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Financial Literacy: Conceptual Framework and Scale Development

Leena B. Dam[1]* and Malti Hotwani[2]

[1]Associate Professor, Global Business School and Research Centre, Dr. D. Y. Patil Vidyapeeth, Pune – 411 033, Maharashtra, India; leenadam@gmail.com
[2]Research Scholar, Global Business School and Research Centre, Dr. D. Y. Patil Vidyapeeth, Pune – 411 033, Maharashtra, India; machijwani@yahoo.com

Abstract

Financial literacy is an ability to read numbers and understand financial statement which allows individual to identity the strength and weakness of investment. It is majorly used in connection with personal finance matters and often entails the knowledge of accurate decisions pertaining to matters related to personal finance. After extensive literature review it was found that there exists a need for developing a scale on financial literacy including various dimensions of financial planning, financial products, awareness and internalising the need for financial planning. The objective aim of this paper is to conceptualize, purify, refine and develop the multi-item scale of Financial Literacy. The study attempts to develop a scale by following a four-stage approach: defining the construct, item generation and refining, data collection and purification through exploratory factor analysis. The scale was tested and found to be highly reliable with five factors of financial literacy, viz. investment planning, financial planning, retirement planning, mutual funds and risk and return with 25 variables in total.

Keywords: Diversification, Financial Knowledge, Financial Literacy, Individual Investor, Scale Development
JEL Classification: JEL: G

1. Introduction

In pursuit of constant innovation financial markets have opened up a surfeit of products and investors are spoilt for choice. Excited at the dream to amass significant wealth has propelled investors to participate in the market with vigour and enthusiasm.

However, number of products is complex and difficult to clutch, especially for financially primitive individuals. Therefore, financial knowledge is crucially important to differentiate between the broad range of providers, products and services as means to achieve financial freedom.

The per capita Net National Income (NNI) of India at during 2015-16 was 93,293 INR as compared to 86,879 INR for the year 2014-15, showing a rise of 7.6 percent.[11] Also, with the opening of economy since 1990's, market liberalization and rapid changes in financial markets there has been shift in decision power from government and employer to individuals. Thus, individual have to more accountable for their own financial security.

Are individuals capable enough to make financial decisions? Do they possess adequate financial skills? There has been little research on this topic and the few existing studies indicate that financial illiteracy is widespread and individuals lack knowledge of even the most basic economic principles (Lusardi and Mitchell (2006, 2007a), (NCEE, 2005) and Hilgert, et al (2003). At the same time, the concerns are that large number of investor claim to know much more about finance than they actually know. Also risk adverse investors like older household, low income and low education people are less financially literate Guiso and Jappelli (2008).

*Author for correspondence

2. Concept of Financial Literacy

Financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decision and ultimately achieve individual financing wellbeing (OECD). Financial literacy consists of ability to use knowledge and skill to manage financial resources effective for lifetime (Pailella, 2016).

Financial literacy is a conceptual model consisting of various attributes like saving, borrowings, effect of inflation, importance of compounding effect, financial objective, financial planning, retirement planning, different investment products and its risk and return associated with the same.

With ever increasing focus on better lifestyle and financially independent in the era of privatization, it is extremely difficult for an individual to manage on savings after retirement with ever increasing cost of living and instability at work. Therefore, it is exceptionally important to get started with financial planning and get the money to work at the earliest.

Interpreting and reading the contents of these financial products, viz. Fixed Deposit, Medical Insurance, Annuity products, Company shares, mutual funds is limited to people having finance background. Can people decide which product suits their risk appetite? SEBI now mandates colour coding for the Mutual Fund Schemes is a breather for investors, as it gives some relief to individuals to interpret the suitability of financial instrument for own selves.

There are 42 Mutual Fund houses and a shockingly 11848 schemes are available, out of which around 100 are ELSS and others Non ELSS scheme[2].

It requires meticulousness study and intellectual capacity to judge which schemes would be best to invest. As the GOI allows a deduction of Rs. 1,50,000 u/s 80 C of the Income Tax Act, 1961 whereby people are forced to invest in the products listed under ELSS to reduce their income tax liability. Where and how much to invest to get the desired deduction? Therefore, it is getting difficult to decide the appropriate product that would fulfill the requirement of individual's investment plan. Are individuals capable enough to draw and meet their own financial goals? Is education system brawny enough to make a person proficient to draw one's own financial plan?

3. Literature Review

Financial literacy and its importance have been widely studied across various demographics especially in developed economies. Research is focused on basic financial literacy; there exist the paucity of focus on measuring overall all financial literacy i.e. basic as well as advanced financial literacy concept using the measurement of scale.

Bharat Singh Thapa (2015) study focus on impact of demographic, educational and personality characteristics on financial literacy. Results show that most of the students have basic level of financial knowledge particularly highest in numeracy while it was medium in banking, inflation and share markets, and low in credit, taxes, financial statement and insurance. Campbell (2006) in household finance highlights several financial mistakes that individual make are low levels of stock market participation, inadequate diversification due to households' apparent preferences to invest in local firms and employer stock, individuals' tendencies to sell assets that have appreciated while holding on to assets whose value has declined even if future return prospects are the same, and failing to refinance fixed rate mortgages in a period of declining interest rates. Other financial mistakes discussed in the literature include purchasing whole life insurance rather than a cheaper combination of term life insurance in conjunction with a savings account (Anagol et al 2012); Colleen Tokar Asaad (2015) findings were that over confident individuals but with low actual knowledge are prone to take more risky financial decisions. 'Financial planning' is a taboo topic left to be debated, discussed and is solely decided by the male individuals of the family (Dam and Hotwani, 2017). Wagner (2015) points out that financial education affects short term financial behaviour for people with low education and income, i.e. people who need more formal instructions to learn basic short term behaviours. Students' level of financial literacy is not significantly related to parental involvement i.e. parental involvement did not affect children's levels of financial literacy which leads to question of whether parents are the best source for children to gain financial knowledge (Calamato 2010). Majority of the individuals display reasonable level of general personal financial knowledge (Wagland and Taylor 2009).

Tamimi, et al. (2009) examined the impact of financial literacy on financial decisions. Their results showed that people who invest in the areas of banking and stock have higher level of financial literacy. Boon, et al. (2011) in their study have adapted questions from work of Lusardi and Mitchell (2007) touched upon the function of stock market, knowledge of mutual funds, relationship between interest rates and bond prices, risk diversifications, risk levels, long-term return, fluctuation in asset. Even though individuals see the significance of setting financial goals and objectives in life, there is a knowledge gap at an individual's level that hinders one from effectively managing the financial affairs. Individual investor's financial planning decision is based on advice taken from friends and family rather than taking advice from financial adviser. Individuals are unaware of the process of reviewing their portfolio and switching their investments in case of poor performance (Dam and Hotwani, 2017). The detailed gap analysis based on extensive literature review is shown in Table 1.

4. Development of a Financial Literacy Scale

After reviewing previous studies on scale development, the following scale development process as shown in Figure 1 was adopted. Stages are modified with respect to study, while maintaining the relevant flow of the process.

Table 1: Gap analysis based on review of literature

Sr. No.	Authors			Basic Financial literacy variables				Advanced financial literacy variables				
		Compound Interest Rate	**Inflation**	**Risk**	**Fixed Deposit**	**Tax Filing**	**Time value of Money**	**Stocks**	**Mutual Funds**	**Diversification**	**Superannuation**	**Insurance**
1	Tan Hui Boon, Hoe Siew Yee and Hung Woan Ting (2011)		*	*		*	*	*	*	*		*
2	Jamie Frances Wagner (2015)	*	*					*				
3	Annamaria Lusardi and Olivia S. Mitchell (2008)	*	*	*						*		
4	Prof. Sobhesh Kumar Agarwalla, et al (2012)	*	*	*			*			*		
5	Prof. Sobhesh Kumar Agarwalla (2008)	*	*							*		
6	Jamie Wagner (2015)	*	*					*				
7	Sumit Agarwal, et al.	*	*							*		
8	Maarten van Rooij, Annamaria Lusardi and Rob Alessie (2011)	*	*	*				*	*	*		
9	Caratelli, Massimo and Ricci, Ornella (2012)		*	*						*	*	
10	Bart Frijns and Aaron Gilbert (2014)	*		*			*			*		
11	Colleen Tokar Asaad (2015)	*	*	*								
12	Suzanne P. Wagland and Sharon Taylor (2009)					*		*	*	*	*	
13	John L. Murphy (2013)	*	*					*				
14	Bharat Singh Thapa and Surendra Raj Nepal (2015)	*	*			*	*	*				*
15	Lusardi and Mitchell, 2011)	*	*					*				
16	Lisa Xu and Bilal Zia (2012)	*	*	*				*				
17	Ramasawmy, D., Thapermall, S., Dowlut, S. A., and M. Ramen. (2008)	*	*					*	*	*		
18	Leora Klapper and Georgios A. Panos (2011)	*	*	*						*		
19	Daniel Fernandes, John G. Lynch, Jr and Richard G. Netemeyer (2014)	*	*	*				*	*	*		
20	Yasser Alhenawi and Khaled Elkhal (2014)	*	*	*	*			*				
21	Hussein A. Hassan Al-Tamimi and Al Anood Bin Kalli (2009)	*						*	*	*		

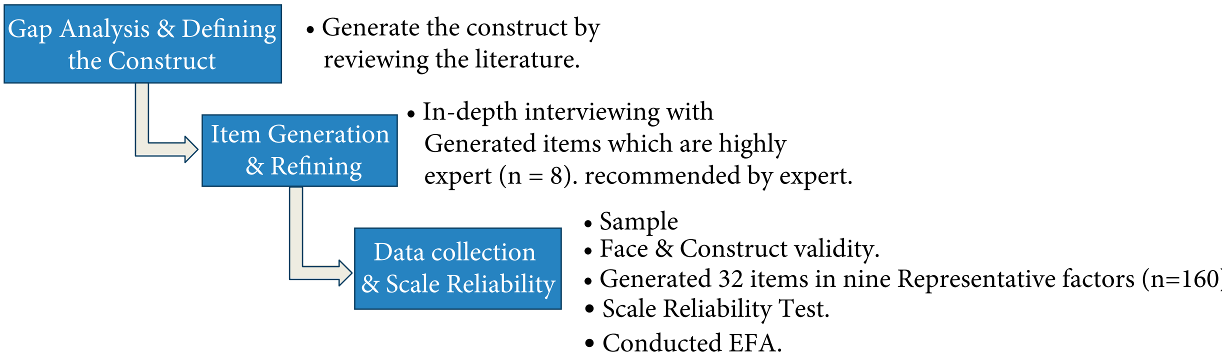

Figure 1. Financial Literacy Scale Development Process.

4.1 Phase 1: Defining the Construct

Due consideration is given to a framework and developing scales for accessing financial literacy factors. After extensive literature review, nine factors i.e. Inflation, Risk, Tax Filing, Superannuation, bank deposit, diversification, insurance, Mutual fund and Stock Market and their dimensions were identified. On the basis of classification, initial sets of items were extracted. Eight experts (2 academicians, 4 investment advisors and 2 chartered accountants) were consulted seeking advice on initial sets of items and asked to point out key items which they felt should be included in Financial Literacy scale. A set of 32 dimensions of financial literacy were identified by them as mentioned in Table 2. Some items were renamed and some were removed from the list.

4.2 Phase 2: Item Generation and Refining

In initial stages financial literacy scale included 8-10 individual factors. A set consisting 38 items based on the literature reviewed were provided to experts identified in

Table 2. Financial literacy questions

	Basic Financial Literacy Questions
A	**Inflation**
1	High inflation means that cost of living is increasing rapidly.
2	Assume interest on saving account is 1% and inflation is 2%. After one year if you save money in saving account you will be able to buy more than today.
3	Earnings from interest on Fixed Deposits always beat inflation.
B	**Time Value of Money**
4	If you inherit Rs. 10,000 today and your sibling inherits Rs. 10,000 3 years from now, you are richer because of the inheritance.
5	Compounding technique is considered to be the 8th wonder of the world
6	Banks/Financial Institutions use the concept of discounting to calculate loan EMIs.
C	**Tax filing**
7	You file your income tax return every year.
8	Income tax may be charged on the interest you earn on your saving account, if your income is high enough.
9	You get refund on excess income tax paid only if you file the return.
D	**Risk**
10	An investment with high return is likely to have higher than average risk.
11	To minimise risk, investments need to be spread over several instruments.

12	Investment in stock market is the riskiest of all investments.
E	**Superannuation**
13	Contribution in Superannuation fund is invested in stock market by the employer.
14	Under defined contribution of super annulation the benefits of retirement are guaranteed.
15	The employer has the option to select any superannuation providing insurance company either from government or private sector.
F	**Bank Deposits/account**
16	Bank Fixed Deposits offer guaranteed returns and you can get interest income monthly, quarterly or on cumulative basis.
17	Fixed Deposit is the best type of investment for people between 25-30 years of age.
18	All banks offer similar rate of interest on Fixed Deposits.
	Advanced Financial Literacy Questions
G	**Diversification**
19	It's important to invest in different types of assets to reduce the risk of losing money.
20	It is less likely that you will lose all of your money if you save it in more than one place.
21	It is important to diversify your funds if when you are investing for more than 5 years.
H	**Stock Market and Mutual Funds**
22	Mutual funds pay a guaranteed rate of return which depends on their past performance
23	The stock market gives guaranteed return at all times.
24	Shares are more risky than mutual funds.
25	Mutual fund is a risk free investment.
26	Net Asset Value is an important factor to watch for when investing in stock market.
27	Expense ratio is an important factor to consider for when investing in mutual funds.
I	**Insurance**
28	Annuity is a financial product that pays a lump sum when you die.
29	The cash value of a life insurance policy is the amount available if you surrender your life insurance policy while you are still alive.
30	"Life insurance" policy has a saving feature while "term" insurance does not.
31	ULIP is the best product to choose for in Life Insurance.
32	Investing in Medical Insurance allows you to claim tax exemption.

Phase 1 who were asked to rate them on a 5-point Likert scale ranging from 'not at all important' to 'very important'. Based on the items suggested by the experts in the first stage, 8 dimensions were finally sorted out as key financial literacy factors.

Experts were also asked to suggest on the wordings, clarity, conciseness, readability and response format ensuring content and face validity of the scale.

4.3 Phase 3: Data Collection and Scale Purification

The items retained in the previous process were considered for further framing of instrument scale. On the basis of expert's opinion, 32 statements representing 8 dimensions were sorted out and framed as scale statements seeking response as shown in Table 2. A total of 300 individuals from IT profession, were approached seeking response through a structured questionnaire based on selected items. The individuals were contacted in person as well as through email, social networking and messaging applications for collecting responses for the survey. However, only 160 responses were completed in all aspects and were considered for further analysis. Respondents consisted of both male and female consumers; specifically targeting working professionals in the age group of 21-50 years.

Further, items of financial literacy were analyzed for reliability. The complete set of items had Cronbach's Alpha value of more than 0.80 under purification stage.

Before conducting exploratory factor analysis, KMO measure of adequacy test was conducted to establish the suitability of the data for factor analysis and Barlett's test of sphericity was tested to analyse the overall significance of the correlation matrix. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for financial literacy factors showed a value of 0.798 and Barlett's test of sphericity (approx. Chisquare = 2580.883) were also found at acceptable levels. The outcome of both of these values for all factors suggested going ahead with further investigation. Results of the test are detailed in Table 3.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.798849
Bartlett's Test of Sphericity	Approx. Chi-Square	2580.883
	Df	435
	Sig.	8.99607

Factor analysis with principle component method and varimax rotation was used to validate, reduce and analyze

Table 4. Exploratory Factor Analysis

Exploratory Factor Analysis : Financial Literacy					
Rotated Component Matrix					
	1	2	3	4	5
Diversification_Leads_To_Reduced_RIsk	0.746131				
Importance_of_Divesification_for_long_term	0.657728				
Medical_insurance_eligible_Tax_deduction	0.646457				
High_Return_high_Risk	0.596307				
Risk_Reduced_Diversification	0.736722				
Regular_Tax_Return	0.652909				
IT_Refund_only_thru_IT_Return	0.716133				
FD_Sutaible_For_Young_People		0.753939			
Example_for_inflation		0.50209			
FD_beats_inflation		0.684078			
ULIP_the_Best_in_Insurance		0.645168			
MF_guaranteed_return_depends_Past_Performance		0.506966			
Reduced_Risk_If_Invested_In_One_place			0.619765		
Annuity_Paid_Lumpsum_amount_on_death.			0.581722		
Life_insurance_VS_Term_insurance_saving_feature			0.517098		
Expense_Ratio_indicator_For_MF			0.547505		
Supperannuation_guaranted_Return			0.476221		
IT_on_Saving_Account			0.408974		
All_Banks_FD_Similar_ROR				0.796594	
MF_Are_Risk_Free				0.488502	
MF_guaranteed_return_depends_Past_Performance				0.651135	
FD_guaranted_Return_Periodically					0.748006
Highest_Risk_in_Stock_Market					0.748006
Share_More_Risky_than_MF					0.446631
Superannuation_Funds_invested_Insurance_Private_public_Company					0.588285
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
Rotation converged in 8 iterations.					

the factors. Loadings of financial literacy questions can be seen loaded on 5 factors component namely Awareness about benefits of investment planning, Awareness about basic financial concepts, Awareness about Retirement planning, Mutual Fund and Risk and Return. The loading of all factors ranged from dimensions of .775 to .408 respectively the same can be referred from Table 4.

Loading of items of diversification, risk and benefits of IT returns are loaded on component 1 so it has been renamed as Awareness about benefits of Investment Planning. And the loading of variable from Fixed Deposit, ULIP and Inflation are loaded on component number two so that has been renamed as Awareness about basic financial concepts. Further the loadings of items of Insurance, benefits of diversification, superannuation therefore factor number three has been renamed as Awareness about Retirement planning. Similarly factor number four and five are named as Mutual Fund and Risk and Return respectively.

4.3.1 Investment Planning

According to The Money Advice Service UK, Investment planning is matching individual's investment goals and savings and investments, taking into account time frames, financial situation, risk appetite and tax position.

Like for youngsters, SIPs (Systematic Investment Plans) work perfect as it allows them a regimented way to invest in mutual funds for amounts as low as Rs. 500. One can also go for SEP (Systematic Equity Plan) to accumulate value companies for long term. Also buying real estate in a locality which is developing and then letting out that property on rent could generate regular income.

4.3.2 Basic Financial Concepts

According to President's Advisory Council on Financial Literacy (2008), financial education is a process through which financial knowledge and skills are gained, rather than the knowledge and skills themselves. Hence, financial education should be considered a concept that promotes financial literacy.

4.3.3 Retirement Planning

Starting early for retirement planning have many advantages. If individual does that money gets ample time to grow. Each gain generates further returns. As time passes, individual misses out of the benefit of compounding, which can breed money exponentially over time. Many policy makers are also concerned about the adequacy of savings for retirement. The key to successful retirement planning is going for term insurance instead of expensive ULIP plans and traditional insurance plans. Going for annuity products as one nears retirement and keeping the contribution in superannuation fund as regular as possible.

- **Mutual Fund:** Before investing in mutual fund due consideration should be given to what role does mutual fund investment would play into individual's portfolio. Whether the investment is made for adding more and more value or generating regular income? The answer to these questions will be guidance for which type of fund to consider. It is also important for investor to know that mutual fund investments are not risk free investment and unlike traditional products in market like FD's, NSE MF's also don't provide guaranteed return.

- **Risk and Return:** Every investment is associated with the risk. Investor's personality and lifestyle acts as a guiding note for risk appetite. Due consideration should be given to risk associated with the investment and individuals risk bearing capacity before making any investments.

4.4 Scale Reliability

The reliability of the scale was assessed using Cronbach's Alpha. The Table 5 illustrates that scale so constructed consists of 26 statements relating to 5 items' scale viz. Awareness about benefits of Investment Planning, Awareness about basic financial concepts, Awareness about Retirement planning, Mutual Fund and Risk and Return respectively. The values of alpha for each item range from 0.802 to 0.629.

5. Conclusion

More than 50% of the Indians are not financially literate according to financial literacy around the world: Insights from the Standard and Poor's Ratings Services Global Financial Literacy Survey. Also, Financial literacy rate is high among wealthy, well educated and who use financial services. It is lucid that majority of people are not yet prepared to deal with the constant changes in financial backdrop. Government is pushing to increase financial inclusion by boosting access to bank accounts and other financial services but, unless people have the necessary financial skills, these prospects can easily result to high debt, mortgage defaults or even insolvency. This is appli-

Table 5. Exploratory factor analysis

Reliabililty Stat of the scale		
	Items	**Alpha**
Factor 1		
Awareness about benefits of investment planning	It's important to invest in different types of assets to reduce the risk of losing money.	
	It is important to diversify your funds if when you are investing for more than 5 years.	
	Investing in Medical Insurance allows you to claim tax exemption.	
	An investment with high return is likely to have higher than average risk.	
	To minimise risk, in-vestments need to be spread over several instruments	
	You file your income tax return every year.	
	You get refund on excess income tax paid only if you file the return.	**0.69**
Factor 2		
Awarness about basic financial concepts/products	Fixed Deposit is the best type of investment for people between 25-30 years of age.	
	Assume interest on saving account is 1% and inflation is 2%. After one year if you save money in saving account you will be able to buy more than today.	
	Earnings from interest on Fixed Deposits always beat inflation.	
	ULIP is the best product to choose for in Life Insurance.	
	Mutual funds pay a guaranteed rate of return which depends on their past performance	**0.802**
Factor 3		
Awareness about Retirement planning/products	It is less likely that you will lose all of your money if you save it in more than one place.	
	"Life insurance" policy has a saving feature while "term" insurance does not.	
	Annuity is a financial product that pays a lump sum when you die.	
	Net Asset Value is an important factor to watch for when investing in stock market.	
	Under defined contribution of superannuation the benefits of retirement are guaranteed.	
	Income tax may be charged on the interest you earn on your saving account, if your income is high enoug	**0.715**
Factor 4		
Mutual Fund	All banks offer similar rate of interest on Fixed Deposits.	
	Mutual fund is a risk free investment.	
	Mutual funds pay a guaranteed rate of return which depends on their past performance	**0.629**
Factor5	Bank Fixed Deposits offer guaranteed returns and you can get interest income monthly, quarterly or on cumulative basis.	
Risk & Return	Investment in stock market is the riskiest of all investments.	
	Shares are more risky than mutual funds.	
	The employer has the option to select any superannuation providing insurance company either from government or private sector.	**0.643**

cable to poor, less educated and women - all of whom suffer from low financial literacy and are the main target of government programs to expand financial inclusion. In the era of digitalization, all the information is available on the click; interpretation of bulk information is a big challenge. To choose appropriate financial instrument according to individuals risk appetite one needs to understand the features of the product aptly, for which individual needs to be financial literate. Development of scale on financial literacy aims at checking whether a respondent is financially literate to make sound decisions regarding investment.

The scale developed consist of 26 variables under 5 factors which was done by following four stages defining the constructs, item generation and refining, data collection and purification, final assessment and scale development. Initially, 8 dimensions of financial literacy factors were taken for the analysis which were reduced to 5 namely Awareness about benefits of Investment Planning, Awareness about basic financial concepts, Awareness about Retirement planning, Mutual Fund and Risk and Return. The reliability of the scale was analysed and all items were found to be highly reliable as the values were above 0.80. 6.

6. Recommendation

The financial literacy scale developed under this study has major implications for individuals, academicians and researchers. The scale developed in this study would help individuals to gain an insight of various dimensions of financial decisions to be considered. Nowadays, not only middle class working individuals need to be financially literate in order to take sound financial decisions but also undergraduates, professionals and business persons should also be financial literate in order to have a financial plan in accordance to financial goals. So, this scale on financial literacy can also be used by professionals, business persons and college going students. It will also help academicians in developing the courseware for financial educational programs. Academicians and researchers will be able to conduct several research studies with the help of this scale that are already tested and validated.

7. References

1. Bharat, S. T. & Surendra, R. N. (2015). "Financial Literacy in Nepal: A Survey Analysis from College Students". Nepal Rastra Bank Economic Review.
2. Campbell, J. Y. (2006). Household finance. J. Financ. 61(4), 1553–1604.
3. Colleen, T. A. (2015). "Financial literacy and financial behavior: Assessing knowledge and confidence." *Financial Services Review,* 24, 101–117.
4. Daniel, F., John, G. L. Jr. & Richard, G. N. (2014). *"Financial Literacy, Financial Education and Downstream Financial Behaviors"*. Rotterdam School of Management, Erasmus University, The Netherlands.
5. Hussein, A. H. A. & Al Anood, B. K. (2009). "Financial literacy and investment decisions of UAE investors". *The Journal of Risk Finance*, 10(5), 500–516.
6. Collins, J. M. (2012). "Financial advice – A substitute to financial literacy?" Financial Services Review; *Winter*. 21(4).
7. John, L. M. (2013). "Psychosocial Factors and Financial Literacy." *Social Security Bulletin,* 73(1).
8. Kimberly, A. B. (2009). "Examining the Influence of Financial Literacy Education on Financial Decision-Making among Graduate Level Health Professions Students". Dissertation and theses from Capella University.
9. Leena, B. D. & Malti, H. (2017). "The Relationship between Age and Income with Financial Planning Events". Pratibimba, *The Journal of IMIS, Bhubaneshwar,* 7–16.
10. Monica, P. (2016). "Financial literacy and subjective expectations questions: A validation exercise". *Research in Economics*, 2016, 70(2), 360-374.
11. Lisa, X. & Bilal, Z. (2012). "Financial Literacy around the World." Policy Research Paper 6107. The World Bank, *Retrieved from* http://econ.worldbank.org
12. Lusardi, A. & Mitchell, O. S. (2007). Financial Literacy and Retirement Planning: New Evidence from Rand American Life Panel. Mimeo, Darthmouth College.
13. Lusardi, A. & Mitchell, O. S. (2011*). "Financial Literacy around the world"*. NBER Working Paper No. 17107 June 2011 JEL No. D14, D91, Retrieved from http://www.nber.org/papers/w17107.pdf
14. Malaysia Financial Planning Council, MFPC (2004) RFP Module 1 - Fundamentals of Financial Planning, 3rd ed., MFPC, Kuala Lumpur. Int. Journal of Economics and Management, 5(1): 149–168 (2011).
15. Malti, H. & Leena, B. D. (2017). "Association between Financial Planning and Professional Advice – Do they co-exist?" International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS), 4(2), 118–124.
16. Maria, P. C. (2010). "Learning Financial Literacy in the Family". Discretion and theses from San Jose State University.
17. Ramasawmy, D., Thapermall, S., Dowlut, S. A. & Ramen, M. (2008). "Financial literacy and portfolio diversification". EUI working paper ECO 2008/31.
18. Ramasawmy, D., Thapermall, S., Dowlut, S. A. & Ramen, M. (2013). "A Study of the Level of Awareness of Financial Literacy among Management Undergraduates". Proceedings of 3rd Asia-Pacific Business Research Conference 25-26 February 2013, Kuala Lumpur, Malaysia.
19. Sumit, A., Gene, A., Itzhak, B. D., Souphala, C. & Douglas, D. E. (2015). "Financial Literacy and Financial Planning: Evidence from India". *Journal of Housing Economics,* 27, 4–21. Retrieved from http://isiarticles.com/bundles/Article/pre/pdf/50653.pdf
20. Suzanne, P. W. & Sharon, T. (2009*).* "When it comes to Financial Literacy, Is Gender Really an Issue?" 3(1), 13.
21. Tan, H. B., Hoe, S. Y. & Hung, W. T. (2011). "Financial Literacy and Personal Financial Planning in Klang Valley, Malaysia". *Int. Journal of Economics and Management,* 5(1), 149–168.
22. Yasser, A. & Khaled, E. (2014). "Financial Literacy of U. S. households: Knowledge vs. Long Term financial planning". *Financial Services Review,* 22(3), 211–244.
23. Wagner, J. F. (May 2015). An Analysis of the Effects of Financial Education on Financial Literacy and Financial Behaviors" Discretion and theses from University of Nebraska-Lincoln.
24. Anagol, S., Cole, S. & Sarkar, S. 2012. "Understanding the incentives of commissions motivated agents: theory and evidence from the Indian life insurance market". Harvard Bus. School, Work. Pap. 12-55.