# ANALYSIS OF RISK AND RETURN ON INVESTMENT OF LOCAL ENTREPRENEURS IN IRAN

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## ABSTRACT

*The purpose of this study is to analyse the risk and return on investment of local entrepreneurs in Iran because investment in any activity is associated with variables such as risk and return. This issue reveals the importance of entrepreneurship in rural areas. Investigating and controlling risk and return on investment in small entrepreneurial activities is one of the issues which improves returns and reduces the investment risk. For this purpose, descriptive-analytic research method is used to collect field data among 5770 entrepreneurial businesses in rural areas of Mashhad in Iran in 2015. The results showed that return on investment of sample entrepreneurs in rural areas is smaller than the average. That's why, in most cases, entrepreneurs are not willing to use rural environments for investment and they often try to establish businesses in urban environments or around the city because of lower investment risk and easier access to public services, governmental support and sales market.*

**Keywords**: Investment Risk, Return on Investment, Small and Medium-sized Entrepreneurial Activity, Factor Analysis.

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## Introduction

Generation of employment opportunities is considered as an important aspect for the stability of the rural economy which is necessary to develop rural areas due to economic and social problems. It is clear that in the absence of work and employment in rural areas, we cannot expect ample sustainable development. Given the importance of rural areas, experts consider entrepreneurship as the first step in the jobs creation. They believe that it plays a very important role and entrepreneurship should be considered as the most important factor of economic development of the country. Entrepreneurship is economic growth which is driven by knowledge and competition and has the possibility of having low economic interest in the primary stage, especially in rural areas. Therefore, nowadays the development of rural areas has a wider connection with entrepreneurship in comparison with the past. Villagers can release their inner abilities through entrepreneurship (Naude, 2013). With regard to the raised issue, it is clear that today in rural areas, poverty reduction and economic prosperity highly depend on accelerated and balanced growth in the development of entrepreneurship, and this is only possible through increasing investment in this sector (Saran et al, 2013). In fact, there is a constant principle in investment culture which states capital avoids risk, and tends toward efficiency (return) and profit (Lammers et al, 2010). That is why risk-averse investors in the entrepreneurial sector avoid investing where there is investment risk or uncertain path against their interest and principal (Somoye, 2013).

Potential investors and shareholders, creditors and those who use the benefits of small entrepreneurial firms are willing to know about the amount of liquidity and available working capital and relevant information to make decisions in entrepreneurial activities that affect investment return and risks. In other words, investment as a financial decision always consists of two components of risk and return; we can create various combinations of investment by exchanging these two components. On one hand, investors tend to maximise their investment interest; and on the other, they are faced with the uncertainty of the financial markets. The second factor faces investment interest with uncertainty (Diacon, 2004). In fact, entrepreneur-investor in rural areas should always ensure two things in process of investing: First, assurance of profitability and return on investment of the project; second, the assurance of the political, military, legal and cultural non-interference to provide capital in various forms. In fact, since capital is taken into consideration as a limited and precious resource in countries and in between investors, using it through local entrepreneurial activities is associated with high risk. For this reason, economists and investors want to reduce investment risk and increase efficiency (return) using an optimal path. Accordingly, investment in rural areas faces many challenges such as risk and low efficiency (return), in order to carry out entrepreneurial activities (Venkateswarlu and Ravindra, 2014). In fact, the amount of risk and return on investment has always been one of the major obstacles to the development of entrepreneurship in rural areas.

Given the importance of investment as an engine of economic development in entrepreneurship sector and due to increased population in rural areas and the need to create employment in rural areas, the most important issue is the efficient use of investment resources to prevent wasting it. Thus, it is essential that we identify the trend of return on investment of local entrepreneurs and its impact on the value added of this sector, in short, medium and long term periods; as it can help government, investors and institutions which provide monetary and financial facilities in guiding investment resources (Lipton, 2005). With regard to the issue raised, this study wants to understand how much is the amount of risk and return on investment in field of financial resources of entrepreneurship in rural areas? And what are the reasons for low return on investment in rural areas?

**Theoretical Foundations**

Entrepreneurship is the process of generating revenue for the others and create something new and valuable through links with production factors, and accompanies with major financial and time-risk tolerance. On this basis, entrepreneurship is considered as an important strategy for economic development in various sectors of the global community. Rural community is one of the sectors which has strongly attracted the attention of planners and policy-makers in the realm of entrepreneurship development in recent decades; because entrepreneurship and job creation in rural areas is considered as one of the most important solutions for rural development in terms of size and economic indicators. In fact, the dispersion

of economic development and small entrepreneur business must be pursued in a fair manner so that we can ensure the elimination of inequalities, and bring above integrated development at regional level, particularly in rural areas (Saxena, 2012). Entrepreneurship will have an effective role in improving the economy and livelihood of villages by creating new employment opportunities, income, innovation and prosperity (Wennekers and Thurik, 1999). Rural entrepreneurship can be defined as follows: identifying new opportunities for innovation and creativity in agricultural and non-agricultural activities, innovation and creativity in land use, improving the quality of life, helping people with lower ability to increase participation and in fact, it is the optimal, various and innovative use of resources for sustainable development in rural villages. Although entrepreneurship and small businesses have countless benefits, developing and launching entrepreneurships in country will face many difficulties and obstacles including:

1-    Market barriers, such as currency fluctuations, fluctuations in supply and demand and raising prices.

2-    Financial obstacles: The delay in receiving the proceeds from sale, investment risk, increasing pressure of liquidity on small and medium enterprises.

3-    Lack of access to various types of information including, marketing in domestic and foreign markets, information about financial situation and technology of small businesses.

4- The state policies such as the inability to create enabling environment for small and medium-sized businesses, administrative barriers and so on (Amid and Ghamkhari, 2009).

Financial and economic issues are the main problems in the field of entrepreneurship development. In this area, investment and ensuring sustainable return on investment and profitability are the most important discussions. In fact, investing is associated with high risk in various economic fields. Today, small and medium enterprises and companies operate in complex and changing environments. In this case, risk management is of high importance for small entrepreneurial enterprises in rural areas to achieve their goals and reduce adverse effects of volatility. Accepting risk is the nature of financial services and without accepting risk, they are not able to run a profitable business. Risk management is of utmost importance, given the nature of financial services. In fact, these institutions must manage the risks that they accept. So, there is an interstitial relationship between risk and investment and any kind of investment would be risky. In a general definition, it can be stated that "the risk of investment is the volatility of returns on investment". Investment risk as the name implies, include the risks of investment. Measuring the future value of the investment in order to use in calculations is one of the main areas of concern in every field, especially investments in new projects. This issue is formed as a result of the level of risk arising from the difference between expected and actual cash flows (Lefley, 1997). Although

different schools of economy including classic and Keynesian and neoclassical economics proposed a variety of ways and variables to estimate the investments, all of them emphasised the importance and impact of risk and return as a qualitative factor in investment decision-makings for launching small businesses. In general, any investment is based on two assumptions: first risk and second return on investment. According to the theory of rational action, a person establishes a new investment when a desirable level of risk and return is provided for him; otherwise, investments will not be optimal for him. In other words, efficiency and security are the two main factors in investment decision-makings (Mirzakhani and Nouri, 2013). In this regard, risk is the average of cost of unforeseen events during investment period. Entrepreneurs in rural areas should be familiar with various aspects of investment risk and also they must pursue livelihood opportunities because of return on investment. Financial risks and investment were various types including the following:

***Systematic Risk:*** Systematic risk is that part of risk that depends on general market conditions. The sources of systemic risk include changes in interest rates, the exchange rate of the national currency against foreign imperialism, inflation rate, monetary and fiscal policy, political conditions and so on. Any change in the above-mentioned factors affects the overall market conditions (Tehran Stock Exchange, 2010). In fact, the systemic risk is a difficult and accurate concept. In a report related to systemic risk issued in 2001 by ten countries, it was stated that systematic risk as the loss of economic value is

associated with an increased uncertainty about the effectiveness of the financial system at the beginning of the activity which demands a high level of confidence in investment.

***Unsystematic Risk:*** Unsystematic risk is only related to an asset. In fact, the risk is the result of specific activities and characteristics of the market which is controllable and reduction is possible; commercial, financial and liquidity are types of unsystematic risk.

In another category, we can define major resources which cause financial risks as follows:

***Credit Risk:*** Likelihood of loss due to inability to repay debt or to reduce credit

***Operational Risk:*** Likelihood of loss, based on individual performance.

***Legal Risk:*** Likelihood of loss resulting from legal issues and wrong interpretation of the law.

***Exchange Rate Risk:*** The exchange rate is not fixed; when a firm invests in international business, exchange rate risk can suffer large losses as a result of fluctuations in exchange rate because fluctuations are difficult to predict and measure (Napp, 2011). In fact, all investors who invest in global and international level, face exchange rate risk when turning a profit from global and international trade to currency of their country.

***Interest Rate Risk:*** This risk refers to changes in interest rates and can be viewed in different forms of investment. In fact, the earliest form of change in interest rate can be noted in the form

of short-term loans which results in high interest payments and reduces firm's financial income (Napp, 2011).

***Market Risk:*** This risk refers to changes in stock price due to changes in investors' views. Changes in investors' expectations are mainly due to political, social and economic events, but sometimes mental issues can cause these changes. Causes of this phenomenon are different, but most of it is because of the attitude of investors to the whole securities or part of it. In fact, liquidity is one of the major resources of risk for investors in the market, and it can be said that market liquidity has great effects on the stability of the financial system.

***Purchasing Power Risk:*** The risk is because of commodity price fluctuations in the market that sometimes become a major risk for the investor. This change in price related to financing could lead to liquidity or risk of rising debt. Purchasing power risk is the uncertainty of the purchasing power associated with received money. In other words, assuming that the expected rate of return on investment can be realised to what extent this rate can cover reduced purchasing power due to inflation in the society (Napp, 2011).

***Country Risk:*** Country risk is related to political stability of a country from economic and social aspects. This type of risk is seldom found in countries with high political and economic stability. Some countries have defined 22 separate indicators for risk of countries. Risks related to financial and economic issues are allocated 50 points among them. This shows the high

importance of risks in the field of financial and economic investment (Howell, 2011).

**Financial Risks:** Financing of a firm can be dangerous for various reasons. Choosing between a fixed and floating rate of debt as well as the duration of debt may be some of the mentioned risks. Long-term loans are financially adjustable and lead to shortage of cash flows over time less than short-term loans (Napp, 2011).

It is believed that risks are categorised as follows: He classified risk into three general categories including commercial, financial and political risks, and defined subsets for each of them (Table 1).

**Table 1: Influential Investment Risks**

| Risk Name | Risk Type | Risk Definition |
|---|---|---|
| Commercial Risk: Inherent factors of the project related to the market in which the project is involved | Commercial feasibility | A stable market for the product, existing and future competitors for the product, product pricing, predictability of the market, the ability of customers to purchase products |
| | Risk of project completion | The possibility of having needed resources to implement such projects such as financial resources and facility, the possibility of establishing |
| | Environmental risks | Factors related to environmental pollution |
| | Operational risks | Technological change, improper management of the project and increased operating costs |
| | Income risk | Changes in sales volume, change in cost of finished goods, change of selling price |
| | Risks of input resources | Delay in the arrival of raw resources, availability of raw materials, raw material, credit suppliers of raw materials |
| | The risks of force majeure | Sudden and unexpected changes because of political and security events |
| | Inconsistencies in the contract | The difference between the timing of execution of the contract and current costs |

*(Contd........)*

**Table 1 (Contd.....)**

| **Financial Risks:** Factors that are not related to the project itself, but are concerned with the environment in which the project is executed | Inflation | Items related to rising commodity prices |
|---|---|---|
| | Interest rate | Factors associated with increased interest |
| | Exchange rate | The factors related to changes of interest rate |
| **Political Risks:** Factors that are related to the decisions and policies of the State | Investment risk | Political and security events, instability of exchange rate |
| | Risks related to changes in law | Changes in laws and administrative regulations of the State |
| | Quasi-political risks | Cutting off cooperative relationships because of political and economic reasons or tarnished relationships |

**Risk of Investing in Small Entrepreneurial Activities**

One way to attract investment is to create a suitable environment for the security of investment. We can refer to the following examples: 1- Creating long-term economic and legal stability in a country where rights of investors are identified, protected and guaranteed. 2- Development of business infrastructure, including public and legal services to entrepreneurs. 3- Transparency of the State institutions and creating mutual confidence in the business environment. As mentioned before, risky investments are of high importance in the development of entrepreneurial activities. In fact, financing innovative activities related to technology development can be done through various mechanisms and the mechanisms depend on the circumstances and factors running

the economic system of the country. But, the risky capital is much more important in the country's economic system. Credit-financial mechanism is not a suitable way of financing because of the risks in the economic projects and innovative activities and long-term nature of return on investment of these activities (Mostahsan and Bagheri, 2003). The importance of financing technology development is mostly related to the risk appetite feature. Entrepreneurs who have new designs and creative ideas in mind and believe in economic success are usually stopped on their way due to lack of access to adequate financial resources. On the other hand, financing is very difficult through banks and other traditional channels of financing for risky projects based on advanced technologies (Jones and Kim, 2014). Rural areas are one of the areas in which the launch and development of small entrepreneurial

activities and investment take high risk. Given that these areas are located away from urban areas (they are known as a source of power and wealth in every respect); therefore, investment in the field of entrepreneurship are done more cautiously. In fact, most activities which are created for that purpose in these areas are known as micro activities with industrial purposes. Some of the barriers to investment in small rural locations include low quality satisfaction, ineffective use of funds received for business development which increase the risk of investing in small environment (Hincu et al., 2009). Investment risk also leads to disruption of investments and thus forms a competition between different areas and as a result, this will destroy the economic peace and interdependence. In rural areas, investments are often done by local people. But it should be noted that individuals show different behaviours when dealing with risk; in general, the behaviour of individuals is divided into three categories when dealing with risk: 1. Risk-taking individuals, 2. Individuals who are indifferent to risk and 3. Risk-averse individuals.

***Risk taking Individuals:*** These people are limited and they never retreat when they face investment risk.

***Risk-averse Individuals:*** Avoiding from risk is a general behaviour that most people do. A risk-averse decision maker prefers to choose a risk-free choice instead of a risky one, but with the same expected value.

***Individuals who are Indifferent to Risk:*** These people do activities without regard to risk. The person who is indifferent to risk has no priority between a risk-free choice and a risky one, with the expected value (Hekmat and Omrani, 2011).

## Return on Investment in Small Entrepreneurial Activity

Expecting returns or rewards on investments makes investors prefer future consumption to current consumption. Return is mostly used in order to introduce return on investment in a property during a period which is called return and is the price and cash flows changes of that asset during the period of investment. The rate of change is expressed in percentage which represents the percentage of investment value, and is called return on investment. Return on investment is a very important factor in making financial decisions for investment (Nafooti et al., 2013). Return on investment is the benefit and profit achieved from an investment. The principal approach is based on the assumption that investors take action in investment after analysing the economic and different situations of the country. Earnings are the best criterion for return on investment in economy. Since there are no profits from the investment in services and its sub-divisions, other criteria are used as substitute variable (Fotros et al., 2012). Criteria such as economic and market value added are criteria to determine return on investment and investor managers are a suitable alternative for profit. The period of return on investment is a criterion for selecting investment projects as investors avoid choosing long-time return projects due to capital depreciation. Knowing the amount of investment and investment timing are considered critical for

the manager and the owner of capital. Determining the return on investment of public, private sector activities can be used in contracts done by the private sector, and after a few years will be transferred to the infrastructure of the State.

## Related Literature

So far, many studies have been conducted on risk and return on investment in Iran and in the world. Each of the available studies refer to the aspects of risk and return considering different types of investments. Thus, in the realm of entrepreneurship, it is necessary that more detailed studies be done related to investment risk and returns in rural areas. This research has discussed about new opinion and the innovation of level of risk and return of investments in small entrepreneurial activities in rural areas which has been studied less in internal and external studies. Similar studies conducted with inside and outside resources are as follows:

A unit increase in investment risk indicator (composite risk), reduces private investment averagely to 0.22 billion in Iran. Nafooti et al., (2013) showed that economic factors affect systematic risk of investing in financial products, micro-economic factors affect the risk of non-systematic investment in financial products and non-economic factors affect the overall risk of investing in financial products. On the other hand, the non-economic factors of risk are negatively correlated with the willingness to take risk investments, historical return rate is positively correlated with the willingness to take risks and risk perception is positively correlated with expected return rate, and the rate of return is necessary for decision-makers in the capital

market such as firms listed on the stock exchange and financial institutions and individual investors. Bridge and ONeill (2012) show that awareness and caution in the field of financial and investing relationship lead to higher profitability. Mirzaee et al., (2011) found that the deterrents are classified into four factors: infrastructure, marketing, management and policy which explained 53.94 per cent of the total variance of the variables. It was also found that small entrepreneur's firms outside the farms played an important role in the diversification of economic activities and rural development. Hekmat and Omrani, (2011) show that insurance as a means of support can be a way to reduce the financial risk in the agricultural sector. But, it cannot be successful in reducing financial risks without the support of affiliated organisations. Sajjadi et al., (2013) showed that the variables of ownership concentration and management ownership have significant negative impact on the risk of investment, but managers of institutional stock ownership have no influence on the risk of investment. Boateng et al., (2014) showed that youth lack the understanding of investment. Lack of skills, support, market opportunities and not taking risk are considered as obstacles to entrepreneurship. Thus, it is recommended that the youth need to acquire enough skills to step forward for the development of entrepreneurship. Investigating the number of studies in the field of risk and return on investment from inside and outside resources show that different studies have been done and the common point in most studies include: factors which increase the risk and return on investment, weakness and lack of infrastructure, management, marketing network security, investment in the manufacturing sector, the

impact of the ownership structure and shareholders, investment security, lack of skills, lack of financial capability and market opportunities, which are known as the most important factors causing risk and attempts should be made to minimise them.

## Methodology

The purpose of this applied study is to evaluate risk and return on investment of entrepreneurship in rural areas of Khorasan Razavi Province, Iran in 2016. Descriptive-analytic method is used. Theoretical literature was collected using library-documentary information and field data were collected by means of interviews and questionnaires in the sample area. The population of this study consists of 3,300 local entrepreneurs of Khorasan Razavi Province. 330 local entrepreneurs were selected among the community due to the extensiveness and time consumption of sample population, based on Cochran formula and the error of 0.06 per cent. Given that the questionnaire is the main instrument for data collection; therefore, in this study, two standard questionnaires were used, including return on investment (Stone and Phillips, 2001) and financial risk of investments (Diacon, 2004). Collected data are in the form of following questionnaires (Table 2).

**Table 2: Indicators of Risk and Return on Investment**

| Indicator | Variable | Indicator | Variable | Indicator | Variable |
|---|---|---|---|---|---|
| **Investment risk** | Government support of small entrepreneurs | **Investment risk** | Uncertainty to invest in small businesses | Return on investment in the field of human resources | Development programmes to increase efficiency |
| | Legal support from small entrepreneurs | | Reluctance to invest in small business | | Allocated budget in the area of entrepreneurship education |
| | The high inflation rate | | Identification of possible losses | | Assessment and evaluation culture |
| | Immoral behaviour | | | | Positive changes |
| | Lack of risk-taking behaviour | | Loss of the initial capital | | Correct management |
| | Investment benefits | | Economic damage to the economy | | Investment |
| | Evaluation of information | | | | Correct leadership |
| | Returning less capital | | Economic damage to small entrepreneurs | | Satisfactory view |
| | | | | | Client's view |
| | Fluctuation of investment rates | | Feasibility of investment | | Positive competition of members |
| | | | High-pressure sales | | Having a strategic direction |
| | Risk of capital liquidity | | Receiving biased advice | | Having experience in entrepreneurship |
| | | | High taxes | | |

**Reference: (**Diacon, 2004; Stone and Philips, 2001).

Questionnaires are based on Likert scale. Validity coefficient based on Cronbach's alpha equals 0.83 (Table 3).

**Table 3: Calculation of the Validity of the Study**

| Indicator | Cronbach's alpha | The number of items |
|---|---|---|
| Return on investment in the field of human resources | 0.86 | 15 |
| Investment risk | 0.80 | 26 |
| **Total** | **0.83** | **41** |

**Reference:** Research findings.

Also, we calculated the averages derived from each of the indicators in the process of data analysis after obtaining responses to the questionnaires, using SPSS and T-test. Factor analysis was used by SPSS statistical software to calculate and analyse the information obtained.

**Findings**

Studying field data showed that most rural entrepreneurs (80.5 per cent) are male. Thus, major entrepreneurs are male due to environmental, cultural conditions and rural-social structures. In terms of age, most sample participants are (33.6 per cent) in the age group of 31 to 40 years. Associate and bachelor's degrees are the highest attainment (52.8 per cent) of education level which represents younger rural entrepreneurs. Therefore, we can state that investment risk in new entrepreneurial activities is more among rural youth than middle-aged and older ones. The most abundant work experience among local entrepreneurs is between 5 to 10 years at a rate of 26 per cent. The highest level of employment is less than 10 people due to the micro level of entrepreneurship. Also, in terms of exports, only 14 per cent of entrepreneurs export their manufactured goods.

Table 4 examines statistics and results related to the average obtained in both fields of risk and return on investment of entrepreneurial financial resources in local rural areas. As already mentioned, there is high risk with low return related to investment in entrepreneurial sector of local areas. In the following Table, the issue (risk and return on investments) has been confirmed in general. In fact, the data indicate that in most sample parameters, financial risk of investment is higher than the average which shows that investing in entrepreneurial field in rural areas is faced with a high investment risk. In other words, investment risk in economic and entrepreneurial activity is higher in rural areas. In general, it can be said that high risk is one of the main obstacles to the development of entrepreneurship in rural areas in terms of attracting investments, because most people in rural areas do not have ability to carry out such financial risks. This is because most people in villages do not have high financial support to take action in case of entrepreneurial failure. So, most risk takers in rural environments consist of youth who accept high risks and changes in economic environment due to hopeful spirits and take advantage of opportunities in rural areas.

**Table 4: The Percentage and Average of Investment Risk in Local Entrepreneurial Activities**

| Item | Very low | Low | Mean | High | Too much | Average |
|---|---|---|---|---|---|---|
| The uncertainty of the return on investment | 18.8 | 27.7 | 30.5 | 17.5 | 4.9 | 2.61 |
| Fear of dissatisfactory production | 14.2 | 38.5 | 28.6 | 14.5 | 3.7 | 2.54 |
| Ability to distinguish new production losses | 7.1 | 20 | 33.8 | 29.2 | 9.2 | 3.13 |
| Having voluntary risk | 4 | 13.2 | 23.7 | 37.2 | 21.2 | 3.58 |
| Awareness of investment risks | 1.8 | 12.3 | 31.4 | 42.2 | 11.7 | 3.49 |
| Financial professionals knowledge of risk | 2.5 | 9.5 | 30.5 | 48.9 | 8 | 3.50 |
| Controlling investment risk | 3.4 | 10.5 | 39.4 | 37.5 | 8.3 | 3.37 |
| Risk of capital loss | 10.2 | 17.5 | 36.9 | 28.6 | 6.2 | 3.03 |
| Productive investment losses | 24 | 25.2 | 28 | 17.8 | 4.3 | 2.52 |
| Predictability of investment losses by the investor | 10.2 | 20.6 | 34.5 | 28.6 | 5.2 | 2.98 |
| Feasibility of investing | 19.7 | 24.6 | 26.5 | 22.2 | 6.2 | 2.70 |
| The risk of selling production | 15.7 | 14.8 | 28.9 | 23.7 | 16.3 | 3.10 |
| Risk of product liquidity | 20.3 | 24 | 28.6 | 18.5 | 8 | 2.69 |
| Risk of capital liquidity | 5.2 | 23.7 | 35.1 | 24.9 | 10.2 | 3.11 |
| Tax expenses | 5.2 | 20.3 | 38.2 | 26.5 | 8.9 | 3.13 |
| Possible government support in critical condition | 6.2 | 23.7 | 40.6 | 24 | 4.9 | 2.97 |
| Legal support | 4.6 | 25.2 | 35.1 | 28.3 | 5.8 | 3.05 |
| The risk of loss of investment value due to inflation | 2.8 | 16 | 32 | 34.5 | 14.2 | 3.41 |
| Inaccurate competition | 6.5 | 20.3 | 32.6 | 31.4 | 8.3 | 3.24 |
| Moral hazard between different brands | 6.2 | 24.9 | 32.9 | 30.8 | 4.6 | 3.02 |
| Investment benefits | 1.5 | 24.3 | 36.3 | 31.7 | 5.2 | 3.14 |
| Investment control | 3.1 | 19.1 | 4 | 32.3 | 4.6 | 3.16 |
| Evaluation of production by buyers | 4 | 21.2 | 28.2 | 33.2 | 2.8 | 3.09 |
| Risk of losing the whole investment | 5.8 | 26.5 | 29.5 | 32.9 | 4.6 | 3.04 |
| The risk of failure to return the initial capital | 4.6 | 17.8 | 31.7 | 36.6 | 8.6 | 3.26 |
| The risk of investment volatility | 4.3 | 15.7 | 24.9 | 36 | 18.5 | 3.48 |

**Reference:** Research findings.

In the present study, factor analysis test is used to identify hidden variables of return on investment of entrepreneurs in the local area. First, KMO and Bartlett's statistic were calculated. A large amount of KMO confirms factor analysis of sample data. Calculations in SPSS showed that KMO for return on investment obtained 0.82.

Also, in this test, sig obtained smaller than 0.05. We can conclude that the correlation matrix has significant information and indicators of return on investment are not independent of each other. So, there are minimum requirements for factor analysis (Table 5).

**Table 5: Results of KMO and Bartlett's Test Related to Components of Financial Return on Investment in Local Entrepreneurial Activities**

|  | Eigen values | Return on investment |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy |  | 0.823 |
| **Bartlett's Test of Sphericity** | Approx. Chi-Square | 2092.193 |
|  | Degrees of freedom Df | 105 |
|  | Significance level Sig | 0.00 |

**Reference:** Research findings.

According to the Eigen values and the sum of squares of factor loadings in the matrix correlation, among 15 research variables, only five main factors were identified that its Eigen values were greater than 1, and totally they allocate 72.04 per cent of the variances. The first hypothetical factor with Eigen values 6.04 and accounted 35.37 per cent of the variances that represents this factor is much more important than others. In addition, an orthogonal factor rotation technique was used to increase interpretation of results and reduce overlap between them (Table 6).

**Table 6: Number of Factors Affecting Investment Returns with Eigen Values, the Percentage of Variance and the Cumulative Percent of Variance**

| Factors | Initial Eigen values | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
|  | Total | % of Variance | Cumu-lative % | Total | % of Variance | Cumu-lative % | Total | % of Variance | Cumu-lative % |
| First | 6.064 | 35.372 | 35.372 | 6.064 | 35.372 | 35.372 | 3.833 | 22.362 | 22.362 |
| Second | 2.137 | 12.469 | 47.841 | 2.137 | 12.469 | 47.841 | 2.708 | 15.798 | 38.160 |
| Third | 1.469 | 8.569 | 56.411 | 1.469 | 8.569 | 56.411 | 2.353 | 13.724 | 51.884 |
| Fourth | 1.448 | 8.448 | 64.859 | 1.448 | 8.448 | 64.859 | 1.968 | 11.478 | 63.362 |
| Fifth | 1.232 | 7.186 | 72.045 | 1.232 | 7.186 | 72.045 | 1.489 | 8.684 | 72.045 |

**Reference:** Research findings.

As can be seen in scree plot chart, among 15 sample items, only five factors have higher values than 1 in factor analysis which will be analysed in output (Figure 1).
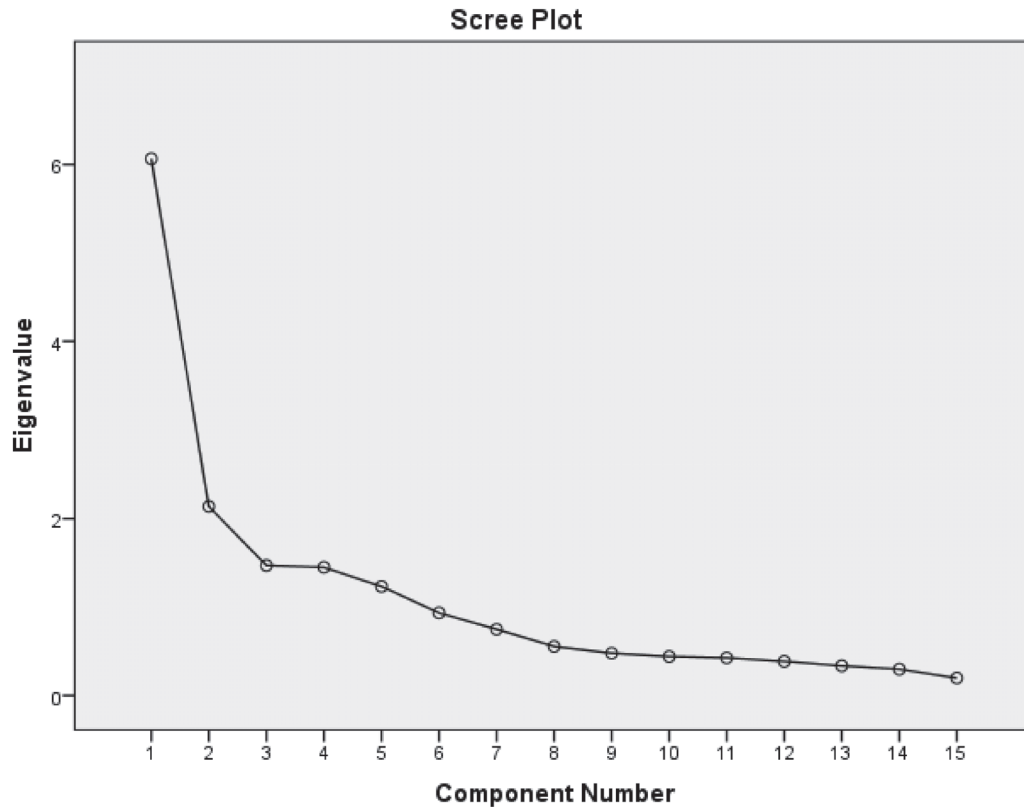


**Figure 1: Scree Plot Chart**

According to the results of factor analysis on 15 indicators of return on investment, only five factors were identified as main returns on investment, and the contribution of each of the factors will be determined which provides the possibility of naming them.Variables loaded can be named in five factors as follows.The role of management in investment returns gained 35.37 per cent of the variance of return on investment, assessing team member performance gained 12.46 per cent of the variance of the return on investment,investment in human resources gained 8.56 per cent of the variance of the return on investment, planning in the field of human resources gained 8.44 per cent of the variance of the return on investment, the profit and loss of investing in human resources gained 7.18 per cent of the variance of returns on investment (Table 7).

**Table 7: Naming Factors and Variables Loaded in Financial Return on Investment of Local Entrepreneurs**

| Variables attributed to factor | Correlation | Factor |
|---|---|---|
| Interest of local entrepreneurial management team to lead HR processes | 0.44 | Management role in the return on investment (Percentage of variance: 35.37, Eigen values: 6.04) |
| Image of member performance from the part of management | 0.68 | |
| Showing results of profit and loss of investment to clients by management | 0.86 | |
| Competition within the organisation to gain benefit | 0.91 | |
| Relating strategic processes of entrepreneurship development to each other | 0.88 | |
| Important role of Human Resources Unit in organisational changes of a business | 0.76 | |
| Having culture of assessment in the management of resources | 0.56 | Performance evaluation (Percentage of variance: 12.46, Eigen values: 2.37) |
| Creating major changes in small, entrepreneurial workshops | 0.95 | |
| Creating a good investment in measurement and assessment of resources | 0.87 | |
| Gaining experience and incurring damage in the past | 0.62 | |
| Bringing a new leader for resources | 0.41 | |
| Good status of investment in the field of human resources at the moment | 0.50 | Investment (Percentage of variance: 8.56, Eigen values: 1.46) |
| Considering a wide range of financial programmes related to human resources | 0.85 | Planning human resources (Percentage of variance: 8.44, Eigen values: 1.44) |
| Having a large budget and great interest in the field of planning and managing human resources | 0.83 | |
| Budget process of Human Resources and showing the fundamental value (profit and loss) of human resources processes | 0.96 | Profit and loss changes in HR processes (Percentage of variance: 7.18 Eigen values: 1.23) |

**Reference:** Research findings.

Factor analysis was used to identify hidden variables in the field of investment risk of small entrepreneurial activity in local areas. The amount of KMO statistics for variables of investment risk is equal to 0.677 which represents verification of factor analysis. Also, in this test, significance level sig is less than 0.005. We can conclude that the correlation matrix has significant information and indicators of investment risk are not independent of each other (Table 8).

**Table 8: The Results of KMO and Bartlett's Test Related to Components of Financial Investment Risk in Local Entrepreneurial Activities**

|  | Eigen values | Return on Investment |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy.0.677 | | |
| **Bartlett's Test of Sphericity** | Approx. Chi-Square | 1954.193 |
| | Degrees of freedom Df | 123 |
| | Significance level Sig | 0.000 |

Reference: research findings

According to the Eigen values and the sum of squares of factor loadings in correlation matrix among 26 research variables, only 9 major factors were identified which their Eigen values is more than 1 per cent and the variance percentage was greater than 4. These 9 factors totally allocate 66.22 per cent of variance. The first factor with Eigen values 3.80, allocate 14.63 per cent of variances which represents its higher importance than other factors. In fact, variables can be categorised into nine factors. Moreover, orthogonal rotation technique was used to name each factor with the aim of increasing effectiveness and reducing overlap among them (Table 9).

**Table 9: The Number of Influential Factors in Investment Risk with Eigen values, Percentage of Variance and the Cumulative Percentage of Variance**

| Factors | Initial Eigen values | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumu-lative % | Total | % of Variance | Cumu-lative % | Total | % of Variance | Cumu-lative % |
| 1 | 3.806 | 14.638 | 14.638 | 3.806 | 14.638 | 14.638 | 3.027 | 11.642 | 11.642 |
| 2 | 2.617 | 10.066 | 24.703 | 2.617 | 10.066 | 24.703 | 2.158 | 8.299 | 19.941 |
| 3 | 2.205 | 8.480 | 33.183 | 2.205 | 8.480 | 33.183 | 1.998 | 7.683 | 27.624 |
| 4 | 1.834 | 7.054 | 40.237 | 1.834 | 7.054 | 40.237 | 1.939 | 7.457 | 35.081 |
| 5 | 1.748 | 6.721 | 46.958 | 1.748 | 6.721 | 46.958 | 1.813 | 6.974 | 42.056 |
| 6 | 1.443 | 5.549 | 52.507 | 1.443 | 5.549 | 52.507 | 1.682 | 6.469 | 48.524 |
| 7 | 1.290 | 4.962 | 57.469 | 1.290 | 4.962 | 57.469 | 1.644 | 6.321 | 54.846 |
| 8 | 1.176 | 4.524 | 61.994 | 1.176 | 4.524 | 61.994 | 1.553 | 5.975 | 60.820 |
| 9 | 1.049 | 4.034 | 66.027 | 1.049 | 4.034 | 66.027 | 1.354 | 5.207 | 66.027 |

**Reference:** Research findings.

As can be seen in Scree Plot chart, (the chart below) among 26 sample items only nine factors gained value more than 1 in factor analysis, which will be analysed in output (Figure 2).
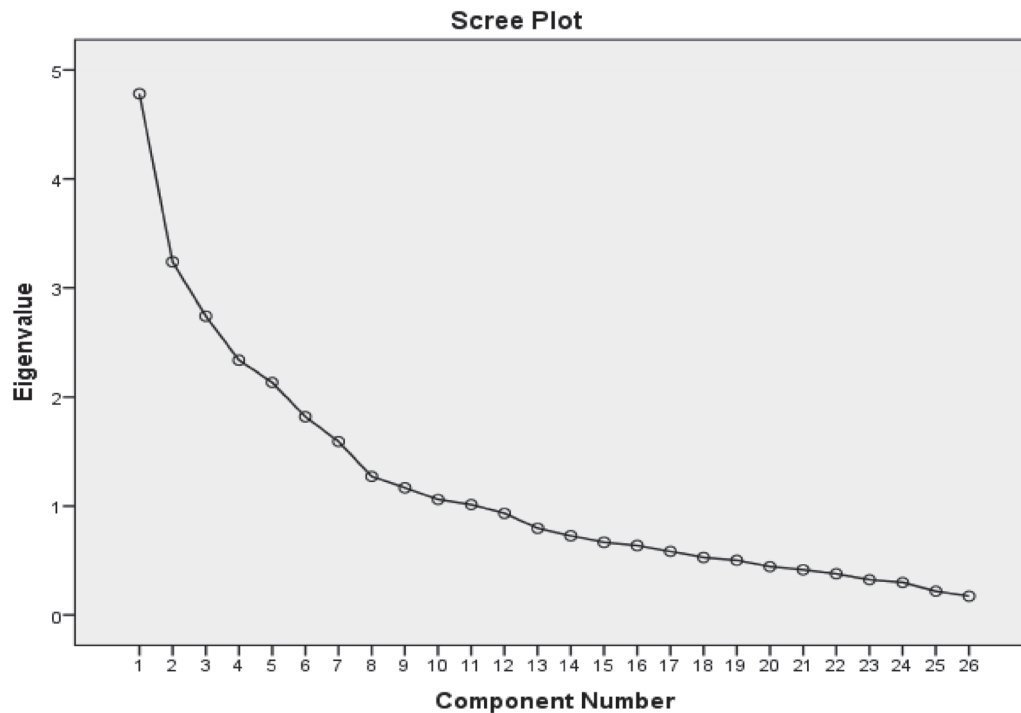


**Figure 2: Scree Plot Chart**

## Naming Factors

According to results obtained, the first factor predicting investment risk in local entrepreneurship is the ability to identify investment risk including five variables mentioned in Table 10 which accounted for 14.63 per cent of the variance. The second factor is the ability of entrepreneurs to invest including 5 variable mentioned in Table 7 which accounted for 10.06 per cent of the variances. Possible losses arising from investment in local entrepreneurship,  including 3 variables is the third factor which accounts for 8.48 per cent of the variances. The fourth factor is tax rates, including 1 variable, and accounts for 7.05 per cent of variance. The fifth factor is local problems of investing which includes three variables and accounts for 6.72  per cent of the variances. Protection of investors in entrepreneurship, the sixth factor includes 3 variables, and accounts for 1.54 per cent of the variances. The uncertainty of return on investment is the seventh factor which includes two variables and accounts for 4.96 per cent of the variances. The liquidity risk is the eighth factor which includes 1 variable, and accounts for 4.52 per cent of the variances.  Finally,  risk behaviour is the ninth factor that includes one variable and accounts for 4.03 per cent of the variances (Table 10).

**Table 10: Naming Factors and Variables Loaded in the Risk of Financial Investments of Local Entrepreneurs**

| Row | Variables attributed to factor | Correlation | Factor |
|---|---|---|---|
| 1 | The ability to identify investment losses | 0.84 | The ability to identify investment risks in local entrepreneurship Eigen value :3.80 percentage of variance: 14.63 |
| 2 | Encountering with voluntary risks | 0.88 | |
| 3 | The ability to acquire knowledge and information about investment risk | 0.75 | |
| 4 | Recognised investment risk for financial specialists | 0.69 | |
| 5 | The ability to control investment risk | 0.50 | |
| 6 | The amount of spending time to invest in this sector | 0.35 | The ability of entrepreneurs to invest Eigen value: 2.61 percentage of variance: 10.06 |
| 7 | Having information about commodity production | 0.48 | |
| 8 | The risk of loss of capital on behalf of the entrepreneur | 0.76 | |
| 9 | Return on investment less than expected | 0.78 | |
| 10 | Risk of investment volatility in this sector | 0.81 | |
| 11 | Risk of losing the initial capital of entrepreneur | 0.73 | The risk of losses resulting from investments in entrepreneurship Eigen value:2.20 percentage of variance:8.48 |
| 12 | The impact of investment losses in the sector on the economy | 0.87 | |
| 13 | Visibility of investment losses | 0.73 | |
| 14 | The high tax costs in this section | 0.62 | Risk of tax rate Eigen value: 1.83 percentage of variance:7.05 |
| 15 | Feasibility of investment | 0.72 | Risk associated with investment problems in entrepreneurship Eigen value: 1.74 percentage of variance:6.72 |
| 16 | High-pressure sales | 1 | |

*(Contd........)*

**Table 10 (Contd.....)**

| 17 | Risk of getting fanatical advice | 0.83 | |
|----|----------------------------------|------|---|
| 18 | Government support of entrepreneurs in case of making mistake | 0.64 | The risk of public and private support of entrepreneurs Eigen value: 1.44 percentage of variance:1.54 |
| 19 | Investment laws support of entrepreneurs | 0.70 | |
| 20 | Government awareness of the benefits of entrepreneurial investment | 0.50 | |
| 21 | The negative consequences of ownership | 1 | The risk of uncertainty of the return of the initial capital Eigen value: 1.29 percentage of variance:4.96 |
| 22 | Distrust of return on investment | 0.77 | |
| 23 | Risk of capital liquidity in short term | 0.73 | Risk of liquidity Eigen value: 1.17 percentage of variance: 4.52 |
| 24 | The risk behaviour among entrepreneur investors in local areas | 0.86 | Lack of risk behaviour in investment Eigen value: 1.04 percentage of variance: 4.03 |

Although investment risk is high among local entrepreneurs of villages, the data show that in the current situation, expected return on investment is lower. We used components of financial investment risk of entrepreneurship in local-rural areas and one-sample T-test in order to evaluate difference of the average obtained. The value of one-sample t-test in Table 12 shows that with a confidence level of 0.99 and an error level of smaller than 0.01, there is statistically significant difference between the average of indicators such as the uncertainty of return on the initial investment in entrepreneurship, the ability to identify investment risk, the impact of losses caused by investment in local entrepreneurship in the country, investment problems in entrepreneurship and problems in the economy. Significance level is higher than 0.05 in two indicators of public and private support and unfair behaviour on behalf of the investment companies which indicates there is no significant difference between the averages. Moreover, based on the results, the actual average value of the components of the uncertainty of the return on investment, impact of investment losses on the country, the problems in entrepreneurship and public and private support in entrepreneurship development is smaller than presumed average (3). The actual average of indicators such as identifying risks in the financial

investment of local entrepreneurs, problems in the economy, unethical behaviour by the investment firm and risk of losing the entire investment of entrepreneurs is greater than presumed average (3) (Table 11).

**Table 11: Examining the Status of Components of Entrepreneurship Investment Risk**

| Indicator | T-statistic | Degrees of freedom | Significance level Sig | Mean difference | 95%Confidence interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower limit | Upper limit |
| The uncertainty of the return of the initial investment in entrepreneurship | -7.986 | 322 | 0.00 | 0.41 | -0.5190 | -0.3138 |
| The ability to identify investment risk | 10.193 | 321 | 0.00 | 0.42 | 0.3423 | 0.5061 |
| The impact of losses caused by investment in local entrepreneurship in the country | -3.463 | 321 | 0.001 | 0.15 | -0.2467 | -.0680 |
| Investment problems in entrepreneurship | -3.322 | 321 | 0.001 | 0.16 | -0.2670 | -0.0684 |
| Problems in the economy | 2.668 | 321 | 0.008 | 0.12 | 0.0326 | 0.2158 |
| The support received from the public and private sector | 1.551 | 320 | 0.122 | 0.059 | -0.0159 | 0.1343 |
| Unethical behaviour by investment companies | 2.211 | 322 | 0.028 | 0.24 | 0.0266 | 0.4564 |
| The risk of loss of capital | 5.621 | 321 | 0.00 | 0.12 | 0.1365 | 0.2834 |

**Reference:** Research findings.

The finding proves that investment risk is higher among local entrepreneurs; however, in most cases risk factors are understandable and identifiable. However, it is not possible to control and manage due to financial resources, infrastructure, political and cultural limitations. Accordingly, fewer people tend to invest in entrepreneurial activities in rural areas, because there is likelihood to lose capital as a result of investment. Although the government has tried to support them by provision of infrastructure like electricity, water, gas, telephone, road building and lending loans, there is an increase in the fields of risk appetite for investment, but other problems and obstacles have not provided the possibility of such a risk. Also, according to the results obtained with confidence level of 0.99 and an error of less than 0.05, the results show

that there is a significant difference between the average value of all variables of return on investment in an average amount and the results of the mean difference confirms the difference. Also, checking the upper and lower limit obtained shows that the average of components such as management role in investment, performance evaluation of local entrepreneurs, planning in the field of human resources, and profit and losses of human resources are less than given average (3) (Tables 12 and 13).

**Table 12: The Calculation of Average and Standard Deviation of Return on Financial Investment in Local Entrepreneurial Activities**

| Components | Average | Standard deviation |
|---|---|---|
| The role of management in investment | 2.88 | 0.082 |
| Performance evaluation | 2.77 | 0.079 |
| Planning in the field of human resources | 2.68 | 0.091 |
| Profit and loss on human resources processes | 2.92 | 0.092 |

**Reference:** Research findings

**Table 13: Examining the Status of Components of Return on Investment of Local Entrepreneurship**

| Indicator | T-statistic | D.f | Sig. | The mean difference | Confidence interval 95% | |
|---|---|---|---|---|---|---|
| | | | | | Lower limit | Upper limit |
| The role of management in investment | -3.858 | 320 | 0.00 | 0.17 | -0.2681 | -0.0870 |
| Performance evaluation | -5.016 | 323 | 0.00 | 0.22 | -0.3085 | -0.1347 |
| Planning in the field of human resources | -6.243 | 322 | 0.00 | 0.31 | -0.4173 | -0.2173 |
| Profit and loss of human resources | 9.483 | 324 | 0.00 | 0.57 | 0.4536 | 0.6910 |

**Reference:** Research findings.

The results show that there is a difference between the samples in terms of components of return on investment. This suggests diversity of management patterns and planning of return on investment among local entrepreneurs. But the important thing is that entrepreneurs pay little attention to the return on investment components. This will lead to the failure of local entrepreneurs in the short-term. Many examples of it can be observed in the sample area. In the early years of activity, they face entrepreneurial failure due to not improper returns. In the present study, factor analysis is used to evaluate the internal correlation, and to categorise the components of financial risk and return on investment of entrepreneurs at the local level into several limited and influential factors, and to explain the amount of variance by each factor. The aim of factor analysis is to reduce the number of variables to make the analysis samples.

## Conclusion and Recommendations

Investment in macro-economics is of particular importance because after consumption, it forms the second large component of total demand function. On the other hand, in spite of consumption that is more stable, investment has a changing nature, and is extremely sensitive to environmental factors. Based on return on investment approach, investments are done in certain environments such as cities, industrial towns, beaches and important harbours if there are economic opportunities in the same geographic places and spaces. Rural environments are considered as environments in which we can find economic opportunities and they are known as intact economic environments in Iran. In recent years, entrepreneurial investment in some rural areas is ongoing due to the opportunistic entrepreneurs who are native people. Business owners are mainly looking to attract capital due to the lack of initial capital to set-up entrepreneurial activity. Thus, entrepreneurs try to attract domestic and foreign investments for development in various ways. Although in some cases, firms start high-risk investments with the hope to obtain high efficiency, in general, investment process is not compatible with risk and danger. In developing countries such as Iran, because of problems in rural areas, investment in micro-enterprise development is associated with challenges and risks; and more investments are done in urban and suburban areas because of the lower risk of investing in these areas and the probability of high return on investment. This study analyses the risk and return on investment of micro

entrepreneurs in rural areas. The results indicate a high risk investment in the field of micro and small-scale entrepreneurs which is considered as one of the major challenges to develop local entrepreneurship. Development of entrepreneurship in rural areas needs a lot of financial resources, but investment operation has been interrupted due to the high risk in rural areas. In other words, the findings suggest that most investors are reluctant to invest in entrepreneurship in rural areas of the country. They believe that investing in rural areas lead to high risk, and its return is very low or accessible only in the long run. Local entrepreneurs with small capital are the most active entrepreneurs in the rural environment. These people take action in entrepreneurial investment despite bring aware of likely high investment risk of entrepreneurial businesses. Although the likelihood of achieving suitable economic return for them is unpredictable in the short-term, mostly these people are looking for minimum profit. Although, the government has provided infrastructure support such as water, electricity, gas, communications and loans in recent years, local entrepreneurs do not have the power to compete with outside entrepreneurs due to other problems such as distance from markets, difficult access to raw materials, low production volumes. This results in most entrepreneurs earning less economic return and entrepreneurial failure. If they continue to work, they cannot develop and compete with entrepreneurs of cities and industrial areas located in the country. The result confirms the results of Nafooti et al., (2013) studies. The results of the study confirm

that for most sample indicators, the averages are higher than the mean rate in investment risk perception. Thus, in order to reduce investment risk and increase return on investment for local entrepreneurs, the following suggestions are offered:

- Increase government support for entrepreneurs' investment in rural areas.

- Marketing training courses for sending products to market for sale.

- Management financing courses of make them aware of rural area management should introduce and should work on better managing financial activities.

- Short-term and long-term loans with low interest to encourage investment by local entrepreneurs.

- Attracting external capital in order to reduce financial difficulties in the process of local entrepreneurship.

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