

## Impact of Financial Literacy on Attitude towards Financial Services: A Study of Rural and Semi Urban Region of Gujarat

Prof. Devendra Lodha<sup>1</sup>, Prof. Gargi Vyas<sup>2</sup>,

<sup>1</sup> Research Scholar & Asst.Prof. Ahmedabad Institute of Technology, Gujarat, India

<sup>2</sup> Research Scholar & Asst.Prof. Kalol Institute of Management Studies, Gujarat, India

Email - vyasgargi.kim@gmail.com

**Abstract:** As India having a more population in the Rural and Semi urban areas it's the necessity to make some awareness about the financial market and create financial literacy amongst those people who residing in that rural region to expand the reach of the financial market and increase the participants in the financial services market. Creating financial literacy interventions is an obvious and common sense response to the increased complexity of the financial world and to remove the mis-perception regarding various financial tools. Because People from the Remote area like Rural and Semi urban region have mis-perceptions due to less financial literacy and limited knowledge of the financial services offered in the market due to lack of education and awareness. Financial service market covers many aspects and many different tools to be used as per the need of the Investor in the Market Down time even.

This Descriptive Study mainly designed to focus on the level of financial literacy among the Rural and Semi urban region. And to know the Attitude towards the financial services in the Market downtime. As its truth that Literacy can makes Sense and attitude towards the particular object. So here this study investigate the samples of 122 participants from the rural and semi urban area to check the impact of financial literacy on the attitude towards the various financial services offered in the market in the market downtime. The study concludes with the several factors like Awareness of financial Service market, Perception towards the financial services offered, level of risk aversion capacity, and Attitude towards the financial services offered in the market.

**Key Words:** Financial Market, Financial Literacy, Attitude towards Financial Services, level of risk aversion capacity

### 1. CONCEPTUAL FRAMEWORK OF FINANCIAL LITERACY:

Many experts observed the different remedies in their past researches to increased financial literacy and financial education (Hilgert et al. 2003, Greenspan 2005, Morton 2005, Lusardi and Mitchell 2007, Mishkin 2008, Dodd-Frank 2010). It is a solution that appeals to all political persuasions and to all geographies. For example, the Second Annual Child and Youth Finance Summit in Istanbul in May of 2013 brought together experts describing initiatives by the US, UK, Turkey, Chile, the Philippines, Chile, Nigeria, Egypt, Ghana, Nepal, Macedonia, Spain, the United Nations to provide financial education to millions.<sup>1</sup> Worldwide, employers, non-profits, and governments are creating educational interventions that have real costs and create much larger opportunity costs by supplanting some other activities, such as required high school courses that replace other electives. We estimate these real and opportunity costs to be in the billions.<sup>2</sup> (Wider, 2006) have observed that, the investment adviser accreditation threshold for "accredited investors," liberalization of the manner of offering restrictions, increasing financial tests for individuals qualified to invest in hedge funds, and the necessity for general solicitation restrictions. (Rickwood & White, 2009) stated in their study, Although previous studies have found that lifecycle stages determine the financial needs and wants of consumers (Javalgi and Dion, 1999), this research reveals that when it comes to saving for retirement, marriage is the trigger for consumers to consider longer term savings plans.

financial development is widely recognized as an important determinant of economic growth, with a large literature examining the determinants of the supply of banking and financial intermediation services Levine (2005). Yet the determinants of the demand for financial services are much less well understood, particularly in emerging market countries. An important feature of emerging markets is the size of the informal sector. Recent estimates place the size of the informal economy at 14% of GDP in China, 23% in Indonesia, and 24% in India, against 8% in the United States. Buehn and Schneider (2009). In 76 emerging market countries, the average

<sup>1</sup> See <http://www.childfinanceinternational.org/program-2013/summit-program-overview-2013>

<sup>2</sup> Daniel Fernandes (affiliation: Rotterdam School of Management, Erasmus University, The Netherlands..

John G. Lynch, Jr. (affiliation: Leeds School of Business, University of Colorado-Boulder, Boulder.

Richard G. Netemeyer (affiliation: McIntire School of Commerce, University of Virginia, Charlottesville, VA.

\* To whom correspondence should be addressed. We are grateful to the National Endowment for Financial Education for financial support for this work.

size of the informal sector is almost 36% of GDP. Arguably, drawing these individuals and firms into the formal financial sector would be one of the fastest ways to foster financial development in emerging markets. (Cole, Sampson, & Zia, 2010).

## 2. REVIEW OF LITERATURE:

Hassan Al-Tamimi, Hussein A; Al Anood Bin Kalli (2009), concluded in their research on **Financial literacy and gender**, that a significant difference in the level of financial literacy was found as well between the respondents according to their gender. Specifically, women have a lower level of financial literacy than men. Hassan Al-Tamimi, Hussein A; Al Anood Bin Kalli (2009) in their study on **Financial literacy and investment decisions** found that there is a significant relationship between financial literacy and investment decisions. The most influencing factor that affects the investment decision is religious reasons and the least affecting factor is rumors. Disney, Richard; Gather good, John (2013) observed individuals who borrow on consumer credit exhibit worse financial literacy than those who do not. Borrowers with poor financial literacy hold higher shares of high cost credit than those with higher literacy. They also show that individuals with poor financial literacy are more likely to lack confidence when interpreting credit terms, and to exhibit confusion over financial concepts. They are also less likely to engage in behavior which might help them to improve their awareness of the credit market, observed in their research on **financial literacy and consumer credit portfolios. Literacy, awareness, and conservation behavior of residential households** Detailed survey of 1721 households examine awareness, literacy and behavior of households with respect to their residential energy expenditures consumers are aware of their energy consumption and whether they have taken measures to reduce their energy costs. Results show that "energy literacy" and awareness among respondents is low: just 56% of the respondents are aware of their monthly charges for energy consumption, and 40% do not appropriately evaluate investment decisions in energy efficient equipment. They describe that demographics and consumer attitudes towards energy conservation, but not energy literacy and awareness, have direct effects on behavior regarding heating and cooling of the home. The impact of a moderating factor, measured by thermostat settings, ultimately results in strong variation in the energy consumption of private consumers. **Investment in financial literacy and saving decisions of population** Jappelli, Tullio; Padula, Mario (2013) presented an inter temporal consumption model of investment in financial literacy. Consumers benefit from such investment because financial literacy allows them to increase the returns on wealth. Since literacy depreciates over time and has a cost in terms of current consumption, the model delivers an optimal investment in literacy. Furthermore, literacy and wealth are determined jointly, and are positively correlated over the lifecycle. Research analysis of the effect of financial literacy on wealth and saving and indicates that the stock of financial literacy early in life is a valid instrument in the regression of wealth on financial literacy. **Psychosocial Factors and Financial Literacy** Social Security Bulletin (2013) explores the relationship between financial literacy and several economic and psychosocial variables. After controlling for earnings, level of education, and other socioeconomic variables in this exploratory study, this research concludes that financial satisfaction and religiosity are correlated with financial literacy so ultimately Psychological Factors makes a positive impact on Financial literacy. **Relation Wealth of Financial Literacy and Accumulation** An article (Haliassos and Bertaut, 1995; Vissing- Jorgensen, 2004) identifies and highlights two channels through which financial literacy might facilitate wealth accumulation. First, a high level of financial knowledge lowers the costs of gathering and processing information and reduces barriers to investing in the stock market.

There is a positive correlation between literacy and wealth accumulation and ultimately financial literacy is found to be positively associated with retirement planning behavior (Ameriks et al., 2003; Lusardi and Mitchell, 2007, 2009, 2011a) There is a positive relationship between pension wealth and knowledge by Gustman (2010) argues that the causality is more likely to run from pension wealth to pension knowledge than the other way around. **Risk Taking, Diversification Behavior And Financial Literacy Of Individual Investors October 2012 (E. Cavezzali, G. Gardenal, and U. Rigoni)** This research investigates whether the financial literacy of individuals influences risk taking decisions and diversification behavior. This issue is relevant in that investors are increasingly in charge of their own financial security, but they have to deal with financial instruments whose increasing complexity often eventually prevents them from making conscious investment decisions. they found that financial literacy plays a role in risk taking decisions, positively affecting how much risk individuals are willing to take. Moreover, only those who are literate in terms of diversification select less risky portfolios; the others merely increase their risk exposure, without managing it. **Financial Illiteracy and Stock Market Participation (Joanne Yoong) October 2010** Financially unsophisticated consumers who consistently make sub-optimal financial decisions may suffer lasting consequences for long-term wealth accumulation and welfare. This paper focuses attention on a well-documented area of potentially suboptimal financial decision making: the lack of stock market participation. Using a broad-based assessment of financial literacy administered to a sample of older American respondents in the RAND American Life Panel (ALP) using knowledge of other financial topics as instrumental variables. They found that ignorance of stock market investment knowledge significantly reduces propensity to hold stocks.

### 3. PURPOSE OF THE STUDY:

This study focuses on the level of the awareness about the financial institutions and various financial services offered by such institution and also it further examine the attitude towards these services of rural and semi urban people of India.

### 4. RESEARCH METHODOLOGY:

Highly expanded credit availability and new borrowing options such as Consumer Credit, Retail Credit options, payday loans, debt consolidation loans and other Credit bearing tools available in the current financial market and also expanded reach of financial institution in the different forms of financial services leads to the foundation of the new generation financial system, which dominates to the current growth of the nation. In this arena it's important that people of the country aware about such financial options and other financial services offered in the market. more than 50% Indian population residing in the rural and semi urban areas. So its necessity to create the financial literacy and financial education as a basic need of current financial system to expand the reach of the financial system and services offered in the Rural and Semi urban areas of Indian region.

**Research Design:** - this research going to describe different features of financial services and its awareness, perception level, and other financial Literacy characters to know the attitude towards such services. So its seems to be a Descriptive and Exploratory research design in nature

**Data sources:** - For the purpose of the study both the Primary data and secondary data utilized to achieve the purpose of the study. Primary data collected from the respondents directly and secondary data collected through the various sources like. E.g. financial Institution Websites, Financial Magazine and past researches in this area.

**Population:** - Population covers respondents from rural and semi urban areas those who are financial services beneficiaries and other such who didn't avail this services ever before. Population tends to be infinite or unknown.

**Sampling method:** - As study observed different group of the different Rural and semi urban areas, which are different in the characters to know the financial Literacy, so Cluster sampling method used to collect the samples from the population.

**Sampling unit** :- Research Mainly targets the people residing in the rural and semi urban areas of Gujarat.

**Sample size** :- 100 samples were taken in the form of different clusters from the different areas of Gujarat.

**Sampling Area** :- Rural and Semi urban areas of North Gujarat, Central Gujarat, South Gujarat, Surashtra and Kutchh.

**Research Approach** :- Survey method is used to collect the primary data from the respondents

**Research Instrument** :- Close Ended-Questionnaire utilized to collect the data

**Research Territory** :- Different Regions of Gujarat

### 5. ANALYSIS AND DISCUSSIONS:

Table I: - Data Analysis of Respondents

Particulars	Number of Respondents				Total
	Male	Female			
Gender Respondent	83	39			122
Age Respondent	18 -34	35 – 44	45- 55	55 above	122
	41	36	34	11	
Education Respondent	Up to Schooling	Graduate	Post Graduate	Doctoral/Professional Qualification	122
	54	41	21	06	
Occupation Respondent	Government Employee	Private Sector Employee	Businessman/ Professional	Retired & Other Rural Business	122
	26	29	28	39	
Income (Annual) Respondent	Below 5 Lac	5 Lac – 7 Lac	7 Lac – 10 Lac	More than 10 Lac	122
	54	29	21	18	

The above analysis shows the bifurcation of the respondents amongst the different category of variables. Out of total samples of 122 respondents 68% Respondents are male and 32% female respondents. Highest respondents belongs to the age group of 18 to 34 years, which is around 34% and the next highest responses have been observed in the age group of 35-44 years and 45-55 years, which are around 30% and 28% respectively. Highest 44% respondents having a education up to schooling and 34% respondent possess the graduation as their education. Further observation came to the notice that 32% respondents are Retired/Engaged in the Agricultural activities and around 24% employed in the private sector jobs. Majority 44% respondents having an annual income less than Rs.500000. and 24% respondents falling in the income group of 5 Lac-7 Lac.

## 6. CRONBACH'S ALPHA- TESTING RELIABILITY OF SCALING:

The Following table shows the Reliability of data mentioned in the table III, which indicates the

**Table II :- Case Processing Summary**

		N	%
Cases	Valid	122	100.0
	Excluded <sup>a</sup>	0	.0
	Total	122	100.0

**Table III :- Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.772	.788	30

a. Listwise deletion based on all variables in the procedure.

As the below mentioned statistics of Reliability (Table III), shows the Cronbach's Alpha 0.772, which is greater than 0.6. Which means that scale used to collect the data is reliable and data accuracy have been maintained during the collection of data from the Respondents. And this also indicates that data is reliable for the further study as the calculated reliability value apprx.77.2% which is a good indicator for the collected data as it shows the accuracy and can produce a good result based on this data by further analysis.

### ANOVA with Tukey's Test for Nonadditivity: - Testing Data Variation and Additivity ANOVA with Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	F	Sig
<b>Between People</b>			646.804	121	5.345		
	Between Items		765.137 <sup>a</sup>	29	26.384	536.234	.000
	Nonadditivity		1.209 <sup>b</sup>	1	1.209	.991	.320
<b>Within People</b>	Residual	Balance	4281.921	3508	1.221		
		Total	4283.130	3509	1.221		
	<b>Total</b>		5048.267	3538	1.427		
<b>Total</b>			5695.071	3659	1.556		

Grand Mean = 2.6120

a. Kendall's coefficient of concordance  $W = .134$ .

b. Tukey's estimate of power to which observations must be raised to achieve additivity = .753.

The above stat shows the variation in the data that have been analyzed, this test of “ANOVA with Tukey's Test for Nonadditivity”, shows that data is significant as between people variation is significant as it shows the value 0.000 which is less than 0.05. so further analysis can be done and also the additivity of the data also sufficient and reliable to test further statistics

### Hotelling's T-Squared Test:-

#### Hotelling's T-Squared Test

Hotelling's T-Squared	F	df1	df2	Sig
1187.941	31.484	29	93	.000

Regarding the normality assumption, if the Central Limit Theorem holds, and we can proceed as if the populations were normal. It turns out that the t-test is pretty robust for violations of the normality assumption provided each population is relatively symmetric about its mean. Here Hotelling T-Squared test for the data is significant as it gives the value 0.000 which is less than the level of significance which is 0.05. so we can assume that data collected is normally distributed.

## 7. CLUSTER ANALYSIS OF FINANCIAL LITERACY: Test for Data Classification

### 7.1 Average Linkage (Between Groups)

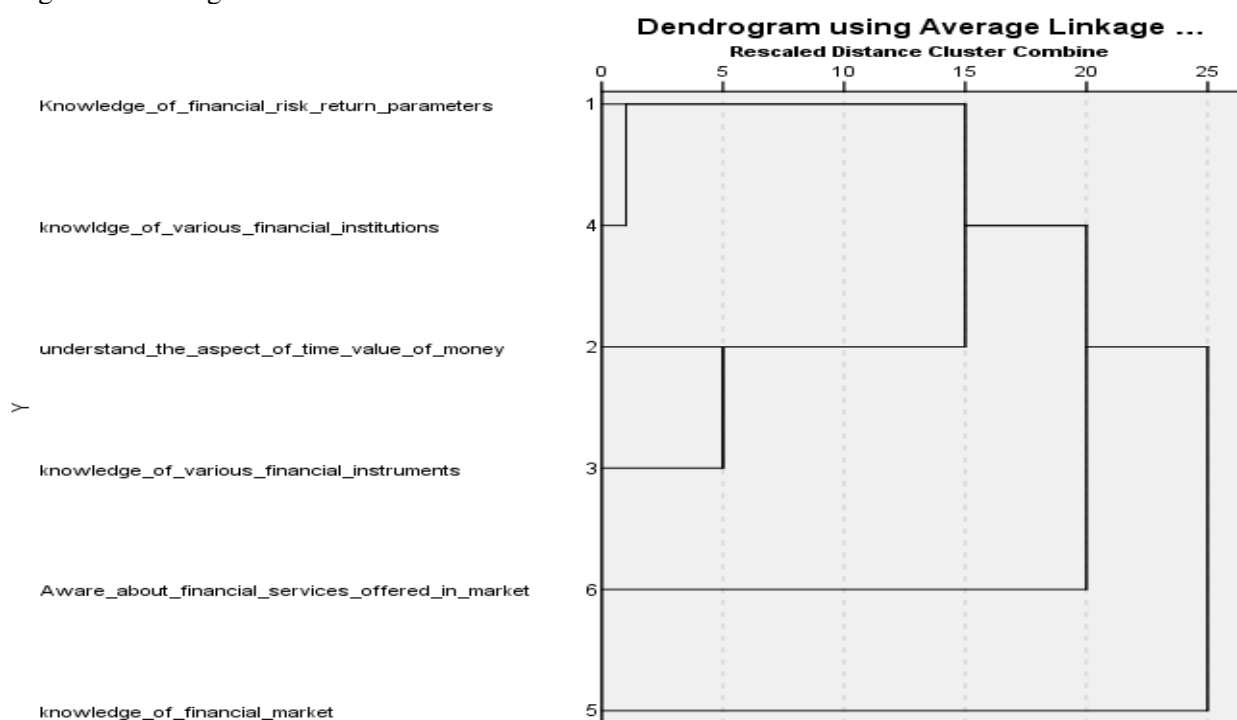
The term cluster analysis (first used by Tryon, 1939) encompasses a number of different algorithms and methods for grouping objects of similar kind into respective categories. A general question facing researchers in many areas of inquiry is how to organize observed data into meaningful structures, In other words cluster analysis is an exploratory data analysis tool which aims at sorting different objects into groups in a way that the degree of association between two objects is maximal if they belong to the same group and minimal otherwise. He In other words cluster analysis is an exploratory data analysis tool which aims at sorting different objects into groups in a way that the degree of association between two objects is maximal if they belong to the same group and minimal otherwise. Here in this research Cluster analysis performed to make data more sensible to create a cluster of similar data, because no specific pattern or criteria followed in the collection of the data so it would be better to create a cluster for the data.

**Agglomeration Schedule**

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	1	4	58.000	0	0	3
2	2	3	73.000	0	0	3
3	1	2	107.500	1	2	4
4	1	6	127.250	3	0	5
5	1	5	145.600	4	0	0

Here Agglomeration Schedule shows at the stage 1 variable {1, 4} having a lowest coefficients 58.00 which represents the lowest differences than the other stages, and similarly Stage 2 shows the next lowest distance with the variable {2, 3}. And so on if we go further it will show the increasing order of distance in terms of coefficient for the next stages. More idea about the cluster formation should be cleared from the Dendrogram which represent the linkages between the variables.

Here on the basis of the Dendrogram it have been clearly visible that there are 3 possible clusters can be formed on the basis of the variable linkages first cluster can be formed out with the variable {1,4} which is having a close linkages. Cluster 2 formed between variable {2, 3} and cluster 3 can be formed between variable {6, 5} which are having a close linkages between



## 7.2 Testing Attitude towards Financial Literacy – Factor Analysis

## KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	305.379
	Df	21
	Sig.	.000

**Kaiser-Meyer-Olkin (KMO) Test:** - The Kaiser-Meyer-Olkin (KMO) test statistics represent the strength of the association among variables and sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed. Here value of the test arrives at 0.891 which is greater than the 0.5 which is adequate for the further processing. And represent that there is strength of the relationship amongst the variables and can proceed further for the factor analysis **Bartlett's Test:-**

**Bartlett's test** is another measure of the strength of the association among variables. This tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is matrix in which all of the diagonal elements are 1 and all off diagonal elements are 0. From the same table, Bartlett's test of sphericity is significant That is, its associated probability is less than 0.05.

In fact, it is actually 0.000, i.e. the significance level is small enough to reject the null hypothesis. This means that correlation matrix is not an identity matrix.

## Communalities

	Initial	Extraction
Risky Involvement in Financial Services	1.000	.515
Perceived Debt	1.000	.585
Risk of Repayment	1.000	.405
Financial Security and Safety Issues	1.000	.607
Fear of Monetary Loss	1.000	.581
Trust Worthiness	1.000	.584
Aware but don't want to avail	1.000	.514

Extraction Method: Principal Component Analysis.

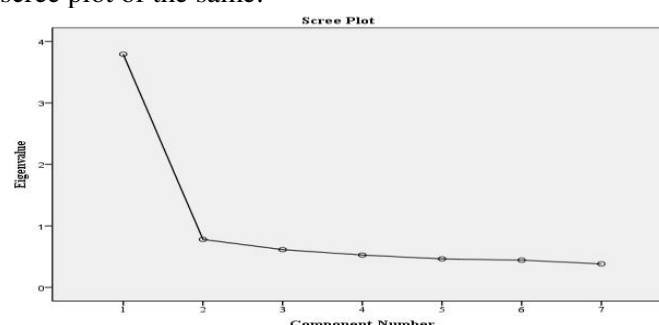
Communalities, which explains the relation between the variables, here from the above table it has been observed that financial security and safety variable is highly correlated in comparison to the other variables

## Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.792	54.170	54.170	3.792	54.170	54.170
2	.780	11.138	65.308			
3	.614	8.768	74.076			
4	.526	7.516	81.592			
5	.464	6.622	88.214			
6	.443	6.323	94.537			
7	.382	5.463	100.000			

Extraction Method: Principal Component Analysis.

The above table shows the how the variance divided amongst the eight possible factors. Amongst which 3 factors having an Eigen Values greater than 1.00 which is a common criterion for a factor to be useful which indicate by only one factor lets observed in the scree plot of the same.



The scree plot showing a graph of the Eigen values against all the factors. The graph is useful for determining factors to retain. The point of interest is where the curve starts to flatten. It can be observed that the curve begins to flatten after factor 1. Note also that rest of the factors have an Eigen value of less than 1, so only one factors have been retained. The standardized variance associate with a particular factor. The sum of the Eigen values scan not exceeds the number of items in the analysis, since each item contributes one to the sum of variances

### 8. COMPONENT (FACTOR) MATRIX:

The table below shows the loadings of the seven variables on the single factor extracted. The Higher the absolute value of the loading, the more the factor contributes to the variable. The gap on the table represent loadings that are less than 0.5, this makes reading the table easier. Suppressed all loadings less than 0.5. The factor component(Factor) matrix shows that highly variation observed in the attitude towards financial services have been observed by only one variable which is Financial safety and security issues which can be a major reason to build the attitude towards the financial services. As it shows the highest factor loading which is 0.779, which can be approx. 77.9%.

**Component (Factor) Matrix<sup>a</sup>**

	Component
	1
Risky Involvement in Financial Services	.717
Perceived Debt	.765
Risk of Repayment	.637
Financial Security and Safety Issues	<b>.779</b>
Fear of Monetary Loss	.762
Trust Worthiness	.765
Aware but don't want to avail	.717

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

So the above component matrix concludes that highest effective variable to construct the attitude towards the financial service is financial security and safety issues.

### 9. CONCLUSION:

This 122 sample study among the several village surroundings of Gujarat have undertaken to check the Impact of Financial Literacy on Attitude towards Financial Services in the market Downtime, from the analysis of different clusters of the different villages of Gujarat, it came to notice that there are several variable which make an impact on the financial Literacy like basic education and profession, apart from this the most important factor which have been considered by the respondent in the downtime for the perceived image of the financial services is Financial Service Safety and Security, Majority of the respondents build their attitude on the basis of this variable(Factor) as it has already been proved through the factor analysis. As data collected through the different village (rural and semi urban areas) of Gujarat no such pattern have been followed so, data have been asserted on the basis of the several characters (variables) of financial literacy. Also normality test represent that collected data have been normal to perform such analysis and can bring the suitable result for the further analysis.so for the financial services survival and to review the image in the mind of the respondents companies need to target these cluster by providing them a product with a moderate return but safe for the investment.

### REFERENCES:

1. Wider , Jedd. (2006). The Investment Advisers Act: the need for clarity in the post-Goldstein era. *Journal of Investment Compliance*, 7(4), 12–15. <http://doi.org/10.1108/15285810610719907>
2. Cole, S., Sampson, T., & Zia, B. (2010). Prices or Knowledge ? What Drives Demand for Financial Services in Emerging Markets? *Prices or Knowledge ? What Drives Demand for Financial Services in Emerging Markets ?*, LXVI(6), 1933–1968.
3. Rickwood, C., & White, L. (2009). Pre-purchase decision-making for a complex service: retirement planning. *Journal of Services Marketing*, 23(3), 145–153. <http://doi.org/10.1108/08876040910955152>
4. Lang, Frieder R., Dorothee Hahne, Stefanie Gymbel, Stefan Schroepper, and Katharina Lutsch, 2005, Erfassung des kognitiven leistungspotenzials und der "Big Five" mit computer-assistedpersonal- interviewing (CAPI): Zur reliabilitaet und validitaet zweier ultrakurzer tests unddes BFI-S, DIW Research Note, German Institute for Economic Research.
5. Imbens, Guido W., and Joshua D. Angrist, 1994, Identification and estimation of local average treatment effects, *Econometrica* 62, 467–475.

6. Angrist, J., A. Krueger. 2001. Instrumental variables and the search for identification: From supply and demand to natural experiments. *J. Economic Perspectives* **15**(4) 69–85.
7. Brinberg, D. L., J. G. Lynch, A. G. Sawyer. 1992. Hypothesized and confounded explanations in theory tests: A Bayesian analysis. *J. Consumer Res.* **19**(September) 139–154.
8. Collins, J. M., C. M. O'Rourke. 2010. Financial education and counseling – still holding promise. *J. Consumer Affairs* **44**(3) 483–489.
9. Gneezy, U., S. Meier, P. Rey-Biel. 2011. When and why incentives (don't) work to modify behavior. *J. Econom. Perspectives* **25**(4) 191–210.
10. Hader, L., S. Sood, C. R. Fox. 2013. It's not only what you know but also how knowledgeable you feel: Subjective knowledge in consumer financial decisions. *J. Marketing Res.* in press.
11. Hilgert, M., J. M. Hogarth, S. Beverly. 2003. Household financial management: The connection between knowledge and behavior. *Fed. Res. Bull.* **89**(July) 309–322.
12. Lusardi, A., O. S. Mitchell. 2007. Financial and retirement preparedness: Evidence and implications for financial education. *Bus. Econom.* **42**(1) 35–44.
13. Lusardi, A., O. S. Mitchell. 2013. The economic importance of financial literacy: Theory and evidence. Working paper, National Bureau of Economic Research, Cambridge, MA. <http://www.nber.org/papers/w18952>
14. Lynch J. G., R. Netemeyer, S. A. Spiller, A. Zammit. 2010. A generalizable scale of propensity to plan: The long and the short of planning for time and money. *J. Consumer Res.* **37**(June) 108–128.
15. Meier, S. 2011. Discussion of the paper 'investment in financial literacy and savings decisions by Jappelli and Padula. Presentation, National Bureau of Economic Research, Cambridge, MA.
16. Mishkin, F. S. 2008. The importance of economic education and financial literacy. Speech at the Third National Summit on Economic and Financial Literacy (Feb. 27, 2008). Available at: <http://www.c.federalreserve.gov/newsevents/speech/mishkin20080227a.htm>
17. Weber, E. U., A. R. Blais, N. E. Betz. 2002. A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *J. Behavioral Decision Making* **15** 263–290.
18. Bell, Catherine, Daniel Gorin, and Jeanne M. Hogarth (2009), "Does Financial Education Affect Soldiers' Financial Behaviors?" Working paper, Indiana State University, [http://www.networksfinancialinstitute.org/Lists/Publication%20Library/Attachments/140/2009-WP-08\\_Bell\\_Gorin\\_Hogarth.pdf](http://www.networksfinancialinstitute.org/Lists/Publication%20Library/Attachments/140/2009-WP-08_Bell_Gorin_Hogarth.pdf).
19. Bernheim, B. Douglas, and Daniel M. Garrett (2003), "The Effects of Financial Education in the Workplace: Evidence from a Survey of Households," *Journal of Public Economics*, 87, 1487-1519.
20. Bernheim, B. Douglas, Daniel M. Garrett, and Dean M. Maki (2001), "Education and Saving: The Long-Term Effects of High School Financial Curriculum Mandates," *Journal of Public Economics*, 80 (3), 435-465.
21. Burke, Jeremy, and Kata Mihaly (2012), "Financial Literacy, Social Perception and Strategic Default," Working Paper, RAND Corporation, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2102648](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2102648).
22. Chang, Eric C., Dragon Yongjun Tang, and Miao Zhang (2010), "Financial Literacy and Household Investments in Structured Financial Products," Working Paper, University of Hong Kong, <http://emf.cafr.cn/data/papers/34.pdf>.
23. Clancy, Margaret, Michal Grinstein-Weiss, and Mark Schreiner (2001), "Financial Education and Savings Outcomes in Individual Development Accounts," Working Paper, Center for Social Development, Washington University in St. Louis, [http://microfinance.com/English/Papers/IDAs\\_Financial\\_Education.pdf](http://microfinance.com/English/Papers/IDAs_Financial_Education.pdf).
24. Clark, Robert, Melinda S. Morrill, and Steven G. Allen (2011), "The Role of Financial Literacy and Knowledge in Determining Retirement Plans," *Economic Inquiry*, 1-16.