

## **Evaluating the Financial Literacy of Iranian Post Graduate Students: Introducing a New Tool**

**Mahmoud Moeinadin<sup>1</sup>, Ahmad Yaghoubjad<sup>2</sup>, Hashem Nikoumaram<sup>3</sup>, Hamidreza Vakilifard<sup>4</sup>**

<sup>1,3,4</sup>Department of Accounting, Science and Research Branch, Islamic Azad University, Tehran, Iran  
Ashrafee-e-Esfahani Highway, Hesarak Road, Zip code: 147789385  
Tehran, Iran

<sup>2</sup>Department of Accounting, North Tehran Branch, Islamic Azad University, Tehran, Iran  
Shahid Babai Highway, Shahid Sadughi Road, Tehran, Iran

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### **ABSTRACT**

Today due to the complexity of new business environment and diversity of services and products offered by credit institutions, achieving financial welfare requires good understanding of financial issues. Since a long time ago this needs is perceived in most modern societies and early 90's entitled as financial literacy and personal finance were proposed and over time its importance has increased. Today relative concepts in countries like America and England are considered as part of high school curriculum and various academic disciplines. In these countries, several non-profit institutions have undertaken the task of developing the financial literacy and conducting multiple tests to measure the progress of financial literacy in the country. In this study, initially it states the concept of financial literacy and fundamental theory and research background performed in this field. Later, using Delphi Fuzzy technique and according to 12 financial experts viewpoints a standard and native questionnaire was prepared to measure the financial literacy of Iranian students and the above mentioned questionnaire was used to measure the financial literacy of the community. Research results show the inadequacy of financial literacy of samples under study and significant relationship between some demographic variables such as age, gender, marital status, college education with financial literacy.

**KEYWORDS:** Financial literacy, personal finance, Iranian students, demographic characteristics, Delphi fuzzy.

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### **INTRODUCTION**

The National Foundation for Education Research in Britain defines financial literacy as the ability for informed judgment and effective decision on the use of monetary resources and its management [19]. After this project the financial literacy issue became a very important topic for research. Hence, researchers were concerned first in British and America and subsequently in countries like Australia, The Netherlands, Italy and Malaysia. This claim confirms numerous studies in this field and performance of numerous educational programs to promote financial literacy in various countries especially America. So that most of the States of this country has approved financial literacy content and in addition a Jump \$tart Coalition in America, the task is to develop and improve financial literacy and to test every two years and periodically report the results of financial literacy. In England the concept of personal finance (financial literacy) has been considered as part of national educational curriculum and enters into the national education standards [21]. The concept related to financial literacy can be discussed as personal finance. Personal finance is the important resource study to access the individual and household to financial success. The personal finance main issue includes financial management, budgeting, liquidity management, and use of credit cards, borrowing, important expenditures, risk management, investment, retirement plans, and purchase house and real estate plans [9]. Today it is important to understand the concept and skills related to financial literacy because the consumer is capable to survive in the modern society and resist to the diversity and complexity of products and available financial services. In recent decades it can be stated the importance to have financial skills, despite of the complicated financial market and intense competition between credit institutions to gain more market share, facilitating easier credit and loan access and other way to pay causes the pay increase to consume and rapid growth in debt level of individuals and families. Therefore, having financial literacy is a necessary basis for preventing and resolving financial issues and essential to have a successful healthy and happy life [1].

The issue of financial literacy and its study is important. Different research results shows that financial problems and economic pressure were part of it due to inadequacy of individual financial literacy which can be associated with the

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\*Corresponding Author: Mahmoud Moeinadin, Department of Accounting, Science and Research Branch, Islamic Azad University, Tehran, Iran. Ashrafee-e-Esfahani Highway, Hesarak Road, Zip code: 147789385 Tehran, Iran. Tel: +98-21-44869667 Fax: +98-21- 44869664 Email: mahmoudmoein@gmail.com

following heterogeneity: family enmity, harsh parental behavior, reducing the ability of youth to deal with problems of everyday life, increase abnormal behavior at community level, addiction to alcohol, evil violent behavior [8].

Understanding the concept of financial literacy is important for students because financial decision taken by them during academic period has an important impact on their financial situation after graduating from the university. In addition, their financial position in the university can affect their academic performance. Research done in this field shows one third of the students said that their financial situation has an impact on their ability to complete their academic course work [14]. so many studies confirm the role of family's economic factors, the living region and family's financial power that are function of financial literacy to continue the education [15]; but College students are the primary focus of the present study, since they are the future career and labor force contributors, and for which low savings and experiencing financial problems during college life have a significant effect on their present and future family, and career life [14].

The result of researches done on evaluating financial literacy in different countries of the world is interesting. For example, the research results conducted to evaluate the financial literacy of American students showed that financial literacy of students were inadequate and the weakest area was the investment knowledge of students. The financial literacy of non-business students, women, individuals below 30 years and students at lower levels were lower than the others [3]. Results of another study conducted to evaluate the financial literacy of students at Wollongong University of Australia indicated the acceptable financial literacy of students and having relationship between some of the student's demographic characteristic with their low financial literacy [1]. In another study, financial literacy was evaluated among the staff members of Human Science (Humanities) of New York University. The result of this study shows the inadequate financial literacy of the samples evaluated. The most important component in determining financial literacy was the individual education level [7]. In another study, Italian financial literacy was measured and their financial literacy level was compared with the Americans and other European countries. The research result showed that financial literacy of Italians was far lesser than Americans and other European countries. Also in this study, women had lesser financial literacy and educated individuals had higher financial literacy [17]. In a study conducted in Malaysia, the financial literacy of students was measured and their relationship evaluated with demographic characteristics. The research results showed that the average financial literacy of samples under study was less than 50 percent and this issue shows the inadequate financial literacy of Malaysian students. Also some of the demographic characteristics such as ethnicity, student residence and type of university have relationship with financial literacy [23]. Results of another study conducted with the purpose to evaluate the financial awareness level of Malaysian youth has shown that the financial literacy samples under study was more than average and financial literacy was related with entrepreneurial skills and age [18]. In another study, relationship of college education and financial literacy has been evaluated. The research results indicate a general lack of financial literacy in all colleges. In addition, financial literacy was related to type of college, demographic characteristic: age, gender and income [11].

In few other studies the impact of educational programs on financial literacy has been evaluated. For example, in a research impact of new educational methods has been studied based on change theory to promote the financial literacy of students in Hong Kong. The results showed that the mentioned method in promoting financial literacy and their lasting over time is effective [21]. In another study, effect of compiled program of financial education in various states of America on financial literacy scores of high school students was evaluated. In this study, significant difference between the financial literacy scores of the state students were not observed with compiled topics of financial literacy with other states. The reason for the appearance of this result was related by authors to the manner of employing and effectiveness of educational program in different States [26]. Another group of researchers evaluated the impact of personal finance education presented in high schools and Universities on investment knowledge and savings of American students. In their study, the average score of financial literacy of students was 5.6 out of 10. The research results showed that individuals who had participated in the personal finance course work at the University scored higher than others. Meanwhile, income, occupation and education level has a significant relationship with financial literacy where the financial literacy of men was more than women [22].

Despite special attention of some countries to the financial literacy issue, less attention has been given to this issue in Iran. In addition, due to the differences between financial and economic structure of the developed countries and using standard questionnaire of these countries is not suitable to measure the financial literacy of the Iranians. Therefore, the aim of this research is to plan the concept of financial literacy and provide the appropriate tools to measure it among students using financial expert's comments (with the help of Delphi Fuzzy method) and also measuring the financial literacy of postgraduate students using the above mentioned tool. The study was conducted in two separate studies. In the first study, other than to study the available theoretical resources and using standard questionnaire of other countries with regard to economic conditions and business patterns of Iran through the use of financial expert comments in Delphi format to provide a native questionnaire and to measure the financial literacy of

Iranian students. In the second study, the mentioned questionnaire is used as a tool to measure the financial literacy and using this financial literacy of Iranian students was evaluated (Case study: Postgraduate students). According to the international studies conducted in this area, in the second study two general hypotheses is proposed as follows:

H1: Iranian students are financially literate.

H2: Students demographic characteristic are related with their financial literacy.

## **2. The first study**

### **2.1. Research Methodology**

The research methodology with regard to functional aim and application strategy is descriptive and applicable. In this study, in order to provide a standard questionnaire to measure the financial literacy of students, initially a questionnaire comprising of 49 questions with four options is prepared. The questions used have been developed to measure the components of individual personal finance such as obtaining, savings, investing, spending, borrowing, insurance and retirement [12]. But due to the close relationship of part of these components the questionnaire questions is presented in three distinct parts, such as obtaining, saving and investing, spending and borrowing and risk cover (insurance and retirement) were each of this field is devoted with 23, 15 and 11 questions respectively. Standard questionnaire of Jump \$tart of America and other questionnaire used in similar studies in other countries was used to design the questions and localized based on Iran's business environment and also some questions discussed regarding Iran's special economic conditions (including inflation) and sent for evaluation to the selected expert opinions. The selected experts at this stage in addition of having Ph.D. degree in the field of finance or accounting also has valuable experience in the profession and 12 of them are selected on judgment bases and participate as the member of Delphi panel. The selected experts rates each of the first questionnaire questions in a range of three options (good, average, poor). Each question after passing various stages of Delphi Fuzzy achieves 'good' score from the experts which is used to prepare a standard financial literacy questionnaire. The results of this phase of study consists questionnaire of 25 questions with four options.

Then, the first part of the questionnaire of 10 questions concerning the demographic characteristic of the participants were added and finally a questionnaire comprising of 35 questions were prepared and used as a tool to collect necessary data for data analysis ( second study).

### **2.2. Algorithm of Delphi Fuzzy method**

The aim of Delphi method application is to secure access agreement of group of experts for a particular topic using questionnaire and survey of expert with regard to the feedback obtained from them.

The Delphi method, individual expert subjective data using statistical analysis is converted to objective data. When this method is used for multi-dimensional issue, multi-objective and complex decision making problems, repeated time consuming process of questions and answers to the obtained relative opinion is considered a major problem. Generally, this method has weaknesses such as high cost and maximum time for data collection. In order to overcome these weaknesses, the Delphi Fuzzy method was developed in 1980's by Kaufmann and Gupta [4]. Using Fuzzy numbers in Delphi Fuzzy method is appropriate because the world around us cannot divide the issues into two or more white and black category, but each issue is subjected in a range. In many cases, such as performance evaluation, satisfaction level, etc., experts are more convenient in using linguistic variables [13]. The application of Delphi Fuzzy method to decide issue where goals and parameters are not clear can lead to very significant results. The important characteristic of this method provides a flexible framework that covers many barriers related to lack of precision and accuracy [6].

In implementing the algorithm in Delphi Fuzzy method, usually experts present their opinions in the form of minimum value, possible value and maximum value (triangular fuzzy numbers). The mean of the experts and the mean differences of each expert are calculated and this information sent to the experts for obtaining their new comments. In the next phase, each expert based on data from previous phase offers new comments or edits its previous comments. This process continues until the mean of fuzzy numbers is stable enough. If the mean differences of the two phases are less than 0.20 the sufficient consensus about the question is achieved [4].

As experts in the Delphi process should select appropriate questions to evaluate financial literacy among the proposed 49 questions using variables with certain values would have difficulties in commenting. Therefore, using qualitative variables in terms of good, average and poor will solve this problem to some extent. The individual view relative to qualitative variables such as high or low is not the same. Experts because of different characteristic they have different mind and if the options are answered based on different mentality the variable analysis is worthless, but with a range of qualitative variables the experts with same mentality will answer the questions [13]. Therefore qualitative variables are defined as triangular fuzzy numbers

The possible values defined by triangular fuzzy numbers for good options (5, 7, 9), average options (3, 5, 7) and poor options (1, 3, 5).

**2.3. Fuzzy calculation**

In each stage of Delphi test, the average fuzzy for triangular fuzzy  $\tilde{A}_1, \tilde{A}_2, \dots, \tilde{A}_n$  is defined as follows [24].

$$A_m = \frac{\tilde{A}_1 + \tilde{A}_2 + \dots + \tilde{A}_n}{n} \tag{1}$$

In equation 1,  $A_i$  ( $a_i, b_i, c_i$ ) triangular fuzzy number is related to the individual  $i$  and  $\tilde{A}_m$  the mean fuzzy is related to each of the questions.

After estimating the mean fuzzy for the questionnaire in each step the difference of the average population for each expert is calculated using equation 2.

$$(A_1^m - A_1^i, B_1^m - B_1^i, C_1^m - C_1^i) \tag{2}$$

In equation 2,  $A_1^m, B_1^m, C_1^m$  is the lower, middle and upper limit of mean triangular fuzzy number respectively related to each question.  $A_1^i, B_1^i, C_1^i$  is the lower, middle and upper limits related to individual  $i$  respectively.

In the next step, mean population in the previous step and differences of each expert from the mean population is provided to him/her and again each individual with respect to related difference answers the questions. At this step, individual can adjust his/her comments or repeat the comments of the previous step. Now, the mean fuzzy is again calculated for the new stage and the average difference of the two stages is calculated for each question. If the average difference of the two stages is less than 0.20 (calculated using equation 3) sufficient consensus is achieved for that question. This stage continues until the time to achieve sufficient consensus.

$$S(\tilde{N}_i, \tilde{N}_j) = \frac{(a_1 + 2a_2 + a_3) - (b_1 + 2b_2 + b_3)}{4(B_2 - B_1)} \tag{3}$$

In equation 3,  $B_2$  is the largest and  $B_1$  the smallest limit between means of the two stages. Also  $a_1, a_2, a_3$  are the lower, middle and upper limits related to mean of each question in the previous stage and  $b_1, b_2, b_3$  are the lower, middle and upper limits related to mean of new stage.

**2.4. Result of Delphi Fuzzy test**

**Table 1: Hidden concepts and issues of selected questions**

Questions	Hidden concepts and issues
1	Effect of inflation on purchasing power
2	The value added tax
3	Short term saving funds
4	Understanding bank deposit interest
5	Effects of inflation on various social groups
6	Investment to maintain purchasing power during inflationary conditions.
7	Understanding of wages tax based on exemption
8	Strategies to reduce risk while investing in stock
9	Calculation of profit (loss) in investment of stock.
10	Effect of inflation on the required rate of return.
11	The effect of compound interest on saving balance.
12	Use of debt to maintain purchasing power in inflationary conditions.
13	The difference interest rate of bank plans depends on various activities.
14	Identifying the ability of ATM.
15	Effect of bad account on the individual credit record.
16	Understand the options that have no restrictions on the ability to spend.
17	Cheque from the business Act perspective.
18	Recognizing credit card.
19	Compensatory balance role in increasing the cost and loan leakage.
20	Select the best solution between rent or mortgage of house.
21	Identifying appropriate insurance coverage for different jobs.
22	Base salary during retirement.
23	Understanding of compulsory insurance.
24	Identifying the most important classes of life insurance needs.
25	Insurance role of military service in compilation of retirement records.

According to fuzzy calculation performed the expert opinions for all the raised questions during the two stages of Delphi implementation was less than 0.20. Therefore, the implementation of Delphi method was stopped and 25 questions from the last stage of Delphi method implementation (second stage) has achieved good scores (average fuzzy score in the range of triangular fuzzy numbers was almost 5, 7, 9) as the selected questions of experts was used to prepare the final questionnaire. The contribution of each of the three areas: obtaining, saving and investing had 12 questions (question 1 to 12), spending and borrowing had 8 questions (questions 13 to 20) and insurance and retirement had 5 questions (questions 21 to 25) respectively. Because the table related to the counted votes of experts at different stages and average table of expert’s opinions is not presented and the hidden concepts and issues in the selected questions are presented in table 1 above.

**3. The second study**

**3.1. Research methodology**

In second study, using the tools provided in the first study, financial literacy of 357 postgraduate students in Iranian universities and using random cluster method selected from five provinces has been measured. The questionnaire was distributed in the stage in the presence of authors and the reward to participate in the test and complete the questionnaire and to send the participant points from the financial literacy test and also a set of useful information applicable in financial literacy domain to their emails (optional to the participants).

General hypothesis raised in this study in order to fulfill the overall two objectives is proposed and tested: to study the adequacy or inadequacy of financial literacy of postgraduate students in Iran and also the relationship between demographic characteristic and their financial literacy level.

In earlier research done in this area [3, 20, and 5] the percentage of the achieved mean scores is classified as follows: (1) more than 80 percent, (2) 60 percent to 79 percent, (3) less than 60 percent. The first group represents high level of knowledge, the second group represents the average level (acceptable) and the third group represents the low level of knowledge. Therefore, in this study the required minimum score is 60 for the adequacy of financial literacy.

One sample T-test is used to study the first hypothesis. Therefore, average score for the financial literacy of students is based on 100 measurements, totally and breakdown of the three areas has been compared with grade 60.

To determine the presence of relationship between demographic characteristic with financial literacy of students, two sample t-test, ANOVA and LSD test were used. Thus, in the case of binary variables such as gender and marital status the two sample t-test is used and for several variables such as age and Education College the ANOVA and LSD test were used. In both methods, there exist differences in the average financial literacy score of students in different demographic groups has been tested at 95 percent confidence level.

**3.2. Data analysis**

In this section, initially descriptive statistics related to demographic characteristic of samples tested are presented and subsequently the hypothesis testing results are described.

**3.2.1. Descriptive statistics**

Table 2 summarizes the descriptive statistics related to participant’s demographic characteristic.

As it is clear from the table most students are in the age range of 23 to 30 years (75 percent) and most of them are men (57 percent).

**Table 2: Summary of Descriptive statistics**

Demographic characteristic	Situation	Amount	Percent
<b>Age</b>	Less than 22 years	4	1.1
	22 – 25 years	131	36.7
	26 – 30 years	138	38.7
	More than 30 years	72	20.2
	Missing data	12	3.3
<b>Gender</b>	Male	204	57
	Female	153	43
	Missing data	-	0
<b>Marital status</b>	Married	129	36
	Single	225	63
	Missing data	3	1
<b>Employment status</b>	Employed	220	62
	Unemployed	133	37
	Missing data	4	1

<b>Activity domain</b>	Financial	118	33
	Non-financial	99	28
	Missing data	140	39
<b>Occupation status</b>	Employee	145	41
	Independent-individual	36	10
	Independent – entrepreneur	25	7
	Missing data	151	42
<b>Education field high school level</b>	Mathematic – physic	105	29.5
	Experimental science	112	31.5
	Human science	72	20
	Technical school	68	19
	Missing data	-	-
<b>College education</b>	Accounting and management	115	32
	Human science – others	81	23
	Technical and engineering	94	26
	Basic science	36	10
	Medical	31	9
	Missing data	-	-
<b>Monthly income level of household</b>	< 400 \$	63	18
	401 – 600 \$	86	24
	601 – 800 \$	94	26
	801 – 1200 \$	62	17
	1201 – 1600 \$	33	6.5
	> 1600 \$	20	6
	Missing data	9	2.5
<b>Independent or non-independent finance</b>	Independent	178	50
	Non-independent	179	50
	Missing data	-	-

Also, 63 percent are single and the remaining married. Approximately 62 percent of them are employed and among them 118 person are actively employed in banking and finance and the rest are non-financial workers. Among the employed, 61 individual work privately from which 25 individuals are employer and remaining work individually and 145 individuals from the employed are employee of government departments and companies. Among different colleges most of the participants are related to accounting, management and economics (115 individual's equivalent to 32 percent) because most of the students are enrolled in these courses. In high school most number of participants is in mathematics and science. More than 58 percent of the participant's monthly household income is less than 1000 dollars. Finally, half of the students are financially independent, i.e. do not receive any help from parents and other affiliated persons and institutional support and half of these are financially dependent.

### 3.2.2. Hypothesis testing

The first hypothesis test of this study is the adequacy of financial literacy of post graduate students in Iran. The mean total score of financial literacy and also mean score of each three target area based on 100 measurements is compared with the grade 60 which is equivalent to sufficient points. At this stage, one sample t-test is used. The result of this hypothesis test is shown in table 3 and 4 respectively.

As shown in table 4, significant level shows that except risk coverage (insurance and retirement) the total average of financial literacy score of students and also other relevant area is less than 60. This shows that the financial literacy of students is not enough to deal with the future financial problems. Among the following three sub-areas the financial literacy with lowest score participants is related to spending and borrowing (mean score 45.7) and maximum score is related to insurance and retirement.

The second main hypothesis of this research is the relationship of the selected demographic characteristic sample and their financial literacy level and using the test discussed in the methodology section was analyzed. Summary of this hypothesis is presented in table 5.

The data presented in table 5 shows the financial literacy of students has a significant relationship with all demographic characteristic except household income level.

**Table 3: descriptive statistics of participant score**

	N	Mean	Std. Deviation	Std. Error Mean
Total score	357	54.1737	22.93770	1.21399
obtaining, savings and investing	357	56.6760	24.83120	1.31421
Spending and borrowing	357	45.7283	25.24727	1.33623
Risk Coverage	357	61.6807	29.97150	1.58626

**Table 4: Comparison of student scores with grade 60**

	Test value = 60					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
<b>Total score</b>	-4.799	356	.000	-5.82633	-8.2138	-3.4388
<b>obtaining, savings and investing</b>	-2.529	356	.012	-3.32400	-5.9086	-0.7394
<b>Spending and borrowing</b>	-10.681	356	.000	-14.27171	-16.8996	-11.6438
<b>Risk coverage</b>	1.060	356	.290	1.68067	-1.4389	4.8003

**Table 5: Analysis result summary of the second hypothesis**

Variable	Status	Mean score	t or f statistic	Degree of freedom	Sig.	Result	Result interpretation
<b>Gender</b>	Male	57.5	3.215	355	0.001	There exist a significant relation between gender and financial literacy	Financial literacy of men is more than the women
	Female	49.7					
<b>Marital status</b>	Married	58.6	-2.802	352	0.005	There exist a significant relation between marital status and financial literacy	Financial literacy of married is more than the single
	Single	51.5					
<b>Employment status</b>	Employed	61.8	-7.494	351	0.000	There exist a significant relation between employment status and financial literacy	Financial literacy of the employed is more than the un-employed
	Un-employed	44.6					
<b>Employment domain (financial or non-financial)</b>	Financial	66.5	5.522	215	0.000	There exist a significant relation between employment domain and financial literacy	Individual with financial employment their financial literacy is more
	Non-financial	51.5					
<b>Financial independence or dependence</b>	Independent	59	4.079	355	0.000	There exist a significant relation between financial independence and financial literacy	Individual with financial independence is more with financial literacy
	Dependent	49.3					
<b>Age</b>	< 22 years	26	3.734	3	0.005	There exist a significant relation between age and financial literacy	With the increase in age there is an increase in financial literacy
	23 – 25	53.8					
	26 – 30	52.6					
	> 30 years	61.7					
<b>Occupation status</b>	Independent - entrepreneur	53.4	6.523	2	0.002	There exist a significant relation between occupation status and financial literacy	Financial literacy is more with the employee
	Independent - individual	51.1					
	Employee	64					
<b>College education</b>	Accounting and management	60.9	12.33	4	0.000	There exist a significant relation between college education and financial literacy	Financial literacy of students of accounting and management is more
	Human science-other	49.4					
	Basic science	37					
	Technical and engineering	46.9					
<b>High school degree</b>	Mathematic-physic	70	5.347	3	0.001	There exist a significant relation between high school degree and financial literacy	Financial literacy is more with mathematics
	Experimental science	54.2					
	Human science	51					
	Technical school	52.82					
<b>Monthly household income level</b>	< 400 \$	51.9	0.652	5	0.66	There exist no significant relation between household income level and financial literacy	--
	401 – 600 \$	56.2					
	601 – 800 \$	54.5					
	801 – 1200 \$	55.6					
	1201 – 1600 \$	57					
	> 1600 \$	48.2					

**3.2.3. Conclusion and discussion**

The results of the first hypothesis show the inadequate financial literacy of the population under study. One of the reasons for the present weakness is the failure to provide financial literacy concept in university curriculum.

Currently according to the studies done in the Universities of Iran there is no course under this title. The issues related to personal finance is not taught to students in lower grade. Therefore, appearance of this result is not out of question. Another reason for the weakness is the less age of the participants (75 percent less than 30 years). Most students are in their early stages of financial life cycle and at this stage are involved less in financial issues such as investment, borrowing and retirement. Therefore do not have the necessary experience to deal with financial issues and because of this reason do not learn these issues through academic education thus they lack in sufficient knowledge.

The study of the relationship of demographic characteristic and financial literacy of students showed that the financial literacy of man is more than women. Maybe the reason for this is due to the less involvement of women in financial issues. This result of Dvorak and Henley, Peng & et al, Nga & et al, Cheng and Volpe studies is consistent but not consistent with the research result of Sabri & et al. Comparison of married and unmarried average score showed that the financial literacy is more with married person. The cause of this result can be interpreted that married persons because of entering into a joint life has more financial independence and more involved with financial issues. This issue forces them to learn more about financial concept. Employment relationship has been evaluated in different ways with financial literacy and different results have been achieved. The presented data shows that financial literacy of employed students is more than un-employed students, because these groups of people due to passing through their job task are more involved with their financial issues and obviously this promotes their financial literacy. The groups of students who are working in finance and banking have relative higher financial literacy than other students. These people because of working in financial affairs have gained more knowledge and experience. In regard to occupational status the employed person are classified into three groups where the financial literacy of employees (dependent) is more than self-employed person (employer and individual) respectively. The occurrence of this result is to some extent acceptable because it is expected that self-employed person have more financial ability. But the reason for this is due to the large number of bank employees and financial institutions involved in accounting and management education and the presence of people in group of employees has been the cause of this result. The relationship between employment status and financial literacy were approved in the study of Peng et al.

The age variable is also related with financial literacy. The result shows that with increase in the age of students except age group of 26 – 30 years there is increase in the financial literacy scores. These results suggest that to achieve life experience will promote financial literacy. In fact, because financial literacy concept is not taught in Universities of Iran it can be said that students over time and in dealing with issues and problems of life with trial and error will learn the new financial issues and perhaps pay a heavy price for them. Research results about the effect of age on financial literacy confirms with Hanna & et al and Cheng and Volpe, but does not confirm with the research work of Dvorak and Hanley and Nga & et al. Financial independence is another demographic variable affecting the student's financial literacy. Students who were financially independent and did not receive any help from parents and others had more financial literacy than the non-independent financial individuals who received less help. High school degree is one of the demographic variables that in this study confirm the impact on the financial literacy of students. The results showed that the financial literacy of high school students who majored in mathematics and physics were more than other students. College education has a relationship with financial literacy of students. The highest level of financial literacy is associated to the college students of accounting, economics and management and the lowest level of financial literacy is associated to the medical college student. The highest level of financial literacy of student of management and finance is because of passing the related courses but about the lowest level of financial literacy among medical students need to be further researched. Relationship of college education and financial literacy of students is approved in Dvorak and Hanley research. In regard to the confirmation of inadequate financial literacy in the overall population testing and with respect to the role of financial skills in personal and social life which has been confirmed in several researches it is recommended that strategies for improving financial literacy at student community level in Iran is under the influence of higher education organization.

As results have shown that the lowest score of students are in spending and borrowing. It seems that student's weakness in this area can face with irreversible damage. Therefore, it is recommended to educational administrators and other responsible institutions to pay special attention in this area and taking necessary measures to inform young people and to promote their ability in this domain. It is recommended to educational administrators to use the experiences of developed countries in financial literacy education and establishment of a personal finance Iranian model in high school and even at lower levels. Opportunities on future studies in the field of financial literacy in Iran is recommended that a number of academic research to provide a financial literacy standard questionnaire among various groups of society including workers, employees, employers, general public, students, etc. In addition, using the introduced model in this study the financial literacy of students can be measured and research on its relation with various issues of psychology and sociology such as divorce and crime.

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