International Journal of Academic Research in Accounting, Finance and Management Sciences
Vol. 3, No.3, July 2013, pp. 111–117
ISSN: 2225-8329

www.hrmars.com

The Study of University Professors' Financial Literacy

Shahnaz NAYEBZADEH[1]
Marzieh Kalantari TAFT[2]
Mohammad Mir Mohammadi SADRABADI[3]

[1]*Department of Management, Yazd Branch, Islamic Azad University, Yazd, Iran*
Safaieeh, Shoahadegomnam Road, Zip code: 89195/155, Yazd, Iran
Tel: (++98)351-8211391; Fax: (++98)351-8214810, Email: snayebzadeh@gmail.com
[2]*Department of Accounting, Yazd Branch, Islamic Azad University, Yazd, Iran*
Safaieeh, Shoahadegomnam Road, Zip code: 89195/155, Yazd, Iran
Tel: (++98)351-8211391; Fax: (++98)351-8214810
Email: Kalantari.Marziyeh@yahoo.com (Corresponding author)
[3]*Department of Accounting, Yazd Branch, Islamic Azad University, Yazd, Iran*
Safaieeh, Shoahadegomnam Road, Zip code: 89195/155, Yazd, Iran
Tel: (++98)351-8211391; Fax: (++98)351-8214810, Email: M.mir.m2010@Gmail.com

Abstract *Industrial revolution, economic crises, and facilitation and expansion of global communication have increased the volume of transactions and management complexity. This complexity has led to a situation that people are not able to simply make good financial decisions in their business and personal life. With the financial and economic activities becoming more difficult, countries have concluded that whole the public essentially need to be trained about financial issues. The study of financial literacy of population has become a matter of interest to some researchers; therefore, some studies have been done in this area. In this respect, the current study attempts to investigate financial literacy of university professors. For this purpose, a questionnaire was designed; then, using random sampling, they were distributed among selected individuals. The data was collected using statistical analyses such as correlation, independent samples T-test and ANOVA. The results showed that university professors lack essential financial information for handling their daily financial issues. There was a relationship between financial literacy and marital status characteristics, and finally there was not significant relationship between variables such as age, education and employment status with financial literacy.*

Key words Financial literacy, financial knowledge, university professors, education, employment status, financial decisions

DOI: 10.6007/IJARAFMS/v3-i3/42 URL: http://dx.doi.org/10.6007/IJARAFMS/v3-i3/42

1. Introduction

Financial planning is one of the important factors in the success of personal life and also organizational success in the business world. Financial planning is a set of financial forecasts that prepares a person for a peaceful and prosperous life in the future and provides the organization for success in the near or far competition world. Financial literacy is the requirement of having an appropriate financial strategy both in organization management and personal life. Financial literacy is actually the knowledge of principles and terminologies of financial issues. Financial Strategy functions as a dynamic effect on the person and prepares him to respond appropriately to financial conditions and worries; by making a positive attitude, financial literacy can also improve the individual's performance; this way the individual can make proper decisions and reduce the financial and business concerns and achieve financial prosperity. Financial literacy provides the ability to read, analyze, understand financial choices, plan for the future, and react properly to incidences that affect everyday financial decisions. The ability to manage financial issues impacts on the job and life conditions. Financial literacy or, in other words, knowing the conditions, methods, laws, rights, social norms and attitudes necessary to understand and perform these financial tasks can help a lot in terms of having a foresight to the management of financial and monetary issues and also of increasing the individual's income. Despite the importance of financial literacy, research has shown that this ability is not much found in both developing and underdeveloped countries; Barriers such as lack of knowledge about personal financial problems, financial difficulties of life, having numerous options when making financial decisions and not having enough time to learn personal financial issues have led to low financial literacy among individuals (Vitt et al., 2000). This study tries to answer the following question.

1. What's the rate of professors' financial literacy?
2. How are demographic characteristics including age, sex, marital status, and education related to financial literacy?

The answer to the first question tells us about the level of professors' financial literacy, and the second question clarifies the relationship between demographic variables and financial literacy. This study can provide useful information about the financial literacy of university professors. The results of this study can help the employees enhance their performance in the workplace and the quality of their lives.

2. Theoretical Background and Literature Review

2.1. Financial Literacy

So far, several definitions of financial literacy and personal finance have been presented in the related literature. According to Remund (2010), financial literacy is individuals' ability in receiving information, analyzing and management of their personal finances in a way that affects their financial well-being. This represents the ability to collect data in a way that distinguishes various financial options; some other issues including monetary and financial issues, and planning and responding to events that affect everyday financial decisions have been defined in this framework. Vitt et al. believe personal financial knowledge as the ability to read, analyze, manage personal financial issues that affect an individual's life; these include the ability to understand financial options, discussions without any financial problems, planning for the future, and responding appropriately to events that affect everyday financial decisions (such as the events that affects the general economy). Financial literacy and the knowledge of tools, techniques and methods of financial management are known as one of the world's most important needs for community. Hogarth (2002) states five major reasons for the importance of personal financial knowledge.

1. Informed and educated consumers should make better decisions for their families to increase their economic security and well-being.
2. An effective and sufficient market requires informed consumers to make informed decisions.
3. Three kinds of demographic changes will impact on the economy: Nannies' aging, young people who are seeking to achieve financial independence without having sufficient model or experience, and immigrants who need to learn in order to be able to manage their financial affairs in the U.S. markets.
4. The responsibility for long-term well-being has been put on people in the past 15 to 20 years, while employers and the government were responsible for that.
5. Financial markets have become highly complex in the 21st century.

One of the factors affecting the financial literacy of individuals is gender. Danes and Haberman (2007) studied differences in financial literacy of 5329 high school girls and boys. The primary objective of this study was to answer whether the level of financial knowledge has increased and whether the cost and savings behavior will vary based on gender? The results showed that male students got higher scores on both tests. This study was very important as it provided a better view on the types of programs that should be held for different groups.

Another factor affecting the financial literacy is age. According to the study by Lusardi et al. (2006), financial knowledge among young Americans is less than older people, in a way that less than a third of young people have no sufficient information about interest rates, inflation and risk diversification, which are the three important financial issues. In 2010, Cude examined factors affecting individuals' financial literacy. His results showed that the following cases increase people's financial literacy: higher level of education, risk taking, aging, high work experience, family income, parental occupation and attendance in training classes.

Numerous studies have been conducted so far in the field of financial literacy; in the forthcoming sections of this study, some of them which are closely related to the content of this study are briefly stated. In his study, Cude (2010) states that people with higher financial literacy are more successful in their professional and personal life. They have less financial concerns and they have more long-term saving and investments and by having this long-term vision, they will experience a better future.

Luserdi et al (2010) investigated the factors associated with financial literacy among American youth. The research sample consisted of 7417 individuals which was collected through random sampling. The results of these researchers showed that social factors, family factors, family financial status, and parents' academic education influenced individuals' financial literacy; this was in a way that those with higher education parents had higher levels of financial literacy. Also, men had a higher level of financial literacy and also as people got older their level of financial literacy increased. This study also showed that the cultural level of the family, their income, parental participation in equity investment, parents' investment and their race were related to financial literacy level.

Tamimi and Culli (2009) studied the impact of financial literacy on financial decisions. Their results showed that their field of activity influences their financial literacy and those who invested in banks and stock exchange had a higher financial literacy level. The survey also showed that men had higher financial literacy and higher income, age and education resulted in higher financial literacy.

3. Methodology of Research

As the findings of this study deals with solving a real-world problem, and the results can be applied in actual decision making situations, this study is an applied research. Regarding data collection, this is an analytic survey, as it examines the characteristics of a population and analyzes the obtained data. Six hypotheses were discussed to achieve the main objective. These hypotheses are as follows:

Hypothesis I: University professor are financially literate.

Hypothesis II: Financial literacy is positively correlated with age.

Hypothesis III: There is a significant difference between men and women in financial literacy.

Hypothesis IV: There is a significant difference between single and married people.

Hypothesis V: There is a positive relationship between financial literacy and education.

Hypothesis VI: There is a positive relationship between individuals' financial literacy and their employment status.

Hypothesis I, has been proved through independent one-sample mean comparison test. ANOVA was conducted to prove hypotheses II and V. Hypotheses III, IV and VI were tested using independent samples t test. The population under investigation is professors of Yazd Islamic Azad University. The following formula is used to determine the sample size:

$$n = \frac{\dfrac{z^2_{\alpha/2} \times p \times q}{d^2}}{1 + \dfrac{1}{N}\left(\dfrac{z^2_{\alpha/2} \times p \times q}{d^2}\right)} \tag{1}$$

Where: n (= 94) is the sample size, N (= 550) is population size, α (= 0.05 (is SE of the percentage of acceptable reliability, p (= 0.5) is proportion of the population having a certain feature, q (= 0.5) is 1-p and d (= 0.07) is degree of confidence or potential efficiency. Based on statistical analysis, the sample size has been taken as 94 which were selected from the population through simple random sampling.

4. Measuring financial literacy

Chen and Wulp's (1998) questionnaire was used to measure financial literacy of individuals. This questionnaire attempts to take into account important factors of personal finance in financial literacy. These factors include: general knowledge of finance (composed of 9 questions), savings and loan (composed of 9 questions), insurance (6 questions), investment (7 questions), and financial decisions, financial opinions and financial education (composed of 8 questions). A five-point Likert scale was used in this questionnaire in which score 1 indicated a bad condition and score 5 indicated the best condition for a person in that question.

5. Reliability and validity of the questionnaire

In order to check the validity of the questionnaire, it was given to several professors and the necessary modifications suggested by them were applied for the final design. Regarding the reliability, the financial literacy questionnaire has been standardized. The data were analyzed using SPSS. The results of descriptive statistics are presented in Table 1.

Table 1. Results of Descriptive Statistics

Percentage	N	Status	Demographic features
49	46	below 35 yrs	age
36	34	36-45 yrs	
12	11	46-55 yrs	
3	3	Above 65	
69.15	65	Male	sex
30.85	29	Female	
20.21	19	Single	Marital status
79.79	75	Married	
60.64	57	Visiting professor	Employment status
39.36	37	Faculty member	
30.9	29	Economy, management & accounting	Field of study
26.6	25	Human sciences	
19.1	18	Basic Sciences	
22.3	21	Technical & engineering	
1.1	1	Medical sciences	

Results of the research hypotheses

Independent one-sample t-test was used in order to test the validity of Hypothesis I. In this test, the mean score of participants' financial literacy were calculated based on 100 and then were compared with 60.

Table 2. Independent one-sample t-test of financial literacy

	N	Mean	SD
Financial literacy	94	39.9420	16. 80777

An independent sample t-test which tests the equality of financial literacy means with a value of 60, it tests the null hypothesis this way: H0: $\mu \geq 60$ and for the H1, it is checked this way: H1: $\mu \leq 60$. According to t (-11.570) and p-value (0.000), which is less than 0.05, the null hypothesis is, thus, rejected at the 95% confidence level, i.e. the mean for financial literacy is not equal to 60. Based on the mean of financial profit (39.94) which is less than 60, it is concluded that professors are not financially literate.

To test the validity of Hypothesis II, ANOVA was used. The results of these tests are given in Table 3.

Table 3. One-sample t-test for financial literacy

One-Sample Test						
Test Value = 60						
Financial Literacy	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
	-11.570	93	.000	-20.05803	-23.5008	-16.6153

Test of homogeneity of variance			
Levin's (t)	df (1)	df (2)	level of sig
1.376	3	90	.255

ANOVA					
Financial literacy	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1832.615	3	610.872	2.249	.088
Within Groups	24443.102	90	271.590		
Total	26275.717	93			

First, test of homogeneity of variances was performed in which as the Levine t and p-value (0.255) is greater than 0.05, the null hypothesis is not rejected. This means that all five groups have had equal variances. Then one-way ANOVA was performed; with respect to the table of one-way ANOVA and F-value (2.249) and significant level (0.088), which is greater than 0.05, the null hypothesis is not rejected at the 95% confidence level. Therefore, there is no significant difference between age groups in financial literacy. So the hypothesis is not confirmed at 95% confidence level. To test the validity of Hypothesis III, independent samples t-test was used. The results of these tests are presented in Table 4.

Table 4. Independent samples t-test for material and financial literacy

Group Statistics					
	sex	N	Mean	Std. Deviation	Std. Error Mean
Financial literacy	Male	65	39.3007	16.63193	2.06294
	female	29	41.3793	17.40825	3.23263

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Financial literacy	Equal variances assumed	.184	.669	-.552	92	.582	-2.07861	3.76768	-9.56156	5.40433
	Equal variances notassumed			-.542	51.699	.590	-2.07861	3.83479	-9.77475	5.61753

Independent samples T-test was performed to examine the mean difference between financial literacy in two groups. By H0, it examines the means being equal, and by H1, it examines the means being unequal. According to t (- 0.552) and p-value (0.582) which is not less than 0.05, the null hypothesis is not reject at a confidence level of 95%. This means that the financial literacy of men and women are equal. Thus, this hypothesis is not confirmed. To test the validity of hypothesis IV, independent samples t-test was used. The results of this test are presented in Table 5.

Table 5. Independent samples t-test for marital status and financial literacy

	Marital status	N	Mean	SD
Financial literacy	single	75	41.8182	16.77613
	married	19	32.5359	15.17144

		Levene's Test for Equality of Variances		Independent Samples Test					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Financial literacy	Equal variances assumed	.103	.750	2.194	92	.031	9.28230	4.23124	.87868
	Equal variances notassumed			2.330	30.174	.027	9.28230	3.98332	1.14924

Education	N	Mean	SD
Diploma	3	37.8788	14.61159
B.A.	20	36.8182	17.38068
M.A	45	42.2222	15.31114
Ph.D.	26	38.6364	19.29544
Total	94	39.9420	16.80877

Test of homogeneity of variance			
Levine's (t)	df (1)	df (2)	Sig.
1.068	3	90	.367

Using independent samples T-test which examines the difference between financial literacy mean in two groups, by H0 it examines the means being equal and by H1, it examines the means being unequal. According to t (2.194) and p-value (0.031) which is less than 0.05, the null hypothesis is rejected at the 95% confidence level. It means that financial literacy mean is not equal for married and single people. Thus, the hypothesis is confirmed. To test hypothesis V, ANOVA was performed. The results of this test are given in Table 6.

Table 6. *ANOVA test for education group and financial literacy*

ANOVA					
Financial literacy	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	486.231	3	162.077	.566	.639
Within Groups	25789.486	90	286.550		
Total	26275.717	93			

	Employment status	N	Mean	SD
Financial literacy	Visiting professors	57	38.2775	16.76605
	Faculty member	37	42.5061	16.77705

At first, the homogeneity of variance test was performed; according to the Levine statistic and p-value (0.367) which is greater than 0.05, it can be concluded that the null hypothesis is not rejected. It means that all four groups have equal variances. Then one-way was performed; according to the table of one-way ANOVA and the F-value (0.566) and significant level (0.639), which is greater than 0.05, the null hypothesis is, thus, not rejected at the 95% confidence level. This means that there is no significant difference between the four groups of education in financial literacy. Therefore, the hypothesis is not confirmed. Independent samples t-test was used to test hypotheses VI. The results of this test are presented in Table 7.

Table 7. Independent samples t-test for employment status and financial literacy

		Levene's Test for Equality of Variances		Independent Samples Test					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Financial literacy	Equal variances assumed	.029	.865	-1.194	92	.235	-4.22863	3.54053	-11.26042
	Equal variances not assumed			-1.194	77.002	.236	-4.22863	3.54103	-11.27971

Using independent samples T-test which examines the difference between financial literacy mean in two groups, by H0 it examines the means being equal and by H1, it examines the means being unequal. According to t According to t (-1.194) and p-value (0.235) which is not less than 0.05, it can be concluded the null hypothesis is not rejected at 95% confidence level; it means that the mean for both financial literacy and employment status is equal. Therefore, the hypothesis is not confirmed.

6. Conclusions, limitations and applied recommendations

In this study, the level of financial literacy as well as the role of demographic characteristics such as age, gender, marital status, education, and employment status was examined. The results revealed several important points. First, there is a significant relationship between marital status and financial literacy. Second, university professors lack financial literacy.

The studies investigating the impact of psychological variables on financial literacy have revealed different results. The relationship between age and the variables have been investigated by the following researchers; Cude (2010), Lusardy et al. (2010), Kindle (2010), Wulp et al. (2002), and Tamimi and Kali (2009); in these studies, the relationship between age and financial literacy is proved. The relationship between sex and financial literacy has been examined insome studies such as Lusardy et al. (2010), Dewarak and Henley (2010), Peng et al. (2007), Volpe et al. (2006) and Chen and Volpe (1998); in these studies, higher financial literacy in men is concluded while in a study by Kindle (2010), the relationship between financial literacy and sex is rejected. The results of this study showed that men have higher financial literacy than women. Regarding the relationship between marital status and financial literacy, Volpe et al. (2002) has proved the relationship these two variables and stated that married people enjoy a higher financial literacy.

As stated, different studies have presented different results between demographic variables and financial literacy. An explanation for this difference may be the differences In time and location the investigation was conducted. This time and location can affect people's definition of financial literacy and their relationship with demographic variables.

In this study, in addition to the limitations in field methods and data collection, the researcher was limited in accurately measuring the financial literacy of individuals. So far, no questionnaire has been designed in which the cultural, social and economical status of Iran is considered. The questionnaire used in this study was one designed in other countries. The researchers have used these questionnaires through translating and evaluating their validity and reliability. It is suggested that the present study would be conducted in other groups and classes of people and their results be compared with the current one.

References

1. Chen, H. and Volpe, R. (1998), “An analysis of personal financial literacy among college students”, Financial Services Review, Vol. 7 No. 2, pp. 107-28.

2. Cude, B.J. (2010), "Financial Literacy", The Journal of Consumer Affairs, Vol. 44, No. 2.

3. Danes, S. M., Haberman, H. R. (2007). Teen financial knowledge, self efficacy and behavior: A gendered view: financial counseling and planning journal, 18, 48-60.

4. Hogarth, M. (2002). Financial Education and Economic Development. international Conference hosted by the Russian G8 Presidency in Cooperation with the OECD.

5. Kindle, P,(2010), " Student Perceptions of Financial Literacy: Relevance to Practice", Journal Service Research, Vol. 36, pp. 470-487.

6. Lusardi, Annamaria, and Olivia S. Mitchell. 2006. Financial Literacy and Planning: Implications for Retirement Wellbeing. Working Paper, Pension Research Council, Wharton School, University of Pennsylvania.

7. Lusardi.A, Mitceli, O.S. and Curto, V. (2010), "Financial Literacy among he Young", the Journal of Consumer Affairs, Vol. 44, No. 2.

8. Remund, David L. 2010. Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. Journal of Consumer Affairs, 44 (Summer): 276–295.

9. Tamimi, Hussein A. H. and Kalli, A. B. (2009), "Financial literacy and Investment decisions of UAE investors" The Journal of Risk Finance, Vol. 10 No.5.

10. Vitt, L. A., Anderson,C.A, and kent, J., Lyter, d., (2000), personal finance, Washington DC: fannie mae foundation.

11. Volpe, R. and Chen, H.L. (2006), “An analysis of the importance of personal finance topics and the level of knowledge possessed by working adults”, Financial Services Review, Vol. 15, pp. 81-98.