lown's work began with a 10-item General Self-Efficacy Scale (GSES) developed by Schwarzer and Jerusalem (1995) and validated in 30 countries. The GSES is a general measure that does not assess specific behavior; therefore, Lown incorporated measures of financial behaviors to focus the measure specifically on financial self-efficacy. Lown's Financial Self-Efficacy Scale is also used for the present study in the context of Indian demography in present time.

Research Objective: The objectives of the present study is to examine financial efficacy pattern by constructing one reliable scale.

Method

Participants: 119 males and 53 females (N=172) participated into this study. Majority participants were in service (48%), professionals (18%) and students (17%). 72% of the total participants reported that their income was below 10 lakhs. 28% reported that they had professional experience in finance. In education, 71% participants were post graduates. The maximum number of participants (91%) was between the age group of 20 to 50 years.

Tools:

1. Information schedule: One schedule was constructed to get few demographic variables - gender, age, education, profession, income, having finance related knowledge or not.
2. Financial self-efficacy: To assess financial self-efficacy one 20-item Likert type summated rating scale with 5 point rating categories ranged from strongly agree to strongly disagree. After measuring internal consistency amongst the items, we omit 3 items. They are Item no. 18,19 and 20. Reliability of the total scale in terms of internal consistency (Cronbach's $\alpha = 0.91$) was very high indicating participants found adequate meaning of the questionnaire and the items are measuring same construct. .

Results

Descriptive Statistics: Table 1 shows that the participants were efficacious in paying the bills on time ($M=4.40$, $S.D.=0.83$), in paying off debt ($M=4.20$, $S.D.=0.87$), in reducing credit by making good spending decisions ($M=4.10$, $S.D.=0.92$). Participants expressed their inability to complete income tax form ($M=3.5$, $S.D.=1.20$) and handling unexpected financial problems ($M=3.6$, $S.D.=0.84$)

Please insert Table 1 about here

Principal Component Analysis: Since the item's are correlated with each other principal component analysis with Varimax rotation was completed (Table 2). Three factors were extracted namely Financial Planning, Planned Payment and Financial Coping.

- a. Financial Planning includes 10 items with high factor loadings on figuring out monthly savings (0.78), regular maintenance of savings accounts (0.77) and keeping aside money for future (0.72).
- b. Planned Payment includes 4 items with high factor loadings on credit reduction (0.78) and achieving financial goal (0.63).

- c. Financial Coping includes 3 items with high factor loadings on avoiding factor fraud (0.75) and arranging health insurance (0.71).

Please insert Table 2 about here

Factor Scores: Factor score was calculated by multiplying factor loadings with the original score. In this way, factor scores for each item were calculated and finally were averaged. Table 3 shows that participants expressed high efficacy in financial planning ($M=2.56$, $SD=0.60$) more than planned payment ($M=2.25$, $SD=0.64$) and financial coping ($M=2.21$, $SD=0.07$).

Please insert Table 3 about here

Discussion

Results reveal three things – (a) areas in which respondents experienced high and low self efficacy; (b) multidimensional structure of the construct and (c) reliable instrument for financial counseling and guidance. The current results must be interpreted with the framework of lockdown period due to Covid-19.

High and low areas: It is noted that high financial self efficacy was related to paying the bills in time, paying off debt and credit reduction by making good spending decisions. It is also seen that low financial self efficacy was related to their inability to complete income tax form and handling unexpected financial problems.

Multidimensionality: Financial self-efficacy is not one-dimensional in nature. Results of Principal component analysis with Varimax rotation reveal that it is composed of three dimensions namely financial planning, planned payment and financial coping. Since the data were collected during the pandemic situation financially efficacious people made major importance on financial planning. This finding is related to the Social Cognitive Model of Self Efficacy proposed by Bandura (). Bandura in defining self-efficacy stressed on goal setting and self regulation. Financial planning involves both.

Counseling and Guidance: There is a dearth of study in an individual counseling with respect to financial planning. This may be due to unavailability of instruments measuring financial self efficacy. Current study provides one highly reliable instrument to assess multiple dimensions of financial self efficacy.

No study is free from any limitations. During the pandemic situation, data collection from the large number of people with specific sampling plan was not possible. This is one of the

limitations of this study. For the same reason, correlation between financial self efficacy and the demographic variables couldn't be computed.

To sum up, present study explored multidimensional structure of financial self efficacy and provided one reliable and internally valid tool for assessment of individual level financial self efficacy.

Table 1: Descriptive statistics and item-total correlation (N=172)

	Statements	Item-total Correlation	Mean	SD
I1	I can keep track of my spending to see where I need to make changes.	0.60	4.00	0.89
I2	I can pay my bills on time.	0.48	4.40	0.83
I3	I can develop a plan to pay off my debt as early as possible.	0.60	4.20	0.87
I4	I can reduce my use of credit by making good spending decisions.	0.53	4.10	0.92
I5	I can find resources to help me solve a difficult financial problem.	0.62	3.80	0.96
I6	I can recognize and avoid a financial fraud.	0.45	3.90	0.95
I7	I can set financial goals for my future wellbeing	0.75	3.90	0.92
I8	I can develop a plan to achieve my financial goals.	0.79	3.80	0.86
I9	I can stick to my financial plan.	0.68	3.60	0.92
I10	I can achieve my financial goals if I try hard enough.	0.60	4.10	0.78
I11	I can put aside some money for future unexpected expenses.	0.74	4.00	1.01
I12	I can put money into a savings account regularly for future goals.	0.45	3.80	1.10
I13	I can save for retirement.	0.69	3.90	1.01
I14	I can figure out how much money I can save per month.	0.64	3.90	0.94
I15	I can invest my savings appropriately to achieve my financial goals.	0.73	3.70	0.86
I16	I can be prepared to handle unexpected financial problems.	0.70	3.60	0.84
I17	I can arrange for health insurance coverage I need.	0.63	3.90	0.98
I18	I can complete my income tax forms by myself.	0.43	3.50	1.20
I19	I can find resources to help me with completing my tax forms if I need it.	0.49	3.90	0.94
I20	I can get my Earned Income Tax Credit (EITC) if I am eligible.	0.47	3.70	0.93

Table 2 : Distribution of factor loadings of financial self-efficacy (N=172)

Item description with serial no	Financial planning	Planned payment	Financial coping
I1 Tracking of my spending	0.53		
I7 Setting financial goal	0.60		
I8 Developing plan	0.58		
I9 Sticking financial plan	0.59		
I11 Keeping aside money for future	0.73		
I12 Regular maintenance of Savings account	0.77		
I13 Save for retirement	0.64		
I14 Figuring out monthly saving	0.78		
I15 Investing savings	0.72		
I16 Handling unexpected financial problems	0.60		
I2 Paying my bills in time		0.56	
I3 Paying off my debt		0.58	
I4 Credit reduction		0.78	
I10 Achieving financial goal		0.63	
I5 Solving financial problem			0.56
I6 Avoiding financial fraud			0.75
I17 Arranging health insurance			0.71
Eigen value	7.62	1.65	1.38
Cronbach's alpha	0.91	0.78	0.70

Note: Factor loadings less than 0.30 were omitted.

Table 3. Factor score wise mean and standard deviation (N=172).

Variables	Mean	SD
Financial planning	2.56	0.60
Planned payment	2.25	0.64
Financial coping	2.21	0.07

References

Amatucci, F.M. & Crawley, D.C. (2011). Financial self-efficacy among women entrepreneurs. *International Journal of gender & Entrepreneurship* , 3(1), 98-122.

Asian Development Bank (2013). Keynote speech at the ASEAN financial literacy conference, delivered by ADB Vice-President S.P. Groff, at Bandar Seri Begawan, Brunei Darussalam, 10 September.

Bandura, A. (2006a). Guide for constructing self-efficacy scales. In F. Pajares & T. C. Urdan (Eds.), *Self-efficacy beliefs of adolescents*. Greenwich, CT: Information Age Publishing, 307-337.

Bandura, A. (2006b). Toward a psychology of human agency. *Perspectives on Psychological Science*, 1(2), 164–180.

Beck, T., & De La Torre, A. (2007). The basic analytics of access to financial services. *Financial Markets, Institutions and Instruments*, 16(2), 79–117. <https://doi.org/10.1111/j.1468-0416.2007.00120.x>

Calamato, M.P. (2010). Learning financial literacy in the family (Master's thesis). Retrieved from http://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=4846&context=etd_theses.

Demirgüç-Kunt, A., Klapper, L., & Singer, D. (2013). Financial inclusion and legal discrimination against women: Evidence from developing countries. World Bank Policy Research Working Paper. <https://doi.org/10.1596/1813-9450-6416>

Dowling, N. A., Corney, T., & Hoiles, L. (2009). Financial management practices and money attitudes as determinants of financial problems and dissatisfaction in young male Australian workers. *Journal of Financial Counseling and Planning*, 20(2), 5–13.

Engelberg, E. (2007). The perception of self-efficacy in coping with economic risks among young adults: An application of psychological theory and research. *International Journal of Consumer Studies*, 31, 95–101.

- Ennis, N.E., Hobfoll, S.E. & Schroeder, K.E.E. (2000). Money doesn't talk, it swears: how economic stress and resistance resources impact inner-city women's depressive mood. *American Journal of Community Psychology*, 28, 149-173.
- Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology*, 46(4), 839-852.
- Fox, J.F., Bartholomae, S.(2008) Financial Education and Program Evaluation. *Handbook of Consumer Finance Research*, New York: Springer, 47-68.
- Garman, E.T., Kim, J., Kratzer, C.Y., Brunson, B.H., & Joo, S. (1999). Workplace financial education improves personal financial wellness. *Financial Counseling and Planning*, 10(1), 79-88.
- Gutter, M., Copur, Z., & Garrison, S. (2009). Which students are more likely to experience financial socialization opportunities? Exploring the relationship between financial behaviors and financial well-being of college students, Working Paper No. 2009-WP-07, Networks Financial Institute, Indiana State University.
- Heckman, S. J., & Grable, J. E. (2011). Testing the role of parental debt attitudes, student income, dependency status, and financial knowledge have in shaping financial self-efficacy among college students. *College Student Journal*, 45(1), 51-64.
- Holland, J.H., Goodman, D., & Stich, B. (2008). Defined contribution plans emerging in the public sector - The manifestation of defined contribution and the effects of workplace financial literacy education. *Review of Public Personnel Administration*, 28(4), 367-384.
- Joo, S. (1998). Personal financial wellness and worker job productivity (Doctoral thesis). Retrieved from http://scholar.lib.vt.edu/theses/available/etd-4198-155242/unrestricted/FRONTM_1.PDF 38. Joo, S., & Garman, E.T. (1998).
- Lapp, L.K., (2010) Management of post-traumatic stress disorder after childbirth: a review, *Journal of Psychometric Obstetrics & Gynecology*, 31(3), 58-79.
- Lown, J. M. (2011). Development and validation of a financial self-efficacy scale. *Journal of Financial Counseling and Planning*, 22(2), 54-63.
- Neymotin, F. (2010). Linking self-esteem with the tendency to engage in financial planning. *Journal of Economic Psychology*, 31(2010), 996-1007.

Postmus, J.L., Sara-Beth Plummer, Sarah McMahon, N. Shaanta Murshid, Mi Sung Kim (2011) Understanding Economic Abuse in the Lives of Survivors, *Journal of Interpersonal Violence*, 27 (3), 47-69.

OECD (Organisation for Economic Development and Cooperation) (2012). OECD Publishing.

OECD (Organisation for Economic Development and Cooperation). (2013b). PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, and Problem Solving and Financial Literacy. OECD Publishing

OECD/ INFE(2013a) High-Level Principles on National Strategies for Financial Education. OECD Publishing.

Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs*, 44(2), 276-295

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio – Causal and control beliefs*. UK: NFER-NELSON. 35-37.

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self Efficacy Scale, *Measures in health psychology: A user's portfolio. Causal and control beliefs*, 1(1), 35-37.

Shim, S., Xiao, J.J., Barber, B.L., & Lyons, A.C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, 30(6), 708-723.

Sizoo, S., Jozkowskia, R., Malhotra, N., & Shapero, M. (2008). The effects of anxiety and self-efficacy on finance students. *Journal of Instructional Psychology*, 35(4), 347–356.

Staten, M.E., & Johnson, C. (2010). Do inter-temporal preferences trump financial education courses in driving borrowing and payment behavior? Retrieved from http://tcainstitute.org/working_papers/Johnson&Staten_Inter-temporal_Preferences.pdf

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. 73. Strumpel, B., (Ed.). (1976). *Economic means for human needs: Social indicators of well-being a*

Wilhelm, M.S., Varcoe, K., & Fridrich, A.H. (1993). Financial satisfaction and assessment of financial progress: Importance of money attitudes. *Financial Counseling and Planning*, 4, 181-199.

Willis, L. E. (2008). Against financial-literacy education. *Iowa Law Review*, 94, 197-285.

Xiao, J. J., Collins, M., Ford, M., Keller, P., Kim, J., & Robles, B. (2010). A review of financial behavior research: Implications for financial education. *The quarter century Project: 25 years of research in financial education*.

Xiao, J.J., Tang, C., Serido, J., & Shim, S. (2011). Antecedents and consequences of risky credit behavior among college students: Application and extension of the theory of planned behavior. *Journal of Public Policy and Marketing*, 30(2), 239-245.

Xu, L., & Zia, B. (2012). Financial literacy around the world: An overview of the evidence with practical suggestions for the way forward. *Policy Research Working Paper*. <https://doi.org/10.1596/1813-9450-6107>.