International Business Management 10 (Special Issue 5): 6669-6677, 2016
ISSN: 1993-5250

Self-Control, Financial Literacy and Consumer Over-Indebtedness (Case Study: Yazd Tire Industries Complex)

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Abstract: This study aims to assess the level of financial literacy, financial literacy and self-control workers and the effect on consumers and the efficacy Egypt more debt demographic characteristics (demographic) they raised the level of financial literacy and implemented. The population of the research company personnel Yazd Tire and sampling of simple random sampling using Cochran's formula the sample consisted of 170 employees and the company is after repeated follow-up questionnaires, reference and research, the number of 107 valid questionnaires were collected number. This study is comprised of three main hypotheses using two independent samples t-test and Analysis of Variance (ANOVA) and to assess the normality assumption test data Kolmogrov-Smirnov (K-S) and test for autocorrelation statistics durbin-Watson is used. In examining the various hypotheses results indicate that low financial literacy workers Hstndama the field of financial literacy groups, including business and savings, spending and borrowing insurance and pensions are literate. The effect of self-control over consumer debt is negative or reverse the increasing amount of self-control over the amount of consumer debt reduction and reduce the amount of self-control over the amount of consumer debt increases.

Key words: Financial literacy, self-control, consumer over-indebtedness, demographic characteristics, ANOVA

INTRODUCTION

Today, due to the complexity of new business environments and diversity of the offered services and products by credit institutions, financial prosperity requires proper understanding financial issues and matters. From long time ago, this has been understood in most modern societies and raised with titles such as financial literacy and personal finance from the early of 1990s. During time, its importance has been increased so that today, its related concepts are considered as part of high school curriculum and different academic disciplines in countries like the US and UK. In these countries, many non-profit foundations have undertaken to develop financial literacy and measure progress of financial literacy in their country by performing numerous tests. Therefore, it can be acknowledged that financial literacy is a necessary basis to prevent and resolve financial matters and in turn it is vital to have a successful, healthy and happy life (Moeinadin, 2011).

Financial foundation in education of England has defined financial literacy as the ability of the informed judge and effective decision-making to use monetary and management resources. After introducing this concept, financial literacy became a very important research topic. This concept was firstly studied and reviewed by many researchers in England (Schagen and Lines, 1996) and the US (Danes *et al*., 1999; Hilgert *et al*., 2003; Chen and Volpe, 1998) then it was considered in other countries around the world including Australia, Germany, Italy, the Netherlands, Portugal, Malaysia and Hong Kong. Conducting many studies on financial literacy, implementing educational programs in this regard and increasing access to financial information confirm this claim. Self-control (self-monitoring) is another concept that have been investigated in relation individual's research. Snyder (1974) developed the concept of self-control for the first time; it means that how a person is flexible or stable in his position (Kaushal and Kwantes, 2006).

Lack of self-control and financial literacy has a positive correlation with non-payment, consumer credit and financial statistics. Consumers with self-control problems use fast but expensive credit access to purchase credit products such as store cards and daily loans. Also consumers with self-control problems suffer from revenue shocks-decline in credit and durable unpredictable cost items which this suggests that lack of self-control will lead to exposure various risks such as over-indebtedness and eventually, bankruptcy. Therefore, by considering the above-mentioned matters and growing importance of topics related to financial literacy as well as its dramatic

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effects on financial well-being of individuals and households, we understand the role of self-control compared with financial knowledge to study consumer's debt. However, this study examines the relationship between financial literacy and self-control with over-indebtedness of consumers that the debt is due to provide credit products. Totally, the main question of this study is whether there is a relationship between self-control and financial literacy with over-indebtedness of consumers (employees) in Yazd Tire Industries Complex.

The research theoretical bases

Financial literacy and personal finance planning: Financial literacy means individual's ability to access data, analyze and manage their personal financial situation so that affect their financial well-being. This concept represents the ability to collect data in a way that distinguishes different financial options. Fiscal and monetary issues as well as planning and responding to events affecting the occurred everyday financial decisions in economy are also proposed in the definition format. Personal finance planning is management process of financial resources to achieve personal and economic satisfaction. This planning process helps people to control their financial situations. Each person, family or household has different financial situation and specific economic activity; then it must have special planning to meet basic needs and ideals. A comprehensive financial plan will enhance the quality of life and their life satisfaction by reducing uncertainty on the future needs and financial resources. Every day, people decide hundred decisions. Most decisions are simple with little consequences, while some are complex with long-term effects on their personal and financial situations. To achieve the main objective of the research its first main hypothesis can be proposed as the following:

- H_1: Consumers are literate financially

Components of personal finance planning: To develop and implement a good personal finance planning successfully, people should be familiar with its components. Components of personal finance planning are briefly described in the following. In the personal finance planning, the second main hypothesis of the research can be proposed as the following due to consider characteristics of each person:

- H_2: Demographic variables affect consumer's financial literacy

Education (obtain finance resources): Individuals can obtain their required finance from research (employment), investment or trading. Obtaining finance resource is base of financial planning because these resources are used in all financial activities.

Planning: In addition to savings, the planned consumption is the key to achieve the future financial goals and immunity. Trying to forecast costs and proper financial decisions will help increasing financial resources. Today, in the developed countries, it has been specifically considered and people are trained and encouraged to have a systematic planning. There are also professional individuals and groups that play as financial planners.

Saving: Long-term financial security requires a systematic saving plan for emergencies, paying the unexpected bills, replacing important items, buying necessities, education etc. When people start a substantial program for saving, they can save their additional funds in a place with growing capability. Here, we should distinguish the short-term savings (with high liquidity) and long-term savings. The saved funds should be available for current needs of family and have high liquidity.

Borrowing: Control over credit purchase is associated financial objectives. Overuse or underuse credit terms may lead to a condition that individual's financial debt is more than available resources to pay the debt. People can prevent declaring bankruptcy by reasonable consumption or logical borrowing timely.

Spending: Remember that financial planning is not to prevent enjoyable life but helps you to achieve what you need. In most cases, people make purchase regardless of financial consequences. People's incontinent and inconsiderable purchases put them into financial troubles. To solve this problem, it is necessary that they maintain their living expenses and other financial needs in a financial plan partly.

Risk management (insurance): Another element of personal finance planning is adequate insurance coverage. There are usually considered certain types of insurance coverage in financial planning. For example, the number of persons with disability or sick in 50 year old is more than the number of people who died at this age, so these people need disability insurance rather than life insurance.

Investment: Although, there are many types of investment instruments but people are investing for two important goals. Those who are interested in current income choose investments that pay regular interests. In contrast, investors who are seeking long-term growth will invest in stocks, mutual funds, real estate and other investments that increase the future value of their investment.

Retirement: Most people do not know that certainly retirement plan is the most expensive purchase in their life. Today, most people pay amounts for retirement in the future. The most important reason for retirement is that people spend just 15, 20 or 30 year of their life to do activities and post-retirement years may be even longer than duration of their activities which it shows the necessity of planning for retirement more than ever (Moeinadin, 2011). By discussing on components of personal finance planning and taking into account demographic characteristics of each person, the second main hypothesis of the research can be proposed as the following sub-hypotheses:

- $H_{2.1}$: Consumer's age influences their financial literacy
- $H_{2.2}$: Consumer's gender influences their financial literacy
- $H_{2.3}$: Consumer's marital status influences their financial literacy
- $H_{2.4}$: Consumer's education influences their financial literacy
- $H_{2.5}$: Household's monthly income level influences their financial literacy
- $H_{2.6}$: Consumer's father education level influences their financial literacy
- $H_{2.7}$: Consumer's mother education level influences their financial literacy

Self-control: Self-control (self-monitoring) is another concept that have been investigated in relation to people work. Snyder (1974) developed the concept of self-control for the first time it means that how a person is flexible or stable in his position (Kaushal and Kwantes, 2006). Snyder states "in a general discussion, people are divided into two categories people with high self-control and people with low self-control that each category has special features (Kjeldal, 2003). Some people are sensitive to social situations and set out their appearance in accordance with the common position. They are called high self-control. In contrast, there are people with low self-control who tend to express their thoughts and feelings rather than organizing them by considering position" (Snyder, 1974). Several studies have examined the effects of self-control at workplace and have concluded that people with high self-control have high life quality and behavioral health. They are faced with less behavioral problems in their work. The people have the most social skills, so they select jobs like sales and management positions (Day and Kilduff, 2003). They found a relationship between self-control and citizenship behavior in which supervisors with high self-control are able to better organize their citizenship behavior and guide subordinates. Therefore, by considering the financial literacy issue, there can be raised:

- H_3: Consumer's financial literacy affects their financial literacy

Over-indebtedness: The bankruptcy is state of a businessman or corporate that unable to pay their debts and carry out their trade treaties. The bankruptcy and its provisions merely include businessman and if ordinary people are not able to pay their debts, they will be called insolvent (Salehian, 2013). According to the definition of Altman, bankruptcy occurs when a company is unable to pay its debts and therefore, fails to continue its business activities. Bankruptcy occurs when a business unit stops its operations due to major losses and insufficient cash flow to repay debt principal and its interest. He considers financial and economic problems as the main reason for bankruptcy. Considering the theoretical foundations of financial literacy and self-control feature, the following can be raised:

- H_4: Consumer's financial literacy affects their over indebtedness
- H_5: Consumer's self-control affects their over indebtedness

Reviewing the research history: In their study, Hanna *et al.* (2010) investigated the relationship between student's educational college with their financial literacy. They compared financial literacy of students in three schools business, humanities and education. They carried out their comparison at levels of total financial literacy and its important areas such as investment, tax, credit, debt and insurance. The research main result showed that generally students at all studied schools had low level financial literacy but there was no significant difference between financial literacy of students in different schools so that financial literacy of students in higher education of business school was higher than faculties of humanities and education in all areas statistically; of course, this result was expectable and had been observed in previous studies. In an article titled "Financial Literacy and Participation in the Stock Market", Rooij *et al.* (2011) provided two specific models to measure financial literacy and its relation with participating in stock exchange by conducting survey of households. They found that most of respondents understand basic information and financial concepts such as interest rates, inflation and time value of money. In addition, many respondents don't know the difference between bonds and stocks, the relationship between bond prices and interest rates and risk diversification principles. Most importantly, they found that financial literacy affects financial investment decision and lack of understanding economics and finance is a deterrent factor to stock ownership.

In their study, Alessie *et al.* (2011) examined the relationship between financial literacy and planning of retirement programs in the Netherlands. They used a comprehensive questionnaire to measure their financial literacy and evaluate their retirement programs. The main results of regression model showed a significant positive correlation between financial knowledge and planning for retirement programs in other words, people who have more financial literacy are more likely to have plans for their retirement. Among other results of this study, we can suggest that a large number of the Netherland population have no specific plans for their retirement.

In a research, Sohn *et al.* (2012) examined the relationship between social financial factors, financial experiences, money attitudes and demographic characteristics with financial literacy of Korean teenagers. Its data were collected using a questionnaire. The research results indicate that people who select media as their primary social financial factors and those who have a bank account, they have exhibited higher levels of financial literacy. Among the sample, those who consider money as a good commodity for reward of efforts have higher levels of financial literacy, comparing with people who have no understanding of money. Kim and Garman (2003) conducted a study to examine the relationship between financial concerns with the rate of employee absenteeism. Their research results showed that financial concerns have a negative impact on organizational commitment and leads to more absence of employees. Moreover, financial concerns threaten mental health of individuals and reduce their organizational commitment that they increase employee absenteeism in workplace. Pruzinsky and Mihalcova (2014) conduced a research to examine financial literacy of students in Slovakia University using a questionnaire containing 22 questions consisting 16 questions on financial literacy, savings, debt, insurance and investment and six questions on demographic. The research results show that level of financial literacy of the students is above average and according to the analysis, it was proved that students should try on the current strategy of EU and identifying a vision for the future decade based on economic growth drive (smart growth, sustainable growth and inclusive growth).

MATERIALS AND METHODS

Method type: The research method is applicable objectively because its results can be applied in practice. In terms of the implementation way, the present research is a descriptive-correlation one because it examines the status quo of society without manipulation on the one hand and uses regression to examine the relationship between variables. From data nature perspective, the research is considered as post-event research.

Sample and community: The study population consisted of all personnel working in Yazd Tire Co. the used sampling method in this study is the randomly sampling using the Cochran's formula. According to determine the population size (n = 1300) the considered sampling included 170 personnel after calculation. After distributing questionnaires and repeated follow-up, there were collected 107 questionnaires.

Data collection: In this study, data collection method related to the research literature is library method including books, various articles and local and foreign publications. The library method was used to collect data in this study. The required information for the research literature was collected through Persian and Latin books, professional journals and articles extracted from the internet on 2015. Its required data was collected using questionnaire too. The research questionnaire consists of four sections that have been prepared to achieve its objectives. The first section includes demographic data; the second section includes financial literacy questions in fields of business, savings, investment expend and borrow- insurance and retirement that measure the level of financial literacy the third and fourth sections include questions to assess and measure self-control and over-indebtedness of consumers, respectively. The questionnaire validity was achieved using opinions of the supervisors and several experts in the field to ensure right items that can measure financial literacy, self-control and over-indebtedness of consumers in the target population. Since there is one standard option in four-choice questionnaires and this options cannot be changed, so the used questionnaire in this study does not require reliability test (Moeinadin, 2011). Questions about self-control and over-indebtedness of consumers lack measuring validity and reliability due to number of answers and their incompatible measurement criteria.

Data analysis: After collecting, the data was entered in the Excel Software. There was also used SPSS Software to classify and analyze data.

RESULTS AND DISCUSSION

Variable's normality test: At this stage, we study the results of Kolmogorov-Smirnov test on any dependent

Table 1: Results of variable's normality test

Descriptions	Business and savings	Spending and borrowing	Insurance and pension	Overall literacy	Over-indebtedness	Self-control
Number	107	107	107	107	107	107
Normal parameters						
Ave	55.0748	51.7664	80.5607	59.0280	12.1963	8.3925
SD	22.05598	22.37611	24.02168	18.73623	5.55154	1.49058
Most extreme differences						
Absolute	0.107	0.113	0.258	0.101	0.118	0.135
Positive	0.107	0.111	0.209	0.086	0.118	0.127
Negative	-0.107	-0.113	-0.258	-0.101	-0.072	0-0.135
Kolmogorov-Smirnov						
Z-test	1.102	1.173	1.537	1.049	1.221	1.395
Significance level	0.176	0.128	0.054	0.221	0.102	0.051

Table 2: Results of average's comparison test

Description	t-statistic	df	Sig. level
Total literacy	0.537	106	0.593
Business and savings	-2.310	106	0.023
Spending and borrowing	-3.806	106	0.000
Insurance and pension	8.854	106	0.000

Table 3: Results of ratio test in number ratio

	>60		<60			
Description	Number	Ratio	Number	Ratio	Ratio of test case	Sig. level
Total literacy	48	0.45	59	0.55	0.5	0.334
Business and savings	39	0.36	68	0.64	0.5	0.007
Spending and borrowing	62	0.58	45	0.42	0.5	0.049
Insurance and pension	80	0.75	27	0.25	0.5	0.000

and independent variables and then select appropriate tests to examine verify and untruth the hypothesis based on the results (Table 1). According to the results of Table 1 as the value of significance level is greater than error value (0.05) for all components, therefore, the variables have been distributed normally.

Hypotheses test and analyzing results

The first hypothesis (H_1): This hypothesis is proposed to evaluate the adequacy of financial literacy of consumers that has been analyzed by two distinct methods using statistical techniques to compare average and ratio:

The first method: comparing averages: Table 2 shows statistical data associated with this hypothesis. As is evident from the provided information in Table 2, significance level (Sig.) in overall level of financial literacy is >0.05, so it can be said that financial literacy consumers is not enough in other words, the consumers are less financially literate. But its significant level (Sig.) is <0.05 in fields of business and savings, spending and borrowing and insurance and pension. Therefore, it can be said that financial literacy of consumers is enough in fields of sub-financial literacy in other words, the consumers are financially literate in fields of business and savings, spending and borrowing and insurance and pension.

The second method: using ratio test: Table 3 shows statistical data associated with this hypothesis. As seen, in this case on overall level of financial literacy, significant level (Sig.) is >0.05. It means that >50% of consumers have scores <60 in financial literacy. In fact, the ration estimation in overall level is only 0.45 that means about 45% of consumers have passing grade in financial literacy. But its significant level (Sig.) is <0.05 in fields of business and savings (36%), spending and borrowing (58%) and insurance and pension (75%). Of course, it can be said that almost 50% of cases have received a passing grade. So, it can be argued that financial literacy of consumers in fields of sub-financial literacy is enough.

The second main hypothesis (H_2): The second main hypothesis has been proposed and tested about the impact of the selected demographic characteristics on financial literacy of consumers. Table 4 summarizes results of each sub-hypothesis of the second main hypothesis.

The third main hypothesis (H_3): The multivariate regression method was used to test this hypothesis. The following Table shows the analysis results. Given that the Durbin-Watson statistic is at standard distance of 1.5-2.5, therefore, it can be resulted independence of remaining (Table 5).

The entered variables in the regression equation are main core of regression analysis that has been shown in Table. The model adjusted coefficient of determination expresses degree of relevance of independent variables with dependent variables (consumer's self-control). According to Table 5, the model adjusted coefficient of determination is 0.26. So, the model explains 26% of changes in dependent variable averagely. According to

Table 4: Summarizes of sub-hypotheses in the second main hypothesis

	F-statistics			df			Sig.			Results			
Variables	Business and savings	Spending and borrowing	Insurance and pension	Business and savings	Spending and borrowing	Insurance and pension	Business and savings	Spending and borrowing	Insurance and pension	Business and savings	Spending and borrowing	Insurance and pension	Total
Age	4.971	0.169	2.275	2	2	2.00	0.068	0.009	0.845	Confirm	Reject	Reject	Reject
Gender	1.041	-0.195	-1.343	105	105	105.0	0.003	0.846	0.092	Reject	Reject	Reject	Reject
Married	-2.172	-1.203	-2.646	105	105	16.11	0.032	0.232	0.018	Confirm	Reject	Confirm	Confirm
Grade	5.413	5.025	1.031	3	3	3.00	0.002	0.003	0.382	Confirm	Confirm	Reject	Confirm
Monthly household income	6.812	2.320	1.691	5	5	5.00	0.000	0.041	0.134	Confirm	Confirm	Reject	Confirm
Paternal education level	1.21	0.711	1.444	4	4	4.00	0.304	0.584	0.217	Reject	Reject	Reject	Reject
Maternal education level	1.045	1.801	0.466	4	4	4.00	0.383	0.126	0.761	Reject	Reject	Reject	Reject

Table 5: Results of the third main hypothesis

Variables	Non-standard coefficients (B)	SE	Standardized coefficients (β)	t-statistic	Possibility (Sig.)
Model fixed value	8.416	0.534		15.769	0.000
Business and savings	2.010	0.408	0.147	5.1960	0.034
Spending and borrowing	0.004	0.008	0.067	0.5410	0.590
Insurance and pension	0-0.010	0.007	0-0.160	0-1.422	0.158

The effect of financial literacy components on self-control of consumers. Coefficient of determination, 0.32; The adjusted coefficient of determination, 26 Durbin Watson statistic, 1.790; F-statistic, 7.145; Possibility, 0

Table 6: Results of the fourth main hypothesis

Variables	Non-standard coefficients (B)	SE	Standardized coefficients (β)	t-statistic	Possibility (Sig.)
Model fixed value	12.05	2.018		5.973	000.0
Business and savings	-0.016	0.031	-0.064	-0.510	0.611
Spending and borrowing	-6.004	0.031	-0.016	-4.127	0.009
Insurance and pension	0.010	0.026	0.044	0.386	0.700

The effect of financial literacy components on over-indebtedness of consumers. Coefficient of determination, 0.29; The adjusted coefficient of determination, 0.2; Durbin-Watson statistic, 1.836; F-statistic, 9.111; Possibility, 0

test results possibility model of the variables, variable of business literacy and savings has possibility <0.05 so this variable is significant at confidence level of 95% in the model but variables of spending and borrowing literacy and insurance and pension have possibility <0.05, so the variables are not significant at confidence level of 95% in the model. Therefore, given the significance of business and savings variable that is the main hypothesis among components of financial literacy to approve or reject the hypothesis, it can be claimed that business literacy and savings variable affects self-control of consumers. On the other hand, coefficient of business literacy and savings variable is positive in the model. This means that business literacy and savings variable has a positive or direct impact on self-control of consumers. In other words, level of self-control of consumers will be increased by increasing business literacy and savings and vice versa.

The fourth main hypothesis (H_4): The multivariate regression method was used to test this hypothesis. The following Table shows the analysis results. Given that the Durbin-Watson statistic is at standard distance of 1.5-2.5, therefore it can be resulted independence of remaining. The entered variables in the regression equation are main core of regression analysis that has been shown in Table 6. The model adjusted coefficient of determination expresses degree of relevance of independent variables with dependent variables (over-indebtedness of consumers). According to Table 6, the model adjusted coefficient of determination is 0.21. So, the model explains 21% of changes in dependent variable averagely. According to test results possibility model of the variables, variable of business literacy and savings has possibility <0.01, so this variable is significant at confidence level of 99% in the model; but variables of spending and borrowing literacy and insurance and pension have possibility <0.05, so the variables are not significant at confidence level of 95% in the model. Therefore, given the significance of spending and borrowing literacy variable that is the main hypothesis among components of financial literacy to approve or reject the hypothesis, it can be claimed that spending and borrowing literacy variable affects over-indebtedness of

Table 7: Results of the fifth main hypothesis

Variables	Non-standard coefficients (B)	SE	Standardized coefficients (β)	t-statistic	Possibility (Sig.)
Model fixed value	18.512	3.034		6.102	0.000
Self-control	-0.753	0.356	-0.202	-2.114	0.037

The effect of self-control components on over-indebtedness of consumers. Coefficient of determination, 0.141; The adjusted coefficient of determination, 0.12; Durbin-Watson statistic, 1.910; F-statistic, 4.470; Possibility, 0

consumers. On the other hand, coefficient of spending and borrowing literacy variable is negative in the model. This means that business literacy and savings variable has a negative or inverse impact on over-indebtedness of consumers. In other words, level of over-indebtedness of consumers will be increased by increasing spending and borrowing literacy and vice versa.

The fifth main hypothesis (H_5): The single-variate regression method was used to test this hypothesis. The following Table shows the analysis results. Given that the Durbin-Watson statistic is at standard distance of 1.5-2.5, therefore it can be resulted independence of remaining.

The entered variables in the regression equation are main core of regression analysis that has been shown in Table 7. The model adjusted coefficient of determination expresses degree of relevance of independent variables with dependent variables (over-indebtedness of consumers). According to Table 7, the model adjusted coefficient of determination is 0.12. So, the model explains 12% of changes in dependent variable averagely. According to test results possibility model of the variables, variable of self-control has possibility <0.05, so this variable is significant at confidence level of 95% in the model. Therefore, given the significance of self-control variable that is the main hypothesis among components of financial literacy to approve or reject the hypothesis, it can be claimed that self-control variable affects over-indebtedness of consumers. On the other hand, coefficient of self-control variable is negative in the model. This means that self-control variable has a negative or inverse impact on over-indebtedness of consumers. In other words, level of over-indebtedness of consumers will be increased by increasing self-control and vice versa.

CONCLUSION

In the main first hypothesis of this study, there was considered at least score of 60 for financial literacy and its triple components to implement statistical tests while average financial literacy of consumers was enough in triple fields of earn, saving and investment, spending and borrowing and insurance and pension but overall score of financial literacy of consumers was not enough in other words, the consumers are financially less literate. The result is consistent with the obtained findings by Hanna *et al.* (2010) and Moeinadin (2011) but it is not consistent with the obtained findings by Peng *et al.* (2007).

The obtained results in the main second can be explained as following. Consumer's age affects their financial literacy on field of business and savings but there is no statistical significant difference between consumers in fields of spending and borrowing insurance and pension and overall literacy. The result is consistent with the obtained findings by Dianati and Hanifehzadeh (2015) but it is not consistent with the obtained findings by Hassan *et al.* (2009), Dvorak and Hanley (2010), Peng *et al.* (2007), Rahat (2011) and Yousefi (2011). Consumer's gender has no effect on their financial literacy. In all areas, average of financial literacy is similar among male and female consumers. The result is consistent with the obtained findings by Kindle (2010) but it is not consistent with the obtained findings by Chen and Volpe (1998), Peng *et al.* (2007), Dvorak and Henley (2010), Moeinadin (2011), Rahat (2011), Yousefi (2011) and Dianati and Hanifehzadeh (2015). Consumer's marital status affects level of their financial literacy. In the conducted test, the married consumers got higher rate than single ones. It seems that responsibilities of marriage and independence of the married persons move them towards the required financial skills to earn common life that enhances their financial literacy. The result is consistent with the obtained findings by Chen and Volpe (1998), Moeinadin (2011) but it is not consistent with the obtained findings by Peng *et al.* (2007), Rahat (2011) and Samsami (2014). Consumer's education level has a significant impact on their financial literacy. The results showed that consumer's education level affects their financial literacy in both educational levels except in insurance and pension, so that consumers with higher education have higher financial literacy. The result is consistent with the obtained findings by Kindle (2010), Hassan *et al.* (2009), Dvorak and Henley (2010), Chen and Volpe (1998), Moeinadin (2011), Rahat (2011), Samsami (2014) and Dianati and Hanifehzadeh (2015) but it is not consistent with the obtained findings by Yousefi (2011). The level of household income was another variable affecting financial literacy of consumers. The results showed that the level of monthly household income of consumers affected their financial literacy level in all areas, except insurance and pension. Financial literacy of consumers with middle household income was more than consumers with high-income household. In fact, consumers with high income had less financial literacy. Understanding the reason for this result requires further investigations. The results of studying household income on financial literacy suggest effects of the variable. The result is consistent with the obtained findings by Hassan *et al*. (2009), Dvorak and Henley (2010) Moeinadin (2011) and Dianati and Hanifehzadeh (2015) but it is not consistent with the obtained findings by Samsami (2014). Parent's education levels were final variables that their effects on financial literacy of consumers was not confirmed. As a result, it can be admitted that all examined demographic variables in this study (except parent's education level) affected the level of financial literacy of the studied population. The result is consistent with the obtained findings by Moeinadin (2011), Rahat (2011), Samsami (2014) but it is not consistent with the obtained findings by Jumpstart and Murphy.

According to the third main hypothesis, it can be argued that variable of business literacy and saving affect consumer's self-control. On the other hand, coefficient of variable of business literacy and saving is positive in the model that means positive or direct impact of variable of business literacy and saving on self-control of consumers. In other words, consumer's self-control will be increased by increasing level of business literacy and saving and vice versa. According to the fourth main hypothesis, it can be argued that variable of spending and borrowing literacy affects over-indebtedness of consumers. On the other hand, coefficient of variable of spending and borrowing literacy is negative in the model that means negative or reverse impact of variable of spending and borrowing literacy on over-indebtedness of consumers. In other words, over-indebtedness of consumers will be reduced by increasing their spending and borrowing literacy and vice versa. According to the fifth main hypothesis, it can be argued that self-control variable affects over-indebtedness of consumers. On the other hand, coefficient of self-control variable is negative in the model that means negative or reverse impact of self-control variable on over-indebtedness of consumers. In other words, over-indebtedness of consumers will be reduced by increasing their self-control and vice versa.

RECOMMENDATIONS

Practical suggestions: In the present study, it was concluded that consumers have no adequate financial literacy. On the other hand, lack of self-control and insufficient financial literacy led to over-indebtedness of consumers. Now, due to the economic conditions on the one hand (rights of workers under the poverty line) and luxury and consumer goods in the market, on the other hand, as well as envy in the society, especially young generation that lead to debt of consumers, considering financial literacy and self-control issues will be important. To promote financial literacy and creating sense of self-control, the following recommendations are presented.

Parents: Parents play a very important role for children's present and future life. Parents have crucial genetic and environmental effects for children and their behaviors are patterns and models. Therefore, parents can be a proper model for their children by enhancing their financial knowledge level and establishing sense of self-control. On the other hand they can take necessary actions since childhood to raise their financial literacy level and enhance sense of self-control by involving children in financial issues, buying books, educational software and other means of financial education.

Education: As the second home for children and adolescents, schools can acquaint students with concepts such as investment, risk management, savings, borrowing, liquidity management and self-control by including headings of financial literacy in school textbooks. Schools can attempt to enhance student's understanding on concepts of personal finance to become a place to promote financial skills of students.

Mass media: Significant role of audio-visual media is clear in effectiveness of various training for the society people. Therefore, using different approaches, from advertisement to books and films, the media should attempt to highlight issue of financial literacy and control their emotions in daily purchases (self-control) as a critical issue to achieve more prosperity in social life and promote it among the society.

Planning authorities: In our country, retirement of most people means beginning their problems, rather than rest period with less concerned about debt and borrowing. Therefore, the government, especially institutions in matters related to finance including insurance companies, local stock exchange and securities, employers and worker's organizations such as worker house, Islamic councils and other administrators should provide necessary training for them on investment in life and savings insurances and stock investment, especially for vulnerable groups such a sresearchers, in order to promote their development in finance fields.

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