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The effect of human resources financial literacy and risk attitude on investor motivation

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ABSTRACT

BACKGROUND AND OBJECTIVES: The financial literacy is required as an ability for investor who require making decisions in a complex financial scenario. Therefore, the aim of the study was to investigation the effect of human resource's financial literacy and risk attitude on investment motivation in joint venture funds in Iran.
METHODS: The present study is descriptive-applied. the data was gathered using the literature review and survey information and data gathering method, was according to semi-structural questionnaire. The population included all individuals and Mutual Funds (MF) investors. The sample size was selected using Morgan table and 384 people. In order to analyze data, SPSS19 statistical method and correlation coefficient test, multivariate regression analysis and determination coefficient (R2) and variance analysis were utilized.
FINDINGS: Generally, the results indicated that the human resource's financial literacy and attitude toward risk has significant influence on investor motivation in joint venture funds in Iran. Because, determination coefficient (R2) resulting from regression suggests that variables related to investors financial literacy (as independent variables included: ability to interact and communication with financial concepts, financial concepts knowledge, skills in managing personal financial affairs, skillful in using appropriate financial decisions, confidence in effective planning for future financial needs, financial literacy in the field of financial jobs, knowledge of statistics and financial mathematics concepts and knowledge of computer concepts) explain 73% of motivation in joint venture funds in Iran (as dependent variable).
CONCLUSION: The results showed that human resource's financial literacy and attitude influenced on risk attitude on investment motivation in joint venture funds in Iran. Hence, the outcome can be useful for investors in process of policy makers in joint venture funds from of in Iran.

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INTRODUCTION

Reviewing the theoretical foundations of financial area and investment indicates that investors' decision making in classic finance, neoclassic finance, behavioral finance and neuro-finance fields in different periods of time, each have concentrated on the same dimension; there is no doubt that moving along time will justify the reason of discussion about concepts of the same time (Jalilvand and Rostami, 2018). Of course, decision-making is a complex process which includes analysis of several factors and following various steps. It is believed that the decision is based on two issues: personal, and technical. Similarly, investors tend to rely on these two factors when deciding on a stock exchange (Chandra, 2008). In fact, decision making in human beings is based on combination of cost-benefit (Quartz, 2009) and behavioral economics / behavioral finance (Ritter, 2003; Gutnik *et al*., 2006). In financial decision making, it is useless to imitate financial models based on efficient market and intellectual human being, So, it is required that behavioral models find their position in financial decision making and a realistic analysis is made from personal financial behavior to present financial consultation (Haratian and Najafi Moghaddam, 2019). In this way, in accordance with the evolution of financial theories, investment, and with regard to presenting different and supplementary perspectives in relation to the issue of investor decision-making; reviewing and present a new comprehensive structure in order to understand and recognize structure the decision-making process of investors; It can give a more comprehensive view of researchers and participant in the field of investment and finance about how they make decisions (Jalilvand and Rostami, 2018). One of the key and pivotal issues that has been raised and highlighted in recent years among other issues in the financial field, has been the knowledge and literacy of the organization's human resources. In fact, considering complexity of market and their competitiveness and privatization, one of the main requirements of an organization is to have strong human resources specially in the field of management (Zare Reis Abadi *et al*., 2013). In this regard, it seems that human resource literacy significantly influences organizations performance. Because, in present age, knowledge and information is the capital that creates wealth and economic value. Then, it is expected that people and organizations

with higher Financial Literacy (FL), have better financial performance. Today, Intellectual Capital (IC) and financial literacy, due to creation of knowledge and information and as a result generating wealth in economy based on knowledge plays important role in creating added value and gross domestic production. This significance may be caused by factors including revolution in information technology, increasing importance of knowledge and science-based economy and influence of innovation and creativity as elements determining competition (Guthrie, 2001). Thus, FL is required as an ability for investor who require to make decisions in a complex financial scenario (Potrich *et al*., 2015). It should be mentioned that FL is an issue that was not paid so much attention in the past, but in present world it has found its special position, considering the existing necessity (Zare Reais Abadi *et al.,* 2013). Therefore, the first study in conduct to financial literacy and making decision for investment in Singapore was implemented in 2005 and it asked Singaporeans and with corporatation of the Organization for Economic Co-operation and Development (OECD), if they have information about public financial products and services and if they make efficient decisions in relation to managing their financial affairs and investments. Results of research indicated that Singaporeans have appropriate attitude toward money management, financial planning and investment affairs. Most of them save money and supervise their personal expenses and decide about their financial planning themselves (OECD, 2005). So, importance of improving financial literacy, due to factors including development of new financial productions, financial markets and tools complexity, political changes and economic factors (Hassan Al-Tamimi *et al*., 2015). Financial literacy is recognized as an important element for economic stability and development (The Group of Twenty (G20), 2012). It is also believed that FL plays an important role in recognizing investors' behavior in advanced and emerging stock markets. While previous studies have shown that there is a positive relationship between increasing the level of financial literacy and the quality of investors' decision performance, however, the dynamics of this trend have not been sufficiently investigated (Jalilvand and Rostami, 2018). Therefore, the role and sensitivity of finance and providing services tailored to the different needs of society is increasingly increasing, and It is, as well as, one of the

main factors in developing of financial services, which may have different consequences (Ghanbari Alamdari *et al.*, 2016). The research in area of influence of human resource's (HR) financial literacy and attitude to risk on motivation of attracting investors, made in different researches, that all relatively confirm the importance of literacy and financial education influence on economic performance of organization and individuals. Henc, considering the review of theoretical foundations of financial literacy of human resources, attitude toward risk, and motivation attracting investors, The main purpose of this study is to investigate the effect of human resource financial literacy and risk attitude motivations in attracting investors in Mutual Funds in Iran.

Literature review and research background
Human resource financial literacy

Nowadays considering complexity of new commercial environments and diversity of services and products delivered by credit institutions, gaining financial welfare, requires appropriate understanding of financial issues. This requirement has been felt in most modern societies since long ago and has been discussed since 1990 as titles including financial literacy and personal finance and its importance has been increased in a way that nowadays concepts related to it has been taught in countries including United State (US) and United Kingdom (UK), are considered as part of curriculum in high schools lessons and various academic disciplines at the university (Yaghoobnejad *et al*., 2011). Therefore, it may be stated that emergence of a theoretical construct is linked to specific economic- social situations and in this way, theoretical concepts are not created in vacuum, but they reflect their social life issues. Financial literacy, as a theoretical concept, is not excluded from this rule (Eslami Bidgoli and Karimkhani, 2016). Financial literacy was first discussed in 1997 in US, in the ceremony of Jump Start Coalition for Personal Financial Literacy (PFL). This coalition defined financial literacy as the ability of someone to use his knowledge and skill to manage financial resources in an efficient way to achieve financial security during his life (Jump start Coalition, 2007). In academic forums, FL has also found different meanings and is used to refer to knowledge about financial products (such as stocks compared to bonds, the difference between mortgages at

fixed and floating rates, etc.), also, knowledge about financial concepts (inflation, compound interest, diversity, credit scores, etc.), mathematical or numeral skills required for making effective financial decisions and involving in specific activities such as financial planning (Hastings *et al*., 2012). There is no doubt that in some of the developed countries non-profit foundations have undertaken the duty to develop financial literacy and organize different tests to measure Financial Knowledge (FK) advancement in their own country. In spite of the importance of financial literacy, concepts and issues related to it have not been paid attention so much and there is no proper tool to measure it (Yaghoob Nejad *et al*., 2011).

Financial literacy and investment decision making of investors

Today, achieving the economic goals of a country is impossible without the participation of its people: one of the ways for people to participate in economic development is to invest in the capital market and the stock market. Because in this way, little savings will be directed to productive activities and the economy will flourish. Individuals increasingly participate in financial markets and participation in financial markets has been accompanied with emergence of new products and financial services. Hence, some of these financial complex products are difficult for investors' understanding, especially novice financial investors. Although investment in stock exchange market begins with buying a security, buying this financial asset requires exact analysis of its present and future situationExperience has shown that people who invest on the basis of suspicion do not make as much profit as they expect. So, confronting this situation, one should ask himself if they are equipped enough for financial decision making. Do they have enough literacy and financial information? A main factor which prevents one from stock ownership is lack of proper understanding from economy and financial affairs. Different measurements of financial literacy indicate that lack of financial literacy prevents one from participation in stock market. Welfare due to non-participation in stock market is significant and on the other hand, it is obvious that unaware investors may not utilize stock market completely or have efficient investment and it is impossible for them to have reasonable choice when investing in

financial market (Moradi and Izadi, 2014).

Research background

In a study by The Organization for Economic Co-operation and Development (OECD), 2005) studying about the financial literacy in 12 countries including United States of America, Britain, European countries, Australia and Japan, it was found that financial literacy of most respondents is very low. Remund (2010) conducted a survey of the financial literacy and found that different definitions declared about financial literacy may be classified to five classes that was incudes: a) Knowledge about financial concepts; b) communicating about financial concepts; c) Having skill in managing personal financial affairs; d) having skill in utilizing proper financial decisions; and, e) confidence in efficient planning for future financial requirements. Van Rooij Maarten *et al.*, (2011.b) examined the relation between financial literacy and participation in stock exchange and concluded that most respondents are acquainted with financial knowledge and some concepts like interest compound, inflation and time value of money but very few knew beyond this and many respondents didn't know difference between bond and stock, the relation between bond price and interest rate and principles of risk diversity. Van Rooij *et al.*, (2011.a) addressed the relation between financial literacy and plans for retirement period of people in Holland and concluded that complexity of financial decision making in families have increased very much and it seems that considering this condition, families unfamiliar with financial literacy confront problems in the field of saving method and investment for retirement period. In other words, those who are literate in the field of finance, are more powerful in planning for their retirement period. Gathergood (2012) points to the relation between self-control, financial literacy and over-debt of customers in England. The results showed that customers with self-control problems use daily payment loans and store cards as rapid access but expensive credit solutions. Also, results of research indicated that these customers mostly confront with problems such as income shock, credit withdrawal and unanticipated exchanges in long run and this indicates that exposure to lack of self-control will expose the individual to different risks. Of course, the research concluded that in most cases, the role of lack of self-control in relation to financial illiteracy in explaining customer debt is insignificant. Yaghoob Nejad *et al.*, (2011) investigated the issue by presenting a model for measuring Iranian students financial literacy using fuzzy Delphi method. In this research, the issue of financial literacy, theoretical foundations and background of researches made in this field is discussed first, then fuzzy Delphi technique is presented to gain consensus of 12 financial experts (as Delphi panel) and a questionnaire including 25 questions is used to measure financial literacy of Iranian students and presented as the model for measuring financial literacy in university level. Results indicated that questions selected as a result of expert consensus include various concepts including money time value, investment in stock and participatory papers, inflation, electronic banking, different ways for borrowing money, insurance, retirement etc. Van Rooij Maarten *et al.*, (2012), studied the the relationships between Financial literacy, retirement planning and household wealth. The results showed (indicate) that was significant association between financial literacy and net worth. Rahmati and Nayebzade (2013), studied the influence of literacy and entrepreneurship on performance of Yazd Steel Companies and stated that research model is formed using entrepreneurship, financial literacy and commercial literacy variables as independent variable and job performance as dependent variable. Zare Reis Abadi *et al.*, (2013), examined the influence of demographic characteristics on financial literacy in between the managers in Yazd city. After data analysis using statistical techniques, results indicated that managers are literate in the field of general financial literacy but illiterate in the field of specialized financial literacy. Also, results suggest that among demographic characteristics, educational major and age of individuals, there had been the more influence on financial literacy. Zandi *et al.*, (2014), investigated the relation between financial literacy, participation in stock market and saving behavior in Tehran citizens. The results showed (indicate) that level of financial literacy and risk taking of individuals influence their participation level in stock market but familiarity with brokers doesn't influence their participation in stock market. Variance analysis of financial literacy and saving behavior of individuals suggest the existence of significant positive relationship between two factors. Ghalmagh *et al.*, (2016), studied the influence

of financial literacy on behavioral biases of investors in Tehran securities market and stated that financial literacy and behavioral biases are two major factors influencing investors' decisions and financial behavior. Data analysis results showed that there is significant positive relation between financial literacy level and behavioral biases of investors. Samsami *et al*., (2013) investigated the issue of financial literacy and participation in stock market. In order to compare groups average Scheffe paired test and in order to study the relation between two abnormal variables, Spearman correlation coefficient was used. In order to study different hypotheses, results indicate that stockholders are financially literate. Stockholders' financial literacy is influenced by components including level of education, college, and high school. Childhood experiences influence financial literacy. Financial literacy influences investment diversity, stock portfolio diversity and background of investment. Moradi and Izadi, (2014), investigated the influence of investors' financial literacy on making decisions about investing in securities. Using the gather data, the questionnaire and distributed it between in 384 investors of Tehran Stock Exchange (TSE) market, the statictic results of this research, showed that, financial literacy was significant influence on decision-making investing of investors in Tehran Stock Exchange (TSE). Eslami Mofid Abadi *et al*., (2015), in a research investigated the survey of the relationship between investment incentives and opportunities to make a profit of the stock price based on economic psychological factors and advances behavioral finance in the capital market of Iran. The results showed that there are significant positive relationship between investment incentives and opportunities for profit stock price, according to new behavioral finance economic and psychological variables is among shareholders the Tehran Stock Exchange (TSE) and given the positive and significant coefficient of the regression line equation was estimated, is confirmed the main hypothesis of research. Rahnamay Roodposhti *et al*., (2016), in a research revealed the role of investors' objective financial knowledge on the assessment of risk disclosures in mix Mutual Funds advertisements with the evidence of Mutual Funds in Iran. Finally, their data in this reearch was analyzed by SPSS software. The results showed that financial literacy of investors influences the risk disclosure of promotion mix by

Nutual Funds in Iran. The financial literacy of investors reduces uncertainty of future decisions and increases predictability of investment policies in financial markets. Moreover, their was show that financial literacy of investors leads to predictable risk and return among those who are interested in investment in Iranian mutual funds. Eslami Bidgoli and KarimKhani, (2016), investigated the issue of financial literacy, and political - economical background of their emergence in market economy and stated that emergence of any theoretical construct is related to specific economic social situation. For this purpose, in this research was explored the relation between financial literacy and financialization and explained financialization phenomenon, and was attempt to explain the reasons for emergence of neoliberalism though. After explained existing economic and social situation of financial literacy and its influence and position, different definitions provided for this word, measurement methods and was important the findings of recentelly research that be reviewed. Toghyani and Moradi Basiri, (2016) addressed critical analysis of general education model of financial literacy from Islamic economy point of view and explained that nowadays, USA has designed a model in financial literacy domain and is trying to promote it in the world through expanded advertisements. Results of this data analysis path indicated that self-control of financial managers has significant positive influence on information disclosure quality but obeying religious obligations don't influence information disclosure quality. These results contribute to theoretical expansion of disclosure quality through identifying factors influencing this field. Its results may be used in appointing future managers which will increase clarity of information and enhance quality of disclosed information. Molazade *et al*., (2016) studied the influence of financial literacy of managers on profit management and reviewed the difference of earning management in companies with Chief Executive Officer (CEO), who has financial knowledge and other companies. The results indicated that CEO financial knowledge doesn't influence profit management according to optional accruals and real events. On the other hand, there is no significant difference between profit management based on optional accruals and real events. On the other hand, there is no significant difference between profit management based on

optional accruals and real events in companies with CEO who has financial knowledge and other companies. Molaee and Rostami, (2016), investigated the relation between financial disagreement and financial knowledge in companies established in Isfahan research complex and indicated that there is significant relation between financial knowledge and financial conflict among managers of science based companies. It means that people with high level of education experience financial conflict and reaction toward it less than others. Also, in their research findings of demographic section indicated that there is significant relation between demographic characteristics and financial literacy level and experience of financial conflict. Ziaiipoor and Miladian, (2016) examined the issue of financial literacy on financial behavior of investors in Tehran Stock Exchange (TSE). Results were analyzed by version 14 of SPSS software using Spearman and Pierson correlation coefficient tests and the results indicate that financial literacy influences overconfidence behavioral biases in prediction, status quo bias and loss aversion in a positive way and influences representativeness biases negatively and inversely and in other cases no significant relation was observed. Shen *et al*., (2016a) found that there is a significant relation between financial literacy and financial disagreement among managers, in a way that people with higher financial literacy report less financial disagreement experience and reaction to it. Shen *et al*., (2016b) indicated that increase in financial literacy of a company, will result in reduction of financial disagreements and also increase in money management and saving literacy, finance and credit management literacy, investment planning literacy will lead to reduction of financial literacy. Stolper and Walter., (2017) examined the issue of financial literacy, financial counsellorship and financial behavior. Their referendum indicated that evidences related to plan efficiency is disappointing. They also evaluated the role of individuals' financial literacy in using professional financial counsellorship and found that intermediate role of experts is considered a major option for financial literacy and they also talked about the role of financial literacy, counsellorship and financial behaviors from several dimensions for their future research. Alizade Kettenlooi *et al*.,(2017) point to the attention made to financial literacy and economic components in elementary school books.

Face and content analysis of research tools, are calculated according to experts' opinion and its reliability is assessed by Holsti (1969) method with reliability coefficient equal to 95% for economic literacy and 93% for financial literacy; data obtained from content analysis process suggest that level of attention paid to financial and economic literacy in textbooks is different and also economic literacy components are addressed more than financial literacy. Considering the results of this research and the role of financial and economic literacy in today world, more emphasis on financial and economic literacy components in elementary school textbook contents seem to be more necessary than before. Jalilvand and Rostami, (2018) investigated the issue of financial literacy, investors sentiment, risk understanding and inclination to invest presenting evidences from Tehran exchange market. Results of their study used the expanded data in relation to investors' behavior in Tehran exchange market in 2016 in which evidences about the effect of investors' behavior in Tehran exchange market are presented. On the other hand, financial knowledge, risk understanding and sentiments influence investors' decisions in Tehran exchange market collectively in a significant way and furthermore they found evidences based on the influence of gender, and risk understanding and incline to investment. Eftekhari Aliabadi, (2019) studied the influence of financial intelligence on the behavior of using credit cards among Bank Mellat subsidiaries' customers in Tehran and for this purpose from 3600 customers of Bank Mellat, using Cochran equation, 347 individuals in the level of 5% error were selected. Research results indicate that financial intelligence influences behavior of using credit cards among Bank Mellat subsidiaries' customers. Also, financial behavior and financial education influence the behavior of using credit cards directly and indirectly; but financial literacy doesn't influence the behavior of using credit card. Haratian and Najafi Moghaddam, (2019) investigated and studying financial subjective diagram, a new approach in personal financial consultation in order to present a new solution as subjective financial diagram. Considering the necessity of managing personal financial affairs in the life of individuals and the influence of financial behavior and intelligence in financial decision making, in this research it was tried to enter these points as key elements in financial
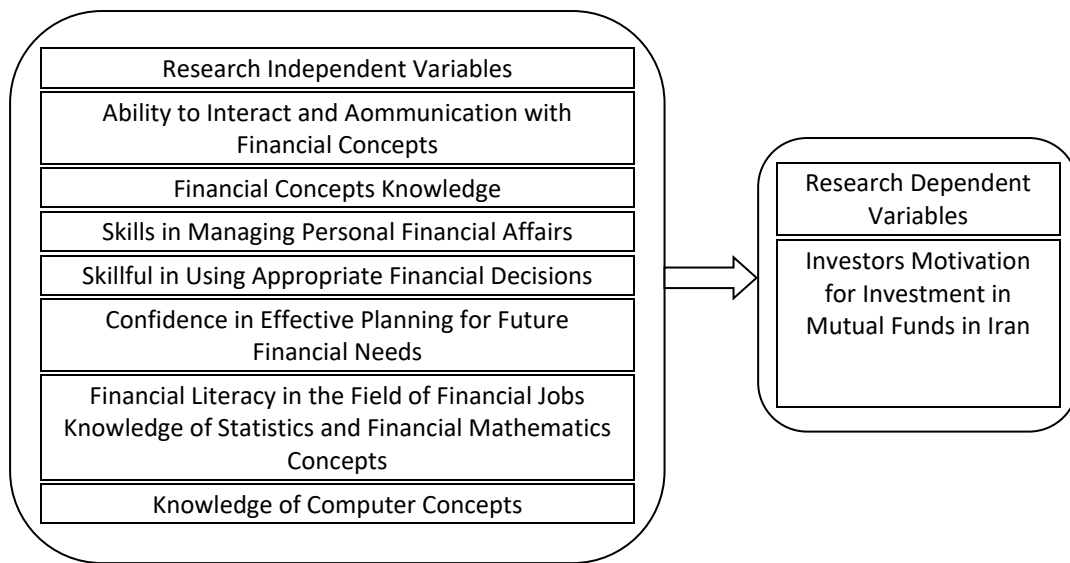
Fig. 1: Research conceptual model

subjective diagram. After researches, it was found that many factors including financial intelligence, behavioral biases and so on influence financial subjective diagrams. Furthermore, since financial diagram has been derived from one's own mind, reviewing it for delivering financial consultation will prove to be useful in improvement and increase of financial consultation influence on financial thinking and continuing financial empirical behavior of the person applying for consultation. Balasubramnian and Springer Sargent, (2020) examined the impact of inflated perceptions of financial literacy on financial decision making and indicated that inflated perceptions of financial literacy affect on financial decision making.

Research conceptual model

The purpose of survey theoretical design, is a theoretical attitude or perspective in which it is decided to review the issue designed in the first question (Quivy and Van Campenhoud, 2006). According to studies made in present research, some important dimensions and key variables included in Fig. 1.

Fig.1 shows the causal relationships of the independent and dependent variables of the research. Where research is dependent variable Investment motivation ($Y_{i,t}$), for investors in Mutual

Funds in Iran, and also independent variables include, human resources financial literacy and risk attitude ($X_{i,t}$). The current study have been carried out in Tehran in 2020.

MATERIALS AND METHODS

Research in the social sciences, due to the problems they face in the deductive method, is done through the inductive method and is based on the study of the sample and the generalization of its results to the whole. But in deductive method, initially total society is reviewed and after real results is obtained it will be generalized to all components (Rasouli and Bahranfar, 1998). The method was applied in terms of purpose and descriptive-survey in terms of research design. the data was gathered using the literature review and survey information and data gathering method, was according to semi-structural questionnaire. The population included all individuals and mutual funds investors. The sample size was selected using Morgan table and 384 people. Research data was analyzed using Statistical Package for the Social Sciences (SPSS). In order to determine the validity of the assessment tool and to remove the ambiguity of the questionnaire, the opinions of some experts in the field of financial literacy was used to determine the validity of the content, which the result indicated the desired validity of the test

Table 1: the design and development of the research questionnaire

Variable Type	Variable	N. Question	Source
Dependent $(Y_{i,t})$	Motivation of investors' investment in mutual funds of Iran	1-12	
Independent $(X_{i,t})$	Confidence in efficient planning for future financial requirements	13-17	Study and literature review based on survey information
	The ability to communicate with financial concepts	18-22	
	To enjoy from financial, statistics, and mathematics concepts knowledge	23-27	
	To enjoy from computer concepts knowledge	28-32	
	To enjoy from financial concepts knowledge	33-35	
	Financial literacy in the field of financial job	36-39	
	Skillful in using appropriate financial decisions	40-44	
	Skillful in managing personal financial affairs	45-50	

Table 2: Description of research variables' statistical characteristics

Variable Type	Variable	Observation no.	Aaverage	Minimum	Maximum	Mean	Variance	Standard Deviation
Dependent	Motivation of investors' investment in mutual funds of Iran	384	30.127	8.12	45.65	29.501	38.891	6.236
Independent	Confidence in efficient planning for future financial requirements	384	19.0900	5.33	25.32	19.515	2.830	1.682
	The ability to communicate with financial concepts	384	20.026	11.70	23.00	20.006	3.447	1.856
	To enjoy from financial, statistics, and mathematics concepts knowledge	384	19.0900	5.33	21.00	19.504	2.465	1.570
	To enjoy from computer concepts knowledge	384	20.011	11.70	28.96	20.01	3.851	1.962
	To enjoy from financial concepts knowledge	384	34.09	9.188	51.655	33.381	44.008	7.057
	Financial literacy in the field of financial job	384	21.60	6.031	28.65	22.082	3.203	1.904
	Skillful in using Appropriate financial decisions	384	22.66	13.239	26.02	22.638	3.901	2.101
	Skillful in managing personal financial affairs	384	21.59	6.031	23.764	22.065	2.790	1.777

content. In addition, Cronbach's alpha method was used to determining the reliability of multiple choice tests of the questionnaire. As shown in Table 1 all dimensions of questionnaire used in present research have the required reliability, because Cronbach's alpha coefficient has been 0.79.

RESULTS AND DISSCUSION
Description of research variables' statistical characteristics

Description of research variables: Table 2 indicates independent and dependent variables, including frequency average, observation, variance, standard deviation, kurtosis coefficient, extension coefficient and for each variable used in the research.

One sample Kolmogorov- Smirnov test to measure data normality

In this study, Kolmogorov- Smirnov test was used to identify the normality of related data in research questionnaire to identify if parametric and non-parametric tests should be used for testing hypotheses. As shown in Table 3, and considering comparisons made with critical value in the level of 5% error, it is observed that test statistics Located in the area of H_0, and it may be argued that data is

Table 3: Research normality results (dependent and independent variables)

Variable Type	Variable	Observation no.	Test level (Z)	Level of Significance	Variable Situation	Normality Situation of Hypothesis	Cronbach's Alpha Coefficient
Dependent	Motivation of Investors' Investment in Mutual Funds of Iran	384	2.237	.741	Normal	(H_0) is Accepted	0.86
Independent	Confidence in Efficient planning for future financial requirements	384	3.349	.512	Normal	(H_0) is Accepted	0.77
	The Ability to Communicate with Financial Concepts	384	1.283	.669	Normal	(H_0) is Accepted	0.83
	To Enjoy from Financial, Statistics, and Mathematics Concepts Knowledge	384	3.259	.451	Normal	(H_0) is Accepted	0.85
	To Enjoy from Computer Concepts Knowledge	384	1.248	.214	Normal	(H_0) is Accepted	0.77
	To Enjoy from Financial Concepts Knowledge	384	3.847	.325	Normal	(H_0) is Accepted	0.78
	Financial Literacy in the Field of Financial Job	384	2.624	.413	Normal	(H_0) is Accepted	0.72
	Skillful in Using Appropriate Financial Decisions	384	3.294	.368	Normal	(H_0) is Accepted	0.84
	Skillful in Managing Personal Financial Affairs	384	1.965	1.03	Normal	(H_0) is Accepted	0.77
	Total	384	1.246	2.18	Normal	(H_0) is Accepted	0.79.

normally distributed.

H_0: Data is normal (data has been brought from normal population)

H_1: Data is not normal (data has not been brought from normal population)

Table 3 indicates the normality results test bassed on one sample Kolmogorov- Smirnov test (Z test level and significance level) for all variables (dependent and independent variables) that applied in research conceptual model (Fig. 1). Hence, the result of this test showed that there are significant level (Sig.) is more than significance level (α or Alpha= 0.05) and have been accepted the hypothesis (H_0) or normality of data distribution. in other words, data distribution in these variables has been normal. One of the main presumptions of linear regression is that distribution of dependent data distribution should be normal or near normal. So, since research variables follow normal distribution method, in order to implement regression, data logarithm is utilized.

Cronbach's alpha to address validity and reliability of questionnaire

Generally, measuring reliability and validity of research data should be determined based on Cronbach's alpha test. If the results obtained for this test are more than 0.70, the accuracy of the research data can be assured. In this research, it was mentioned that after gathering data from primary sample, data is entered in SPSS software and Cronbach's alpha coefficient was calculated which the intended coefficient for questionnaires was determined to be nearly 0.79 Therefore, as shown table 3 thet questionnaire have the required validity and reliability for measuring data.

Results of examining research hypotheses

*Research hypothesis***:** Human resource financial knowledge and attitude toward risk has significant influence on motivation for attracting investors in Iran mutual funds.

Table 4 and 5 indicates the results obtained from regression test related to research hypothesis. Therefore, the outcome from regression test suggests that investors financial literacy (confidence in efficient planning for future financial requirements, the ability to communicate with financial concepts, to enjoy from financial, statistics, and mathematics

Table 4: results of regression test

Research Model	Entered Variables	Eliminated Variables	Research Method
Dependent	Investors financial knowledge (Confidence in efficient planning for future financial requirements, the ability to communicate with financial concepts, to enjoy from financial, statistics, and mathematics concepts knowledge , to enjoy from financial concepts knowledge, financial literacy in the field of financial job, being skillful in using appropriate financial decisions, being skillful in managing personal financial affairs)	In the model, no eliminated variable was observed	Input
Independent	motivation for attracting investors in Iran mutual funds	In the model, no eliminated variable was observed	Input

Model estimating variables: motivation for attracting investors in Iran mutual funds

results of regression test and Summary of estimated regression

Research Model	R Model Correlation Coefficient	R square (R^2) Square of Model Ccorrelation Coefficient	Adjusted R Square Model Adjusted Correlation Coefficient	Standard Deviation of Model Estimate error
Input	.730	.533	.523	1.114

Model predicting variables Investors financial literacy (Confidence in efficient planning for future financial requirements, the ability to communicate with financial concepts, to enjoy from financial, statistics, and mathematics concepts knowledge , to enjoy from financial concepts knowledge, financial literacy in the field of financial job, being skillful in using appropriate financial decisions, being skillful in managing personal financial affairs)

Table 5: Final regression model coefficients of research main model

Research Model	Unstandardized beta Coefficients		Standardized Beta Coefficients	(t)	Level of Significance (sig)
	(B)	Standard Deviation	(Beta)		
Fixed Coefficient	2.528	.283	-	8.946	.000
Confidence in Efficient Planning for Future Financial Requirements	.347	.52	.437	6.626	.000
The Ability to Communicate with Financial Concepts	-.34	.053	-.42	-.645	.519
To Enjoy from Financial, Statistics, and Mathematics Concepts Knowledge	.368	.37	.429	10.048	.000
To Enjoy from Computer concepts Knowledge	.120	.43	.156	2.793	.005
To Enjoy from Financial Concepts Knowledge	-.37	.38	-.53	-.979	.328
Financial Literacy in the Field of Financial Job	-0.68	.042	-.083	-1.619	.106
Being Skillful in Using Appropriate Financial Decisions	-.093	.036	-.127	-2.580	.010
Being Skillful in Managing Personal Financial Affairs	.102	.037	.135	2.736	.007

Model predictable variables: motivation   for attracting investors in Mutual Funds in Iran.

concepts knowledge, to enjoy from financial concepts knowledge, financial literacy in the field of financial job, being skillful in using appropriate financial decisions, being skillful in managing personal financial affairs) influence motivation of attracting investors in Mutual Funds of Iran. In other word, Table 4 suggests

that variables related to investors financial literacy explain 73% of motivation of attracting investors in Mutual Funds in Iran.

Table 6, shows Spearman correlation coefficient in the sample related to research hypothesis, it may explain that the obtained correlation coefficient

Table 6: Final Spearman correlation coefficient test

Rsearch Variables		Motivation of Investors' Investment in Mutual Funds of Iran	Confidence in Efficient planning for future financial requirements	The Ability to Communicate with Financial Concepts	To Enjoy from Financial, Statistics, and Mathematics Concepts Knowledge	To Enjoy from Computer Concepts Knowledge	To Enjoy from Financial Concepts Knowledge	Financial Literacy in the Field of Financial Job	Skillful in Using Appropriate Financial Decisions	Skillful in Managing Personal Financial Affairs
Correlations										
Motivation of Investors' Investment in Mutual Funds of Iran	Pearson Correlation	1								
	Sig. (2-tailed)									
	N	384								
Confidence in Efficient planning for future financial requirements	Pearson Correlation	.617**	1							
	Sig. (2-tailed)	.000								
	N	384	384							
The Ability to Communicate with Financial Concepts	Pearson Correlation	.529**	.832**	1						
	Sig. (2-tailed)	.000	.000							
	N	384	384	384						
To Enjoy from Financial, Statistics, and Mathematics Concepts Knowledge	Pearson Correlation	.623**	.522**	.511**	1					
	Sig. (2-tailed)	.000	.000	.000						
	N	384	384	384	384					
To Enjoy from Computer Concepts Knowledge	Pearson Correlation	.138**	.062	.086	.095	1				
	Sig. (2-tailed)	.007	.000	.000	.000					
	N	384	384	384	384	384				
To Enjoy from Financial Concepts Knowledge	Pearson Correlation	.086	.109*	.182**	.099	.713**	1			
	Sig. (2-tailed)	.094	.000	.000	.000	.000				
	N	384	384	384	384	384	384			
Financial Literacy in the Field of Financial Job	Pearson Correlation	.150**	.179**	.172**	.210**	.610**	.565**	1		
	Sig. (2-tailed)	.003	.000	.001	.000	.000	.000			
	N	384	384	384	384	384	384	384		
Skillful in Using Appropriate Financial Decisions	Pearson Correlation	.139**	.212**	.204**	.234**	.530**	.564**	.584**	1	
	Sig. (2-tailed)	.006	.000	.000	.000	.000	.000	.000		
	N	384	384	384	384	384	384	384	384	
Skillful in Managing Personal Financial Affairs	Pearson Correlation	.238**	.216**	.194**	.191**	.555**	.478**	.612**	.583**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	384	384	384	384	384	384	384	384	384

**. Correlation is significant at the 0.01 level (2-tailed).   *. Correlation is significant at the 0.05 level (2-ailed).

Table 7: ANOVA test results, coefficient of comparing model coefficient averages

Research Model	Sum of squares	Degree of freedom (df)	Mean Square	F (Fischer test statistics)	Level of significance (Sig.)
Regression	530.936	8	66.367		
Residual	465.689	375	1.242	53.443	.000[a]
Total	996.625	383			

a. Model predicting variables: investors' financial literacy (confidence in efficient planning for future financial requirements, the ability to communicate with financial concepts, to enjoy from financial, statistics, and mathematics concepts knowledge , to enjoy from financial concepts knowledge, financial literacy in the field of financial job, being skillful in using appropriate financial decisions, being skillful in managing personal financial affairs). Model predicted variables: and motivation of attracting investors in mutual funds in Iran.

Table 8: Summary of comparison of research results with previous researches

Dependend variable Y$_{i,t}$	Constant Coefficients	Confidence in Efficient Planning for Future Financial Requirements	The Ability to Communicate with Financial Concepts	To Enjoy from Financial, Statistics, and Mathematics Concepts Knowledge	To Enjoy from Computer concepts Knowledge	To Enjoy from Financial Concepts Knowledge	Financial Literacy in the Field of Financial Job	Being Skillful in Using Appropriate Financial Decisions	Being Skillful in Managing Personal Financial Affairs	demographic characteristics	investment incentives	References
			Factors of of Financial literacy							Other Factors		
Classified as financial literacy	NA	+	+	+	+	+	+	+	+	NA	NA	The Organization for Economic Co-operation and Development (OECD) (2005)
Classified as financial literacy	NA	+	+	+	+	+	+	+	+	NA	NA	Remund (2010)
Plans for retirement	NA	+	+	+	+	+	+	+	+	NA	NA	Van Rooij *et al*., (2011.a)
Participation in stock	NA	+	+	+	+	+	+	+	+	NA	NA	Van Rooij *et al*., (2011.b)
Over-debt of customers	NA	+	+	+	+	+	+	+	+	NA	NA	Gathergood (2012)
Measuring financial literacy in university	NA	+	+	+	+	+	+	+	+	NA	NA	Yaghoob Nejad *et al*., (2011)
Entrepreneurship on performance	NA	+	+	+	+	+	+	+	+	NA	NA	Rahmati and Nayebzade (2013)
Financial literacy in between the managers	NA	NA	NA	NA	NA	NA	NA	NA	NA	+	NA	Zare Reis Abadi *et al*., (2013)
Participation in stock market and saving behavior	NA	+	+	+	+	+	+	+	+	+	NA	Zandi *et al*., (2014)
Participation in stock market	NA	+	+	+	+	+	+	+	+	+	NA	Samsami *et al*., (2013)
Decision-making investing of investors in securities	NA	+	+	+	+	+	+	+	+	NA	NA	Moradi and Izadi, (2014)
Opportunities to make a profit of the stock price	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	+	Eslami Mofid Abadi *et al*, (2015)
Risk and return in mix Mutual Funds in Iran	NA	+	+	+	+	+	+	+	+	+	NA	Rahnamay Roodposhti *et al*., (2016),
Market placing for finance	NA	+	+	+	+	+	+	+	+	NA	NA	Eslami Bidgoli and KarimKhani, (2016)
Information disclosure quality and obeying religious obligations	NA	+	+	+	+	+	+	+	+	NA	NA	Toghyani and Moradi Basiri, (2016)
Profit management	NA	No	No	No	No	No	No	No	No	NA	NA	Molazade *et al*., (2016)
Financial conflict among managers	NA	+	+	+	+	+	+	+	+	+	NA	Molaee and Rostami, (2016),
Financial behavior of investors	NA	+	+	+	+	+	+	+	+	+	NA	Ziaiipoor and Miladian, (2016)
Financial disagreement of managers	NA	+	+	+	+	+	+	+	+	+	NA	Shen *et al*., (2016a)
Financial disagreement of managers	NA	+	+	+	+	+	+	+	+	+	NA	Shen *et al*., (2016b)

Continued Table 8: Summary of comparison of research results with previous researches

Dependend variable Y$_{i,t}$	Test results of researchers' hypotheses (Effect)											References
	Independend variable (X$_{i,t}$)											
	Factors of of Financial literacy									Other Factors		
	Constant Coefficients	Confidence in Efficient Planning for Future Financial Requirements	The Ability to Communicate with Financial Concepts	To Enjoy from Financial, Statistics, and Mathematics Concepts Knowledge	To Enjoy from Computer concepts Knowledge	To Enjoy from Financial Concepts Knowledge	Financial Literacy in the Field of Financial Job	Being Skillful in Using Appropriate Financial Decisions	Being Skillful in Managing Personal Financial Affairs	demographic characteristics	investment incentives	
Behavioral biases of investors	NA	+	+	+	+	+	+	+	+	NA	NA	Ghalmagh *et al.*, (2016)
Financial counsellorship and financial behavior	NA	+	+	+	+	+	+	+	+	+	NA	Stolper and Walter., (2017)
Economic literacy in textbook	NA	+	+	+	+	+	+	+	+	NA	NA	Alizade Kettenlooi *et al.*, (2017)
Influence investors' decisions	NA	+	+	+	+	+	+	+	+	NA	NA	Jalilvand and Rostami, (2018)
Behavior of using credit cards Bank Mellat	NA	No	No	No	No	No	No	No	No	NA	NA	Eftekhari Aliabadi, (2019)
Influence financial subjective diagrams	NA	+	+	+	+	+	+	+	+	NA	NA	Haratian and Najafi Moghaddam, (2019)
Financial decision making	NA	+	+	+	+	+	+	+	+	NA	NA	Balasubramnian and Springer Sargent, (2020)

*No: was not effect.

**No: was not available at the time of the present research.

and calculated level of significance approves the correlation between investors' financial literacy. Furthermore, motivation of attracting investors in Mutual Funds in Iran is significant that means the main hypothesis is confirmed. In other words, it may be argued at the 95% confidence level there is significant relationship between investors' financial literacy and motivation of attracting investors in Mutual Funds in Iran.

Table 7, indicates results obtained from ANOVA test in the sample relating to research hypothesis which suggests that results of regression test in 95% confidence level is significant. Interpreting test results of research model: Briefly Tables 3 and 7, indicate research hypothesis statistical description. So, considering the fact the test statistical value in level of significance (Sig.) for all independent variables is less than 5%, it may be stated that this variable is significant and according to it results of research hypothesis is confirmed too. It means that investors' financial literacy has significant influence on the dependent variable of motivation of attracting investors in Mutual Funds in Iran. In other words,

there is significant relationship between investors' financial literacy and motivation of attracting investors in Mutual Funds in Iran. Furthermore, larger estimation standard error which measures level of point distribution around regression line in two dimensional space increases distribution around regression line. Thus, with 95% confidence level can be generalized to all population of present study, which is Mutual Funds in Iran. Moreover, the results and findings of the current research was compareed with the previouse studies in Table 8, which illustrate, at a glance, a comparison between the results obtained in this study and other researches conducted (as mentioned in the research literature review part) in the field of Financial Literacy.

CONCLUSION

The financial literacy is required as an ability for investor who require to make decisions in a complex financial scenario. The aim of the current research was to investigate the effect of human resources financial literacy and risk-taking attitudes on investors' motivations in joint venture funds in Iran

The statistical population included all the people who are the Investors in the Mutual Funds in Iran (IFMI) and are active in the field of financial and economic businesses in Iran. The statistical sample was 384 people, using Morgan table. This research was methodologically a descriptive-applied research. Also, in order to collect the required data, library and field information methods and questionnaire distribution were used. In order to analyze the archived data, SPSS19 statistical method and correlation coefficient test, multivariate regression analysis and determination coefficient (R2) and variance analysis were utilized. The results indicated that the human resources' financial literacy and attitude toward risk has significant influence on investor motivation in joint venture funds in Iran. As determination coefficient (R2) resulting from regression suggests that variables related to investors financial literacy of independent variables including: ability to interact and communication with financial concepts, financial concepts knowledge, skills in managing personal financial affairs, skillful in using appropriate financial decisions, confidence in effective planning for future financial needs, financial literacy in the field of financial jobs, knowledge of statistics and financial mathematics concepts and knowledge of computer concepts, explain 73% of motivation in joint venture funds in Iran as dependent variable, Therefore it can be concluded that human resource's financial literacy and attitude influenced on risk attitude on investment motivation in joint venture funds in Iran. Hence, the outcome can be useful for investors in process of policy makers in joint venture funds of in Iran.

Suggestions

According to the findings, investors of Mutual Funds in Iran (IMFI) are recommended to apply the following items:

1-The all mangers of mutual funds in Iran, should abale creating a strong and up-to-date mechanism and database for reporting the knowledge and financial literacy of investors of Mutual Funds (MF) in Iran.

2- Generaly, the result of this study would be beneficial for investors and brokerage companies of Mutual Funds (MF) in Iran as they will focus on financial literacy and try to management of risk attitude to enjoy gains or profits.

AUTHOR CONTRIBUTIONS

H. Eslami Mofid Abadi, performed the study conception and design, data collection, analysis of data and interpretation of results, and manuscript preparation, followed by rewising, and was also extensively involved in reviewing literature and preparing the manuscript and writing original draft preparation. Z. Houshmand Neghabi, performed methodology, reviewed and edited the final manuscript. S. Morshedian Rafiee performed the data analysis, data correction, results interpretation, and discussion. M. Mirzapou reviewed the data analisis and helped in the data interpretation and moreover, did the proofreading and literature review references editing.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy have been completely observed by the authors.

ABBREVIATIONS

CEO	Chief Executive Officer
FL	Financial Literacy
FK	Financial Knowledge
FM	Financial Mathematics
HRC	Human Resource's Capital
II	Investors' Incentives
IC	Intellectual Capital
IM	Investment Motivation
MF	Mutual Funds

OECD	The Organisation for Economic Co-operation and Development
PFL	Personal Financial Literacy
TSE	Tehran Stock Exchange

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