



FINANCIAL LITERACY : MEASUREMENT AND DETERMINANTS

Sanjib Das¹

¹Ph.D. Scholar (JRF), Dept of Commerce, Gauhati University, Guwahati-14, Assam, India

ABSTRACT

Financial literacy is the possession of knowledge and understanding of financial matters. It is also termed as financial education, financial knowledge and economic education. The absence of financial literacy may lead to making poor financial decision that can have adverse effects on the financial health and wellbeing of an individual. Therefore, financial literacy initiatives have been started in many countries throughout the World. This paper provides a review of current researches on financial literacy and attempts to find out gaps. It begins with defining the term 'financial literacy' and outlines the approaches adopted in measuring the level of financial literacy in different studies and finally an analysis is carried out on determinants of financial literacy level among different groups of people.

KEYWORDS: Financial literacy, Literature review, Measurement, Approaches and Determinants.

1.INTRODUCTION

Finance or money plays a pivotal place in the life of a person, irrespective of age, gender, education, income, caste or religion. Money is essential for personal well being as well as well being of the family and society as a whole and hence knowledge and skills of money management is considered to be an important life skill in the modern society which is known as financial literacy. Financial literacy is the possession of knowledge and understanding of financial matters. In short, financial literacy means knowledge and skills of management of personal finance. In broad sense, (PACEL-USA 2008) it refers to the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial wellbeing. And financial education is the process by which people improve their understanding of financial products, services and concepts, so that they are empowered to make informed

choices, avoid pitfall, know where to go for help and take other actions to improve their present and long term financial wellbeing.

The term 'financial literacy' is being defined by different Authorities and Scholars differently from their own standpoints. Some of them are being quoted –

- Financial literacy is the ability to read, analyze, manage, and communicate about the personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect every day financial decisions, including events in the general economy (Vitt et al 2000).



- The ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial wellbeing (PACFL-USA 2008).
- Financial literacy is having the knowledge, skills and confidence to successfully carry out the financial transactions encountered in everyday life (CFAIR 2009).
- A combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual well-being (Atkinson and Messy 2012).
- Combination of financial knowledge, skills, attitudes and behaviors necessary to make sound financial decisions, based on personal circumstances, to improve financial wellbeing (ASIC 2014).

2.LITERATURE REVIEW

The researcher has opted to summarize - key issues, statistics used, dimensions and results of studies done so far by different researchers in the field of financial literacy-

Author(s) / Date	Title	Geographic area	Segment/ Sample	Dimension	Statistical tools	Key issues	Results
Chen H and Volpe P (2002)	Personal financial literacy of students in Colleges	Ohio, U S A	Student/ 924	Financial knowledge	Chronbech's alpha, ANOVA, Chie square test	Financial knowledge, , Financial curriculum	Mean score is 52.80%; Students have an average knowledge on financial matters
Lusardi A and Mitchell OS (2007)	Financial Literacy and Retirement Preparedness	U S A	Workers above age of 50 years	Financial knowledge and behavior	Bar diagrams	Financial knowledge, retirement planning, saving and investment behavior	50% can respond correctly; Financial literacy was low for Blacks and Hispanics, women, and those with low education
Ibrahim D (2009)	Financial literacy of Malaysian degree students	Kedah, Malaysia	Students (Age 18-20 years)/ 200	Financial knowledge and attitude	Chronbech's Alpha, correlation. Chie square test	Levels and determinants of financial literacy	Low level of financial literacy; Respondents having higher financial knowledge bear higher financial attitude
Lusardi A et al (210)	Financial literacy among the young	U S A	Young people/ 7414	Financial knowledge	ANOVA, Correlation, Chie square test	Financial illiteracy, financial decision	Low financial literacy: significant difference prevails in the levels of financial literacy of male and female
Taliaferro D L et al (2011)	A review of Howard University's financial literacy curriculum	U S A	Students (class X)/ NJC survey 1997	Financial knowledge and behavior	Correlation, Regression and t-test	Levels of financial literacy, evaluation of curriculum	Curriculum is associated with levels of financial literacy; Business students are more financially literate (60%)
Taylor M (2011)	Measuring Financial Capability and its Determinants	U S A	B H P survey data (1991-2006)	Financial ability and capacity	Correlation coefficient, Regression and ANOVA	Financial capacity and determinants	Financial capacity is determined by health, financial ability and knowledge
Setty V S (2012)	Financial literacy amongst the college students	Mumbai India	Students (Age 18-23 years), 100	Financial knowledge and behavior	Correlation and ANOVA	Money management skill, financial knowledge	Financial literacy is poor as compared to global standard: Commerce and business graduates score higher
Bahmar Z et al (2012)	Financial literacy, prosperity and its association with demographic variables	Yazd Iran	School teacher/ Yazd county school	Financial knowledge and Wellbeing	Kolmogorov Smirnov, Correlation, Mean, Variance	Financial literacy, demographic variables	60% teachers are financially literate; demographic variables are linked to teacher's financial well being except marital status

Shaari N A (2013)	Financial literacy: A study among the University students	Malaysia	University students/384	Financial knowledge	ANOVA, Multiple regression	Levels and determinants of financial literacy	Moderate financial literacy i.e. 65.7%; Age, Gender, Spending habits and Faculty effect financial literacy
Bhushan P and Medury Y (2013)	Financial literacy and its determinants	Himachal Pradesh India	Salaried individuals/516	Financial knowledge	ANOVA	Financial literacy, key determinants	Low levels of financial literacy i.e. 58.30%; It is closely associated with economic, demographic and geographic factors
Agarwalla S K, et al (2013)	Financial literacy among working young in urban India	Ahmadabad India	Working young people/754	Financial knowledge, behavior	Logistic regression, ANOVA	Financial literacy, socio-economic variables	24% of respondents have high financial knowledge; majority exhibits desirable financial behavior
Taft M K (2013)	Relationship between financial literacy, financial wellbeing and financial concerns	Iran	Professor/103	Financial wellbeing and financial concern	t-test, Pearson's Correlation, Chronbach's Alpha	Financial literacy, concern, wellbeing, demographic variables	Positive relation between financial literacy i.e. higher level of financial literacy is followed by higher financial wellbeing and leads to less financial concern
Aggarwal N et al (2014)	Financial Literacy among Farmers: Empirical Evidence from Punjab	Punjab India	Framers/300	Financial knowledge	Chie square test	Measurement of financial literacy	37% of the farmers have sound financial literacy, 47% have fair financial literacy and 2% have lowers
Thapa B (2015)	Financial literacy in Nepal: A survey Analysis from College students	Kathman du Nepal	University students/436	Financial knowledge	ANOVA, Regression analysis	Measurement of financial literacy and analysis of its variables	Students have basic financial knowledge; demographic and educational factors are significantly associated.

3. OBJECTIVES

The study is carried out to attain the following objectives-

- To review the available literatures on financial literacy and find out gaps;
- To know about the financial literacy measurement approaches; and
- To find out the key determinant factors of financial literacy.

4. METHODOLOGY

The present study is basically descriptive and exploratory in nature and tries to explore concepts and phenomena with regard to financial literacy. Data for the study have been collected from secondary sources only. Various articles, research papers, magazines have been studied and required information also accessed from internet websites.

5. RESULTS AND DISCUSSION

5.1. Gaps in Existing Research:-

On review of literature, it comes to the light that financial literacy is a major concern for both the developed and developing nations in the World. Studies have been carried out throughout the world irrespective of the geographical location and socio-economic status. Most of the studies so far reviewed, have been carried out in India (33.33%) and U S A (23.33%). Target population in the

majority of the studies (90.47%) is college students, teachers, working women, young or adult people, although financial literacy is important for everyone's economic wellbeing. Only two studies (9.53%) have targeted general people (all the segments of people). Again, the studies have focused only on specific aspect of the overall financial literacy and not on all the dimensions i.e. financial knowledge, behavior, attitude, concern and wellbeing. Most of the studies (71%) cover only two dimensions - financial knowledge and behavior. And only 39% of the studies cover financial knowledge, behavior, attitude, concern and wellbeing. The three key issues concerning financial literacy - measurement, levels and determinants are focused in most of the studies. Only two studies have paid concentration on financial literacy curriculum and programmes which are of utmost importance to improve financial literacy among people. All these reveals scope and need for research work in different areas of financial literacy.

5.2. Measurement of Financial Literacy:-

Literacy is basically a qualitative term and so the financial literacy is. Therefore, most of the researchers have developed scales of their own to measure the level of financial literacy among the respondents. These

techniques/approaches are grouped into two - (a) Objective test approach and (b) Self assessment approach.

(a) Objective test approach:-

Objective test approach is seemed to be more widely used by researchers in measuring level of financial literacy of the respondents. Under this technique multiple choice questions are asked to answer in the questionnaire or interview schedule. Score for every respondent is computed on the basis of correct responses provided by them. And finally based on the score the overall financial literacy level is determined. This technique has been used by a number of researchers- Chen H et al (2002), Lusardi A et al (2007), Ibrahim D (2009) and Taft M K et al (2013).

(b) Self assessment approach:-

In the self assessment approach subjective questions on the basic concepts of financial literacy and numeracy are asked to judge financial literacy of the respondents. This approach has not been gained popularity among the researchers, as it is observed that the respondents try to overestimate their financial knowledge and elicit positive financial attitude and behaviour. Under this approach respondents are asked to self assess their financial ability, understanding and skills.

5.3. DETERMINANTS OF FINANCIAL LITERACY

The literature review on financial literacy brings into light some factors or determinants which have significant bearing on financial literacy level of people. The factors that were found significant are-Age, Gender, Education, Profession, Income, Place of residence and Race/Ethnicity. Following is the detailed explanation of these determinants along with some empirical evidences-

Age:-

Most of the studies reveal that age is one of the important determinants of financial literacy. Age is a significant factor in explaining financial literacy of people. Financial capability varies significantly with age in a non-linear way for both men and women and it increases rapidly with age (Taylor M 2011). There is a positive relationship between the age and variables of financial wellbeing and financial literacy (Taft M K 2013). Level of financial literacy positively relates to age, education and income. It is higher for those who are more than 60 years of age as compared to the age group of 20-30 years (Bhushan P et al 2013).

Gender:-

A number of studies give clear evidence that gender significantly affect the level of financial literacy. It is clear from literature review that male is more financially literate as compared to female. Financial illiteracy is wide spread in USA and other countries among Women and

Old age people (Lusardi et al 2007). Women are less financially capable than men between the age group of 20-70 years (Taylor M 2011). Men are more financially literate and well informed compared to women in Hungary. Working women in Pakistan are mostly financially illiterate and only one third of them possesses the knowledge of financial services and products (Ibrahim D 2009).

Education:-

Educational qualification and discipline of study is directly related one's financial literacy level. Students from business/economics and finance honors were found more financially literate as compared to others (Ibrahim D 2009). As far as the schooling variable is concerned, College students with a high school diploma attained in a technical school find it easier to calculate cash inflows and outflows. Financial literacy level of male is higher than that of female; level of financial literacy increases with the increase in educational qualification (Bhushan P et al 2013). There exists an association between the educational qualification and financial literacy i.e. Respondents having higher educational qualification, tend to have higher financial literacy (Aggarwal N et al 2014).

Profession:-

Profession or occupation also has a close link with financial literacy. The lowest financial capacity is found for young adults living with other unrelated adults, in unemployment without an employed spouse (Taylor M 2011). People working in non-govt. jobs are more financially literate as compared to those working in govt. jobs and people those working in urban areas are more financially literate as compared to rural areas (Bhushan P et al 2013). People working in financial sector have significantly higher financial literacy for both men and women. Financial literacy is also significantly affected by the labor market; it is higher having more households in employment and vice-versa and both men and women in full time employment have higher level of financial capacity (Taylor M 2011).

Income:-

Income of an individual is significantly associated with the level of financial literacy. Economically disadvantaged youth, in particular, lack financial knowledge and access to mainstream financial institutions. People of rich family are more financial knowledgeable. And income and ratio of income have a significant correlation with practical knowledge of students. Level of financial literacy positively related to income and earnings, it increases with the increase in income level (Bhushan P et al 2013).

Place of Residence:-

Financial literacy is also closely associated with place of residence. Generally, People living in urban area are more financially literate as compared to people living in rural or semi-urban area. People living in rent house are less financially capable as compared to those having own home and giving mortgage (Taylor M 2011). Place of domicile shows an association with the level of financial literacy i.e. people living in urban area are comparatively more financially literate (Bhushan P 20013).

Race/ Ethnicity:-

Race caste or ethnicity is also considered to be a determinant of financial literacy. Literacy rates are different according to race and ethnicity- white is more literate as compared to black and Hispanic in USA (Lusardi A et al 210).

6. CONCLUSION

Though financial literacy is an important life skill for all the people irrespective of caste, religion, sex, education, wealth and other socio economic variables but still it has not gained much popularity particularly in developing countries where the level of financial literacy is very low or below the average level. Therefore, Government, educational institutions, financial service providers and NGOs in such countries have devised financial literacy training programmes, introduced financial literacy course curriculum in educational institutions and started financial counseling centres to promote the level of financial literacy. In India there is no nationwide structured financial education programme, but significant work is being done by the RBI, CRISIL, RGVN, Banks and NGOs in order to promote the level of financial literacy. It is clear that the educational institutions in our country can play the major role in this respect. They should include financial literacy subjects in their course curriculum suited for their students and arrange seminars and conferences on the topic related to financial literacy. Financial service providers, Government agencies, Policy makers and NGOs should also give due emphasis on financial literacy and not solely on financial inclusion.

REFERENCES

1. Aggarwal N et al (2014), "Financial Literacy among Farmers: Empirical Evidence from Punjab", *Pacific Business Review International*, Vol.6 (7), pp.36-42. Retrieved from: <http://www.pbr.co.in/Vol6Issue7January2014/4.pdf>
2. Atkinson and Messy (2012), "Measuring Financial Literacy", *OECD Working paper no.15* Retrieved from: <http://www.oecd-ilibrary.org/finance-and-investment/measuring-finan>
3. ASIC, *National Financial Literacy Strategy 2014*. P.06. Retrieved from: http://www.financialliteracy.gov.au/media/546585/report-403_national-financial-literacy-strategy-2014-17.pdf
4. Bahmar Z et al (2012), "Investigating the Relationship between Financial literacy and prosperity and the Determining association with demographic variables", *Indian journals of fundamental and applied research*, Vol. 4(S1), pp.1143-11542 Retrieved from: [http://www.cibtech.org/sp.ed/jls/2014/01/00\(133\).pdf](http://www.cibtech.org/sp.ed/jls/2014/01/00(133).pdf)
5. Bhushan P et al (2013), "Financial literacy and its determinants", *International Journals of Engineering Business and Enterprise Application (IJEBEA)*, vol.4 (2), pp.155-160. Retrieved from: <http://www.iasir.net/IJEBApapers/IJEBA13-145.pdf>
6. Canadian Foundation for Advancement of Investor Rights (CFAIR-2009), Retrieved from: <http://faircanada.ca/retail-investors/financial-literacy/financial-literacy-matters>
7. Chen H and Volpe P (2002), "Analysis of personal finance literacy among college students", *Financial services review*, vol. 7(2), pp 107-128. Retrieved from: <http://citeserx.ist.psu.edu/viewdoc/download?doi=10.1.1.392.4650&rep=rep1&type=pdf>
8. Ibrahim D (2009), "A study on financial literacy of Malaysian degree students. Published in: *Cross cultural communication, Cross cultural communication*", Vol. 5(4). Retrieved from: <http://www.cscanada.net/index.php/cce/article/download/j.ccc.1923670020090504.006/772>
9. Lusardi A et al (2007), "Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education", *Palgrave Macmillan Journals (Business Economics)*, Vol. 42(1), pp. 35-44. Retrieved from: <http://www.jstor.org/stable/23490632>
10. Lusardi A et al (2010), "Financial literacy among the young", *The Journal of consumer affairs*, Vol. 44(2), pp. 358-380. Retrieved from: http://www.councilforeconed.org/wp/wpcontent/uploads/2011/11/Financial_Literacy-for-Young-Lusardi.pdf
11. Mathivanan R et al (2013), "Existing gap between the financial literacy and savings and investment behavior among the Indian women: An empirical study with special reference to Coimbatore city", *International Journal of Research in Commerce, Economics & Management*, Vol. 03(04), pp. 20-25. Retrieved from: http://ijrcm.org.in/download.php?name=ijrcm-3-IJRCM-3_vol-3_2013_issue-4_April-art-05.pdf
12. President's Advisory Council on Financial Literacy (PACAL-2008). Retrieved from: http://jumpstart.org/assets/files/PACFL_ANNUAL_REPORT_1-16-09.pdf
13. Sety VS et al (2012), "A study of financial literacy amongst the college students in Mumbai", *Tactful management research journal*, ISSN: 2319-7943, pp. 06-11. Retrieved from: <http://tmgt.lsrj.in/SeminarPdf/148.pdf>

14. Shaari N A (2013), : *A study among the University students*, *International journal of contemporary Research in Business*, Vol. 5, No. 2, pp. 279-198 Retrieved from: <http://journal-archievs33.webs.com/279-299.pdf>
15. Taliaferro D L et al (2011), "A review of Howard University's financial literacy curriculum", *American Journal of Business education*, Vol. 4(10). Retrieved from: <http://cluteinstitute.com/ojs/index.php/AJBE/article/viewFile/6066/6144>
16. Taylor M (2011), "Measuring Financial Capability and its Determinants Using Survey Data", *Social Indicators Research*, Vol. 102(2), pp. 297-314. Retrieved from: <http://www.jstor.org/stable/41476483>
17. Thapa B S (2015), "Financial literacy in Nepal: A survey Analysis from College students", *NRB Economic Review* (26-28 Feb.), pp. 55-69. Retrieved from: http://www.nrb.org.np/ecorev/pdf/files/vol27-1_art4.pdf