



Designing a Path Analysis Model of Institutional Factors Affecting the Development of Entrepreneurship (Case Study: Nesa Rural Area in Karaj County)

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Abstract

Purpose- The goal of this research is to identify institutional variables affecting entrepreneurship in Nesa rural Area in Karaj County.

Design/methodology/approach- This is a fundamental, applied research that uses a descriptive survey method for data collection. The statistical population of the research comprises the residents of Nesa Rural district. The sample size was calculated using Cochran's formula ($n = 216$) and its distribution among the villages was proportional to the number of households in each village and the sampling was conducted using a simple random method. The research instrument is a researcher-designed questionnaire. In this research, the confirmatory factor analysis method was used to assess the validity and reliability of the questionnaire, and the partial least squares path analysis method was adopted to test the conceptual model of the research. The relationship between the variables was measured with the Pearson correlation test.

Findings- The findings of the research on the state of entrepreneurship suggest that self-employment driven by a small family business approach, mostly without innovation, has been the predominant entrepreneurial activity in the study area. The results of the conceptual research model showed that the institutional variables of economic stability, transparency and accountability, and educational system and skills training have the most direct impact on the state of rural entrepreneurship. The analysis of fit indices of the model revealed that the coefficient of determination for the dependent variable of the rural entrepreneurial status was 0.683. Accordingly, the independent and mediating variables of the model can explain 68.3% of the variance in the rural entrepreneurial status, indicating the explanatory power of the model.

Practical implications- The results of the research suggested that rural entrepreneurship is in a deplorable condition and despite the direct and indirect effects of institutional variables on rural entrepreneurship, institutional factors play a weak and inefficient role in rural areas. Hence, it is necessary to pay attention to the role of institutional factors such as political stability, enforcement of the rule of law among citizens, control of corruption, and payment of rewards in proportion to the endeavors and creativity of individuals to promote rural entrepreneurship.

Keywords- Institutional variables, Entrepreneurship, Nesa rural area, Karaj County.

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1. Introduction

In the past two decades, the concept of rural entrepreneurship has undergone fundamental and methodological changes. In this development, the role of man in economic development has come to the fore, and by changing the view of space from a merely physical area to a dynamic system of relations including the activities of local and social actors and institutional capital, the assumption that space is created by history, tradition and local communities has come into consideration (Kulawiak et al. 2022).

In this sense, it is driven by completely sectoral issues (macroeconomics) that are related to the impact of emerging economic activity on the development of rural areas or the study of economic trends in light of econometric models. Methods have shifted towards regional approaches, mainly disclosing the resources of the territory and the characteristics of the entrepreneurs working there, such as the actions of local actors, local entrepreneurial behavior, the roots of rural entrepreneurs, and their demographic and psychosocial characteristics (Dennis 2006; Newmeyer 2012).

In this sense, emphasis on the role of the local environment in the entrepreneurial process and the importance of endogenous factors in the socio-economic development of rural areas has given rise to two approaches "entrepreneurship in rural areas" and "rural entrepreneurship" (Gaddefors, 2019). The first concept only denotes the location of companies in the village or rural areas. In this approach, the entities are located in the rural area and they only exploit rural resources without profiting the local people. The conditions result in the disintegration of the economy of rural areas and render the local flows of materials and capital less important, thus encouraging the arbitrary exploitation of rural resources (Korsgaard et al., 2015). The second approach adopts a broader semantic context and deals with companies that are not only located in a rural area but also embody a "pure" form of rural entrepreneurship. This means that entrepreneurs use the resources of the rural (local) environment while creating products and services, and their activity is the source of countless benefits for this environment (Pato 2020). Moreover, in rural entrepreneurship, the

local resources not only determine the nature of the activity, but also shape the entrepreneurial process as well (Baumgartner et al. 2013).

Hence, in the second approach, entrepreneurs are not only physically present in the rural space, but also attached to the place (embedded/rooted in it); that is, they have a good understanding of the characteristics of the rural environment which can come in handy in the entrepreneurial process (Baumgartner et al. 2013; Korsgaard et al. 2015). Therefore, rural entrepreneurial activities denote a special type of participation of entrepreneurs in the local social and economic environment and are connected to the participation of residents and their knowledge in creating these companies. In this sense, rural entrepreneurship cannot be established elsewhere without losing its previous character due to the "locality" of the settlements. Rural entrepreneurship is also defined as a special blend of endogenous factors that creates value for entrepreneurs and the entire rural community (Korsgaard et al. 2015). It is because it is shaped under the influence of an institutional framework in the rural community and stems from specific cultural, social, political and economic values of the rural environment and if the institutional environment is prepared for entrepreneurial activities and supports the property rights of workers, it will usher in productive entrepreneurship and bolster the economic prosperity of rural areas. Therefore, given the nature and structure of rural entrepreneurship, identifying institutional factors affecting the development of this type of entrepreneurial activity is essential. In fact, the institutions have a bearing on rural entrepreneurs by creating regulatory and social conditions and supporting social entrepreneurs to strengthen innovations in vulnerable areas (Lang and Fink 2019).

Studies by "Douglas North" (1990, 1994, 1997) and "William Baumol" (1990) suggest that there is a direct connection between the institutional environment and the development of entrepreneurship. According to North (1990), institutions constitute the rules of the game in society. If the game rules are determined by non-productive activities, it is only natural that entrepreneurs lose their passion and motivation to enter productive activities. As such, Baumol (1990) divides entrepreneurship into three types: productive, unproductive and destructive. Weak

formal and informal institutions will foster opportunistic behaviors. Since the dearth of clear rules of the game and uncertainty will urge people to seize all opportunities to their advantage, under such an institutional environment, rent-seeking and corruption (unproductive and destructive entrepreneurship) will encourage non-productive economic activities. (Samadi., 2019).

To North, institutions are "man-made constraints that shape political, economic, and social interaction" (North, 1990). North splits institutions into two categories: formal and informal institutions, contending that the former encompass political, legal and economic systems and other systems established by the government to regulate the behavior of individuals (property rights, contracts, procedures, political structure, etc.). These formal institutions can help eliminate market defects (North, 1990). While informal institutions guide human behavior and decision-making processes, informal institutions are made of contracts, norms, values and accepted ways of doing things, whether economic, political or social. These institutions are embedded in culture and traditional social practices that can be equally binding and influential (North, 1997).

Acemoglu puts the institutions into two categories, inclusive and exploitative institutions based on their nature, arguing that inclusive institutions safeguard property rights and encourage investment in new technologies and skills. On the other hand, exploitative institutions are often constructed to extract resources from the majority of society for the benefit of small cliques and fail to protect property rights and provide incentives for economic activity (Afrakhteh, 2018).

In this regard, North argues that institutions that define and enforce property rights affect economic performance as they bring down transaction costs and uncertainty triggered by transactions. Thus, growth theory is incomplete without the theory of institutions. Enforcement of property rights is more important in the new economy where "property" comprises plans and ideas that are easily appropriated (North, 1990).

There is no doubt this institutional structure is feasible within the rule of law. The rule of law enables entrepreneurs to optimize their unique skills and knowledge. Because, under the protection of private ownership law, it deters arbitrary and incompatible unproductive activities

by powerful institutions and individuals. As such, laying the foundations of a suitable trust environment for business can inspire entrepreneurship (Harper, 2003).

Studies on the role of institutions in the development of entrepreneurship in rural areas exhibit that entrepreneurship in these areas offers special opportunities and incentives to carry out a diverse range of production (Korsgaard et al., 2015). However, the socio-economic and institutional conditions in which entrepreneurial activity takes place are distinct from urban areas. In this sense, Krugman and Venables (1995) underlines the importance of governance to overcome the socio-spatial deficiencies inherent in rural entrepreneurship, contending that the failure of entrepreneurial activities in rural areas is induced by traditional government policies in many countries worldwide. Generally, all forms of entrepreneurship have a spatial dimension and are based in places with the strongest economic incentives in terms of land, labor, infrastructure and other social and economic aspects (Korsgaard et al., 2015).

This research looks into the role of institutions in the development of entrepreneurship in the rural area of Nesa. This area, located in the tourist area of the Karaj-Chelos Road, has favorable climatic and environmental conditions, with huge potential in the economic and social domains of rural areas. In recent years, however, due to failure to account for the requirements of sustainable development and to lay a fertile ground for employment in rural areas based on an entrepreneurial approach, it has not been able to retain the residents of rural areas. This, especially with the extensive change in agricultural land use, the unbridled expansion of urbanization, and the destruction of the identity and characteristics of local and rural communities, has led to unbalanced development and compromised production and employment processes in this area. In this vein, this research aims to identify the institutional variables affecting rural entrepreneurship, and to explain the factors that stimulate the development of entrepreneurship in rural areas from an institutional perspective. Since increased production and employment and the growth of economic enterprises in rural areas call for a suitable ground to properly direct and guide resources, it is necessary to identify important institutional variables and structures that can

contribute to the improvement and promotion of entrepreneurship in rural areas. Therefore, the main research question is as follows: From an institutional point of view, what variables affect the state of rural entrepreneurship development?

2. Research Theoretical Literature

This research draws on the institutional theory. The pioneering literature in this field, driven by the theories of Douglass North (1992) stresses that institutions are the cornerstone of change. He also argues that most of the incentives that guide entrepreneurial behavior rely on the quality of institutions. Therefore, institutions can be defined as "the rules of the game in society or, more accurately, the constraints that shape human interaction" (North, 1990).

In 1991 Douglass North published a paper titled "Institutions" in the Journal of Economic Perspectives. This article sums up the gist of his previous work on economic and institutional change. North defines institutions as "man-made constraints that shape political, economic, and social interactions." North states that constraints are introduced as formal rules (constitutions, laws, property rights) and informal constraints (taboos, customs, traditions, rules of conduct) that usually help maintain order and security in the market. Their effectiveness is a variable of many conditions, such as the limited coercive power of a state, the absence of an organized government, or the power of religious orders (North, 1991).

North (1990) asserts that formal institutions are there to reduce transaction costs while informal institutions are intended to mitigate uncertainties in human interactions. North (1990) has also contended that informal institutions originating from culture may hamper changes and improvements in formal institutions or vice versa. Therefore, interactions between formal and informal institutions yield results that have major implications for increasing "productive" entrepreneurial activity. (Baumol, 1990; North, 1990)

North maintains that the economic development of communities begins with local transactions in the village. In this regard, specialization "is at its basic level and self-sufficiency is characteristic of most rural households". Rural trade is on a small scale and in dense social networks with informal restrictions, which facilitates local transactions and has a relatively low transaction cost. However, this

confined market diminishes the potential for specialization and raises production costs. In this dense network, "people are in intimate relationships with each other, and the threat of violence is a constant force to maintain rule and order" (North, 1991). As local transactions grow, the market develops beyond the village to more interconnected areas. When the participants in a transaction are more socially distant, it calls for more explicit terms of the transaction. This requires to increase the transaction costs of institutions that can lower the risks of fraud. As specialization grows, production costs fall, which in turn can justify higher transaction costs (North, 1991).

North further clarifies that all transaction costs are rooted in information asymmetry between the parties to the transaction. Since these costs are a major obstacle to economic growth, the main function of political and economic institutions is to control and contain them, chiefly through fraud, theft, and other socially harmful behaviors. However, the rulers of the political system have built these institutions in such a way as to maximize their personal interests rather than the social good. Thus, transaction costs are not always minimized by such institutions (North, 1992).

North states that individuals and organizations make their decisions based on flawed ideologies, which reflect the "mental constructs" governing the way the world works. Thus, despite their best efforts, politicians founding these institutions will occasionally fail to maximize their self-interest. In this case, entrepreneurs who believe that institutional change will be in their interest enter the political arena to apply this change.

North argues that this change will typically be slow for two reasons:

First: by controlling political systems, powerful actors have built institutions for their own benefit, and therefore they are reluctant to change. As a result, there will be path dependence.

Second: informal institutions, such as social customs and traditions, and cultural practices, by their very nature, are resistant to change, but they have a role in determining transaction costs (North, 1992).

North postulates that the distribution of wealth and income in society, which is manifested in the light of cooperation and competition between people and its executive systems, can be theorized as two

theories of government and property rights. In the theory of property rights, the stronger the monopolistic security of property rights, the more efficient the incentive structure is, and the more affordable the cost of invention and innovation is for the individual, the more they are inspired to introduce innovation (RezaGholi, 2019). This may transpire in the reverse condition as well. Thus, "if the highest yields in an economy come from piracy, we can expect organizations to invest in skills and knowledge that make them better pirates" (North, 1990).

Therefore, in the systems where informal and non-productive activities yield higher revenues and profitability compared to productive activities, it will likely offer an intriguing reward in the related investment and draw the labor force and investment to that profession. On the other hand, it keeps the creative and innovative workforce and capital away from productive activity (Afrakhteh, 2018).

In the theory of government, North argues that the tendency of all governments to develop inefficient property rights and provoke instability is inherent. Nonetheless, such a government, analogous to the governments in developed countries, is actually a merchant government.

The merchant government provides services (such as security, justice, and law) with an economy of scale, although it may be costly; however, from a certain point, it not only covers the cost but also offers considerable benefits for the government and society. On the other hand, the exploitation state is a rapacious state that defines and determines the general property rights that maximize the revenues of those in power, irrespective of its consequences for the wealth of the society as a whole. In this situation, the cost of proceedings surges and leads to the looting of resources and property rights will be rendered void (Rezaghali, 2019)

A survey of the dimensions of institutional theory in the field of rural entrepreneurship studies shows that the subjects related to the role of institutions and governance have gained prominence. As far as governance is concerned, studies suggest that the role of the government should be focused on overcoming the structural obstacles of rural entrepreneurship (Futemma et al. 2020). Research shows that governance is also manifested in the level of cooperation and participation of citizens,

for the greater involvement of communities would foster entrepreneurship (Joshi et al. 2019) and help to alleviate poverty (Nambiar, 2019). The interrelationship between governance and institutions is associated with the interactions of the entrepreneur and the environment (Deng et al. 2020), the integration of local institutions and a confining institutional environment (Kumar et al. 2020), and horizontal and vertical relationships (Lang and Fink 2019). Then, formal and informal institutions should be considered in the analysis, alongside government policies and interventions. As such, there is a need to better understand the rural context, in particular, the value system and traditions of entrepreneurs and the society in which they operate. Studies in developing countries have revealed that in many societies, individual work is preferred over collaborative labor. This can be attributed to various reasons such as a lack of trust in institutions, and third parties and disapproval of economic models that are oblivious to the realities of the territories (Tabares et al. 2021). Accordingly, it is essential to address entrepreneurial action with a view of territories (Joshi et al. 2019) and environmental conditions. It is because these exogenous factors can enable or inhibit successful entrepreneurship (Baskaran and Mehta 2016). Hence, further research is warranted to investigate the role of institutions and governance in rural entrepreneurship.

In light of the above, by reviewing studies on the role of institutions in the development of rural entrepreneurship, it seems that the bulk of these studies focus on policy-making, rural governance, innovation and social, psychological and individual characteristics. Therefore, considering the role of production and employment policies. entrepreneurship at the local level will be inevitable. In the meantime, the role of effective institutional factors in the development of rural entrepreneurship, including policymaking and local cooperation in the form of supporting effective property rights, as a key institutional means for the development of rural entrepreneurship, can lay the ground for the economic prosperity of the rural areas.

3. Research Methodology

3.1 Geographical Scope of the Research

Nesa rural area is located to the north of Karaj county in the Asara district. Asara district consists of 3 Rural district named Aderan, Asara and Nesa

and consists of a total of 62 villages, of which 47 are home to more than 20 households. According to the 2015 Census, Nesa comprises 17 villages with a population of 5064 people, of which 2459 are female and 2605 are male. In fact, approximately 48.5% of the population of the above villages are women and the other 51.5% are

men. There are 15 villages and demographic centers with more than 20 households in this area. Velayat Roud village with 1382 people and 458 households is the most populated village in this county and includes 27.2% of the population of the Rural district

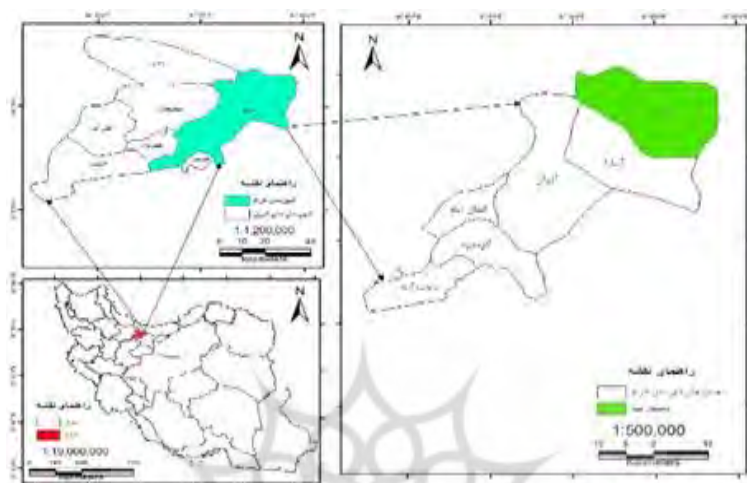


Figure 1. Geographical location of the study area

3.2. Methodology

This is a fundamental-applied study that uses a descriptive survey method for data collection. The statistical population consists of the residents of Nesa village in Karaj, which is home to 678 households. The sample size was calculated using the Cochran formula ($n = 216$) and its distribution among the villages was proportional to the number of households in each village. Sampling was also conducted using a simple random sampling method. The research instrument was a researcher's designed questionnaire, which was developed based on a review of Persian and English literature and comprised three major parts. The first part contains 20 items that explore individual and demographic characteristics. The second, the analysis of the state of rural entrepreneurship, consists of 35 items, and the third part, institutional factors affecting the development of rural entrepreneurship, includes 102 items, the results of which are outlined in Tables 1 and 2. In this research, to assess the content validity of the questionnaire, it was handed over to three professors and experts and they were asked to state

their views on the indicators and items of the questionnaire. After collecting their comments and feedback and adjusting some items, the final draft of questionnaire was designed. In the next step, the validity and reliability of the questionnaire were checked using confirmatory factor analysis. The measurement model was checked with t-statistics and standard coefficients. The t-statistic over 1.96 means that the observed relationship is confirmed at a confidence interval (CI) of at least 95% ($p < 0.05$). T-values reveal that all the relationships of the model are statistically significant ($p < 0.05$). In this study, a minimum factor load of 0.4 was considered to confirm the validity of the items. The reliability of the questionnaire was measured by Cronbach's alpha and composite reliability methods. It should be noted that some items ($n=32$) were removed from the model due to weak factor loading (< 0.40). Also, in this research, the partial least squares in path analysis were used to test the conceptual model, and the relationship between variables was measured by Pearson's correlation test.

Table 1. Variables affecting the state of rural entrepreneurship

| Dependent variable | Variable | Item No. | Standard coefficient (loading) | t-value | Average variance extracted (AVE) | Composite reliability | Cronbach's Alpha |
|------------------------|------------|----------|--------------------------------|---------|----------------------------------|-----------------------|------------------|
| Rural entrepreneurship | Individual | 2 | 0.62 | 3/50 | 0.30 | 0.72 | 0.63 |
| | | 3 | 0.51 | 2/33 | | | |
| | | 4 | 0.41 | 1/97 | | | |
| | | 5 | 0.63 | 3/85 | | | |
| | Social | 8 | 0.42 | 3/98 | 0.39 | 0.75 | 0.68 |
| | | 11 | 0.65 | 8/63 | | | |
| | | 12 | 0.55 | 5/33 | | | |
| | | 13 | 0.73 | 14/66 | | | |
| | Economic | 16 | 0.72 | 11/65 | 0.47 | 0.86 | 0.80 |
| | | 18 | 0.74 | 12/34 | | | |
| | | 19 | 0.74 | 10/58 | | | |
| | | 20 | 0.71 | 9/67 | | | |
| | | 21 | 0.83 | 28/23 | | | |
| | | 22 | 0.73 | 17/98 | | | |
| | | 23 | 0.44 | 7/63 | | | |
| | Political | 24 | 0.52 | 9/56 | 0.47 | 0.86 | 0.80 |
| | | 25 | 0.78 | 25/58 | | | |
| | | 26 | 0.80 | 27/11 | | | |
| | | 27 | 0.48 | 4/93 | | | |
| | | 28 | 0.78 | 29/96 | | | |
| | Cultural | 29 | 0.69 | 12/23 | 0.57 | 0.89 | 0.85 |
| | | 30 | 0.70 | 15/22 | | | |
| | | 31 | 0.74 | 20/59 | | | |
| | | 32 | 0.78 | 28/94 | | | |
| | | 33 | 0.79 | 33/50 | | | |
| | | 34 | 0.74 | 19/46 | | | |
| | | 35 | 0.76 | 23/74 | | | |

Sources: Test results

Table 2. Institutional Variables Affecting Rural Entrepreneurship

| Dependent variable | Variable | Item No. | Standard Coefficient (Factor loading) | t-value | Average variance extracted (AVE) | Composite Reliability | Cronbach's Alpha |
|-----------------------|--------------------|----------|---------------------------------------|---------|----------------------------------|-----------------------|------------------|
| Institutional factors | Economic stability | 4 | 0.45 | 6/34 | 0.29 | 0.92 | 0.91 |
| | Rule of law | 5 | 0.43 | 7/15 | | | |
| | | 6 | 0.48 | 7/12 | | | |
| | | 7 | 0.49 | 7/91 | | | |
| | | 8 | 0.66 | 11/02 | | | |
| | | 9 | 0.77 | 26/75 | | | |

| Dependent variable | Variable | Item No. | Standard Coefficient (Factor loading) | t-value | Average variance extracted (AVE) | Composite Reliability | Cronbach's Alpha | | | |
|--------------------|------------------------------|----------|---------------------------------------|---------|----------------------------------|-----------------------|------------------|------|------|------|
| | | 10 | 0.52 | 10/01 | 0.61 | 0.88 | 0.84 | | | |
| | | 11 | 0.82 | 33/96 | | | | | | |
| | | 12 | 0.73 | 16/35 | | | | | | |
| | | 13 | 0.48 | 5/83 | | | | | | |
| | | 14 | 0.75 | 25/57 | | | | | | |
| | Judicial independence | 16 | 0.49 | 8/59 | | | | | | |
| | | 17 | 0.66 | 13/43 | | | | | | |
| | | 18 | 0.60 | 12/94 | | | | | | |
| | Control of corruption | 19 | 0.77 | 21/04 | | | | | | |
| | | 20 | 0.44 | 6/32 | | | | | | |
| | | 21 | 0.72 | 22/99 | | | | | | |
| | | 22 | 0.41 | 5/75 | | | | | | |
| | | 23 | 0.52 | 8/55 | | | | | | |
| | | 24 | 0.53 | 7/97 | | | | | | |
| | Physical property rights | 26 | 0.79 | 26/91 | | | | | | |
| | | 27 | 0.81 | 33/60 | | | | | | |
| | | 28 | 0.82 | 36/01 | | | | | | |
| | Intellectual property rights | 29 | 0.68 | 14/34 | | | | | | |
| | | 32 | 0.77 | 18/31 | | | | | | |
| | | 33 | 0.56 | 7/24 | | | | | | |
| | | 34 | 0.54 | 5/32 | | | | | | |
| | Economic stability | 74 | 0.77 | 16/61 | | | | | | |
| | | 76 | 0.70 | 15/23 | | | | | | |
| | | 77 | 0.69 | 12/80 | | | | | | |
| | | 78 | 0.78 | 26/37 | | | | | | |
| | | 79 | 0.84 | 35/34 | | | | | | |
| | | 80 | 0.88 | 51/91 | | | | | | |
| | | 81 | 0.85 | 44/41 | | | | | | |
| | Reward system | 82 | 0.66 | 10/47 | | | | 0.34 | 0.74 | 0.64 |
| | | 83 | 0.61 | 7/91 | | | | | | |
| | | 84 | 0.82 | 33/23 | | | | | | |
| 85 | | 0.87 | 37/73 | | | | | | | |
| 87 | | 0.76 | 12/07 | | | | | | | |
| 35 | | 0.67 | 13/00 | 0.23 | 0.90 | 0.88 | | | | |
| 36 | | 0.79 | 21/24 | | | | | | | |
| 37 | | 0.74 | 19/33 | | | | | | | |
| 40 | | 0.48 | 5/35 | | | | | | | |
| 45 | | 0.66 | 9/57 | | | | | | | |
| 48 | 0.67 | 11/47 | | | | | | | | |
| 49 | 0.64 | 14/62 | | | | | | | | |
| 50 | 0.78 | 27/93 | | | | | | | | |
| 51 | 0.74 | 19/47 | | | | | | | | |

| Dependent variable | Variable | Item No. | Standard Coefficient (Factor loading) | t-value | Average variance extracted (AVE) | Composite Reliability | Cronbach's Alpha |
|----------------------------------------|---------------------|----------|---------------------------------------|---------|----------------------------------|-----------------------|------------------|
| | | 52 | 0.71 | 20.37 | | | |
| | | 53 | 0.77 | 26.12 | | | |
| | | 54 | 0.72 | 17.36 | | | |
| | | 57 | 0.76 | 21.09 | | | |
| | | 59 | 0.51 | 5.98 | | | |
| | | 61 | 0.64 | 11.46 | | | |
| | | 62 | 0.64 | 10.48 | | | |
| | | 64 | 0.70 | 13.28 | | | |
| | | 65 | 0.71 | 15.53 | | | |
| | | 66 | 0.64 | 7.76 | | | |
| | | 67 | 0.70 | 17.52 | | | |
| | | 68 | 0.84 | 34.99 | | | |
| | | 69 | 0.80 | 28.84 | | | |
| | | 70 | 0.72 | 17.73 | | | |
| | 71 | 0.54 | 9.30 | | | | |
| | 72 | 0.61 | 11.11 | | | | |
| | Cost of proceedings | 88 | 0.66 | 14.59 | 0.50 | 0.83 | 0.75 |
| | | 89 | 0.75 | 22.07 | | | |
| | | 90 | 0.79 | 27.35 | | | |
| | | 91 | 0.56 | 9.32 | | | |
| 92 | | 0.75 | 22.64 | | | | |
| Transparency and accountability | 93 | 0.75 | 14.06 | 0.48 | 0.78 | 0.68 | |
| | 94 | 0.69 | 8.79 | 0.48 | 0.78 | 0.68 | |
| | 95 | 0.53 | 34.17 | | | | |
| | 96 | 0.80 | 13.72 | | | | |
| Educational system and skills training | 98 | 0.72 | 3.37 | 0.34 | 0.72 | 0.62 | |
| | 99 | 0.40 | 12.01 | | | | |
| | 100 | 0.66 | 8.38 | | | | |
| | 101 | 0.59 | 10.64 | | | | |
| | 102 | 0.68 | 6.41 | | | | |

Source: Test results

4. Research Findings

4.1. Analysis of rural entrepreneurship situation and its underlining institutional variables

Descriptive findings about the general characteristics of the respondents demonstrated that most of the respondents (81.9%) were male and 18.1% were female. The majority of the respondents (73.1%) were heads of the household. In terms of education, they primarily had high school diploma and lower education (56.5 percent)

and bachelor's degrees (26.4 percent). Regarding the occupations, they usually held a job in the service sector so that 56% of the respondents worked in the service field. It was followed by agriculture (24.1 percent), animal breeding (14.8%), handicrafts (3.7%), and industry (1.4%). In this research, to compare villages in terms of entrepreneurship, four indices ff "Considering oneself as an entrepreneur, the history of entrepreneurial activity, the number of people working in the workshop, and the amount of

investment” were combined based on Table 3 and an index called ssaale ff entrepreneurship” was obtained. Each of the four factors had the same weight in creating the scale of entrepreneurship. A higher score denotes a greater scale of

entrepreneurship. The entrepreneurship scale is between 0 and 16. The results of the comparison of villages in terms of entrepreneurship scale are outlined in Table 4 and Figure 2.

Table 3. Characteristics related to the scale of entrepreneurship in the sample population

| | Characteristic | No. | Percent |
|------------------------------------------|--------------------------------|-----|---------|
| Attending entrepreneurship classes | Yes | 4 | 1/9 |
| | No | 212 | 98/1 |
| Considering yourself an entrepreneur | Yes | 80 | 37 |
| | No | 136 | 63 |
| History of entrepreneurial activity | Less than 2 years | 16 | 7/4 |
| | 2-5 years | 34 | 15/7 |
| | More than 5 years | 56 | 25/9 |
| | I have no record in this field | 110 | 50/0 |
| Number of people working at the workshop | 1 | 38 | 35/8 |
| | 2 | 36 | 33/9 |
| | 3 | 18 | 16/9 |
| | 4 | 9 | 8/4 |
| | Over 4 | 5 | 4/7 |
| Amount of investment | Less than 100 million | 64 | 29/6 |
| | 100 to 200 million | 21 | 9/7 |
| | 200 to 300 million | 10 | 4/6 |
| | More than 300 million | 13 | 6 |
| | No investment | 108 | 50 |

Source. Local survey 2022

Table 4. Statistical index of the scale of entrepreneurship in villages (sorted by average)

| Rank | Village | Number in Sample | Mean | SD |
|------|----------------|------------------|------|------|
| 1 | Velayat Rud | 57 | 8/42 | 5/04 |
| 2 | Gasil | 5 | 7/80 | 4/44 |
| 3 | Emam Cheshmeh | 6 | 7/50 | 4/32 |
| 4 | Asiab Dargah | 5 | 6/60 | 4/88 |
| 5 | Azadbar | 8 | 5/63 | 3/07 |
| 6 | Kohneh deh | 7 | 5/43 | 3/91 |
| 7 | Gach sar | 5 | 5/40 | 3/13 |
| 8 | Valeh | 11 | 5/27 | 4/69 |
| 9 | Garmab | 5 | 5/20 | 4/32 |
| 10 | Meidanak | 5 | 5/20 | 4/55 |
| 11 | Nesa | 34 | 5/06 | 4/00 |
| 12 | Gashnadar | 5 | 5/00 | 4/36 |
| 13 | Varangehrud | 9 | 4/78 | 4/47 |
| 14 | Sorkkeh Darreh | 7 | 4/71 | 3/95 |

| Rank | Village | Number in Sample | Mean | SD |
|------|-------------|------------------|------|------|
| 15 | Malek faliz | 17 | 4/12 | 2/93 |
| 16 | Koshgak | 6 | 3/67 | 1/03 |
| 17 | Hasanakdar | 24 | 2/75 | 2/54 |

Source: Local survey 2020

According to the results of Table 4, all the villages, except for Velayat Rud, had an average below the mean or median (i.e. 8). In terms of the scale of entrepreneurship, Velayat Rud (8.42), Gasil (7.80) and Emam Cheshmeh (7.50) had the highest average, and the lowest scale of entrepreneurship belonged to Hasanakdar villages with a score of 2.75. In the scope of the study, the results showed that more than 98.1% of respondents had not attended any entrepreneurship classes and were not familiar with modern business methods and innovations in the production and employment process. 37% considered themselves entrepreneurs, claiming that if proper conditions for supporting rural businesses were provided, they were willing to enter this field.

The survey on the history of entrepreneurial activity of the respondents revealed that about 50.9% of the respondents have no history of entrepreneurial activity. Although 49.1% of the respondents reported a history of entrepreneurial activity, the surveys denoted that about 23.1% of the respondents, with less than 5 years of experience, by setting up a small business unit and lacking competitive power, could be treated as novice entrepreneurs and have not yet been able to

expand their entrepreneurial activities. Although 26% of the respondents were involved in entrepreneurial activity for over 5 years, the field survey suggested that the activities conducted were in line with family businesses, which are largely to meet the family's economic needs without any innovation in the field of employment and rural business. The survey of the number of workers in the workshop revealed that only 49% of the studied sample owned a specific workshop for economic activity of whom about 69.7% worked in workshops with two workers. This suggests that self-employment with the approach of family businesses has been the dominant activity of most workshops located in the study area. As for the amount of investment made by the respondents, 39.3% of the investments made in the field of business village was below 2000 million Rials, which is characteristic of small businesses with minimum capacity for economic competition. The findings in the study area indicated that entrepreneurial activity had not suppressed creativity, as Schumpeter noted, and lacked the process of innovation in the field of rural business, including the production and distribution of new goods and the presentation of novel methods.

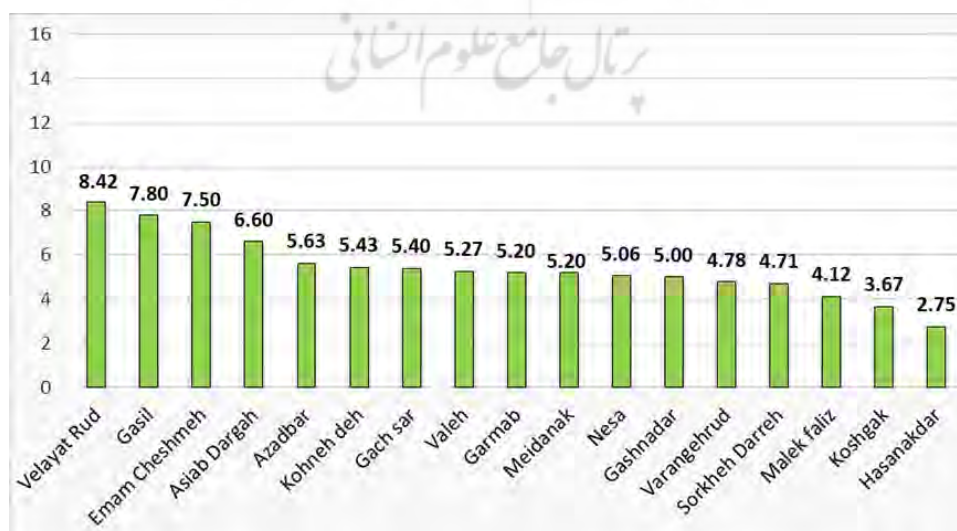


Figure 2. Column chart of entrepreneurship scale index for each village. Source: Research Findings 2022

The results on the average status of variables affecting the development of entrepreneurship in all villages show that they are below the average. Hence, it can be concluded that the studied villages did not have a favorable entrepreneurial condition. The comparison of the villages revealed that Velayat Rud and Valeh obtained the highest score in the state of rural entrepreneurship with an

average of 2.93 and 2.26, respectively, and the lowest average was scored by the villages of Koshgak and Kohne Deh with an average of 1.98 and 2, respectively. Below is the column chart of the state of entrepreneurship and its variables for comparison of villages in terms of entrepreneurship.

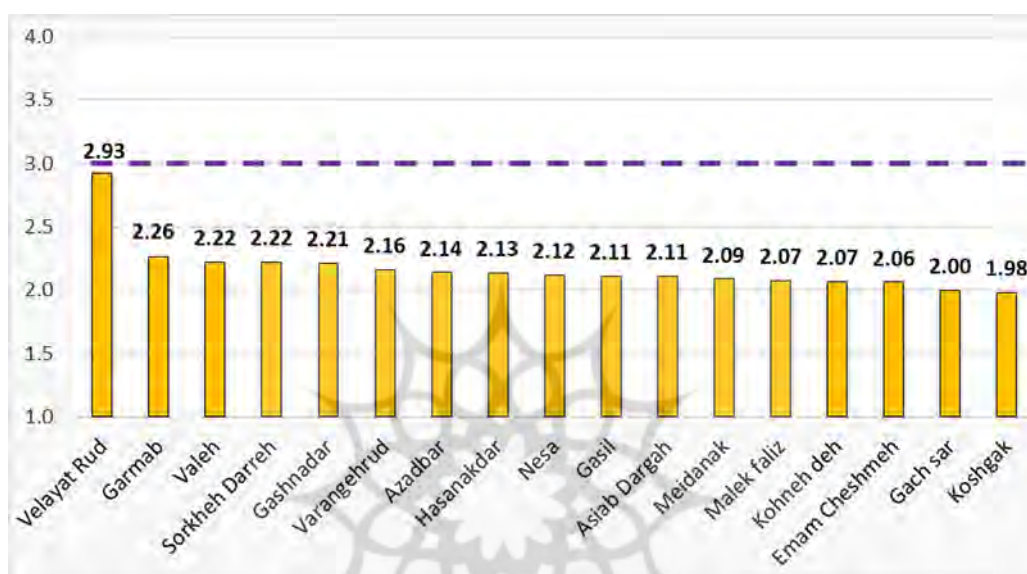


Figure 3. Column chart of the total average of rural entrepreneurial status for each village. Source: Research findings 2022

As outlined in (Table 5), the total score of entrepreneurial status was 2.33, which is below average. Further, the mean of all five variables: individual, social, economic, political and cultural, was below the average. Among these, the cultural variable obtained the highest mean (2.67), and the

lowest mean belonged to the political variable (1.77). The analysis of skewness and kurtosis showed that the reported values were in the range of -2 to +2 or close to this range, indicating that the variables had fairly normal distribution.

Table 5. Descriptive statistics for the analysis of rural entrepreneurial status

| Variable | Mean | SD | Skewness | kurtosis |
|------------|------|------|----------|----------|
| Individual | 2/32 | 0/60 | 0/641 | 0/483 |
| Social | 2/24 | 0/51 | 1/32 | 2/66 |
| Economic | 2/49 | 0/66 | 0/985 | 1/12 |
| Political | 1/77 | 0/55 | 1/79 | 3/23 |
| Cultural | 2/67 | 0/74 | 1/15 | 0/220 |
| Total | 2/33 | 0/48 | 1/54 | 1/84 |

Moreover, the average of the institutional variables affecting rural entrepreneurship (Table 6) revealed that all the averages were below 3, indicating that all villages did not have a desirable condition in all

12 variables under study. The analysis of averages showed that physical property rights had the highest mean (2.63), followed by costs of proceedings (2.37) and transaction costs (2.37).

The lowest mean was related to the variable of intellectual property rights (1.83), political stability (1.88) and economic stability (1.95). Also, the values of skewness and kurtosis suggested the

research variables have a normal or close to normal distribution and no severe deviation from the normal distribution was observed in the data.

Table 6. Descriptive statistics for institutional variables affecting the development of rural entrepreneurship

| Variable | Mean | SD | Skewness | kurtosis |
|----------------------------------------|------|------|----------|----------|
| Political stability | 1/88 | 0/84 | 0/65 | -0/29 |
| Rule of law | 2/20 | 0/62 | 1/29 | 0/86 |
| Judicial independence | 2/03 | 0/57 | 1/16 | 0/72 |
| Control of corruption | 1/97 | 0/56 | 1/47 | 1/54 |
| Physical property rights | 2/63 | 0/78 | 0/63 | -0/23 |
| Intellectual property rights | 1/83 | 0/45 | 1/11 | 0/76 |
| Reward system | 2/22 | 0/58 | 0/85 | 0/68 |
| Political stability | 1/95 | 0/72 | 1/38 | 1/84 |
| Transaction costs | 2/19 | 0/70 | 0/95 | 1/26 |
| Costs of proceedings | 2/37 | 0/67 | 0/98 | 0/49 |
| Transparency and accountability | 2/05 | 0/84 | 0/69 | 0/49 |
| Educational system and skills training | 2/01 | 0/45 | 0/75 | 0/24 |

Accordingly, it can be argued that the total score of the institutional variables affecting the development of rural entrepreneurship is lower than mean in all the villages of the study area. The studies indicate the deplorable institutional conditions of the studied area, because all studied variables are below average. Undoubtedly, the poor structure of property rights, the ineffective enforcement of contracts and the absence of effective legal restrictions increase the profits of non-productive activities pushing people towards

non-productive activities which are the key source of inflation, looting, brokering and intermediation. Under this condition, the cost of freeloading drops and the cost of production, employment and entrepreneurship soar. This process will escalate transaction costs, increase investment risk, and suppress motivation for productive activities, which will discourage production factors, decrease productivity, and consequently, prompt stagnation in the economic development process of rural areas.

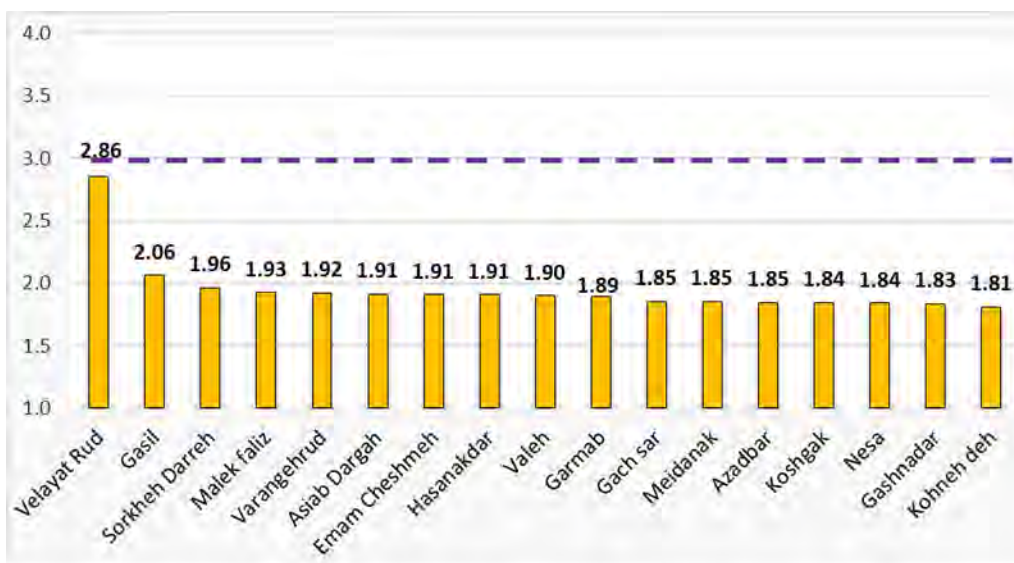


Figure 4. Column chart of the average of all institutional factors for each village. Source: Research findings 2022

4.2. Path analysis of institutional factors affecting the development of rural entrepreneurship:

In this research, the partial least squares path analysis technique was used to test the conceptual model, and the relationship between the variables was measured by Pearson's correlation test. The use of the partial least squares approach was primarily driven by the exploratory nature of the research model and questionnaire, and to a lower degree, by the fact that the assumption of multivariate normality was not established. Also, in this research, multivariate normality, which is the premise of the structural equation modeling test, was tested with Mardia's coefficients, and a coefficient value of 7.42 was obtained. Considering a value of 5 for Merdia's coefficient, it can be concluded that the assumption of multivariate normality was not confirmed, and therefore, the non-parametric method of partial

least squares, which is resistant to the assumption of multivariate non-normality, was used for testing the model. Hence, 12 independent variables of institutional factors were measured by the dependent variable of rural entrepreneurship analysis in the form of a correlation matrix. Table 7 outlines the correlation of the independent variables of institutional factors and the dependent variable of rural entrepreneurship in the correlation matrix along with the descriptive statistics of the mean and standard deviation. The average scores range from 1 to 5. It should be noted that the normality of single variables was evaluated using skewness and kurtosis indices, and given that skewness and kurtosis values of all variables were in the range of +2 to -2, the normality of the distribution of variables was confirmed. As a result, Pearson's correlation test was used to investigate the relationship between the variables.

Table 7. Pearson correlation test for research variables and descriptive statistics of variables

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---------------------------------|--------|--------|--------|---|---|---|---|---|---|----|----|----|----|
| 1. Political stability | 1 | | | | | | | | | | | | |
| 2. Rule of law | 0/45** | 1 | | | | | | | | | | | |
| 3. Physical property rights | 0/35** | 0/56** | 1 | | | | | | | | | | |
| 4. Intellectual property rights | 0/25** | 0/41** | 0/59** | 1 | | | | | | | | | |

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| 5. System of rewards | 0/19** | 0/38** | 0/32** | 0/09 | 1 | | | | | | | | |
| 6. Economic stability | 0/36** | 0/29** | 0/08 | 0/11 | 0/15* | 1 | | | | | | | |
| 7. Educational system | 0/45** | 0/31** | 0/11 | 0/17* | 0/11 | 0/26** | 1 | | | | | | |
| 8. Transaction costs | 0/54** | 0/42** | 0/19** | 0/21** | 0/13* | 0/19** | 0/06 | 1 | | | | | |
| 9. Cost of Proceedings | 0/36** | 0/35** | 0/21** | 0/30** | 0/16* | 0/27** | 0/04 | 0/42** | 1 | | | | |
| 10. Control of Corruption | 0/28** | 0/53** | 0/35** | 0/38** | 0/23** | 0/32** | 0/23** | 0/23** | 0/15* | 1 | | | |
| 11. Transparency & Accountability | 0/46** | 0/22** | 0/28** | 0/25** | 0/26** | 0/31** | 0/11 | 0/31** | 0/29** | 0/46** | 1 | | |
| 12. Judicial independence | 0/33** | 0/47** | 0/33** | 0/37** | 0/10 | 0/27** | 0/20** | 0/26** | 0/35** | 0/52** | 0/38** | 1 | |
| 13. State of rural entrepreneurship | 0/48** | 0/42** | 0/16* | 0/35** | 0/13* | 0/55** | 0/46** | 0/26** | 0/22** | 0/41** | 0/37** | 0/31** | 1 |
| Mean | 1/88 | 2/20 | 2/63 | 1/83 | 2/22 | 1/94 | 2/01 | 2/25 | 2/37 | 1/97 | 2/06 | 2/03 | 2/33 |
| Standard deviation | 0/84 | 0/62 | 0/78 | 0/45 | 0/48 | 0/67 | 0/45 | 0/60 | 0/67 | 0/56 | 0/67 | 0/57 | 0/48 |

Note: * $p \leq 0.05$ and ** $p \leq 0.01$ ** Source: test output

The results of Pearson's correlation test (Table 7) showed a significant correlation between all institutional factors and rural entrepreneurial status ($p < 0.05$). The analysis of the intensity of correlations revealed that economic stability had the strongest correlation with the state of rural entrepreneurship with a correlation coefficient of 0.55, followed by political stability (0.48), and educational system and skills training (0.46). The conceptual model of the research was tested using the structural equation modeling technique and Smart PLS software. It should be noted that the hypothesis of multiple non-collinearity between the variables affecting the entrepreneurial status was evaluated by the variance inflation factor

(VIF). VIF shows the extent to which variables are aligned with each other. Since the value of this measure was below 5, there was no strong collinearity between predictor variables and the hypothesis of multiple non-collinearity was established. Figure 5 is the experimental model in standard coefficients mode and the t statistic is reported in parentheses. T-values over 1.96 confirm the relationship at the 95% CI ($p < 0.05$). The presented model is modified and final. Therefore, to provide a simpler model and also to improve the fit of the model, non-significant relationships were removed and all remaining relationships are statistically significant.

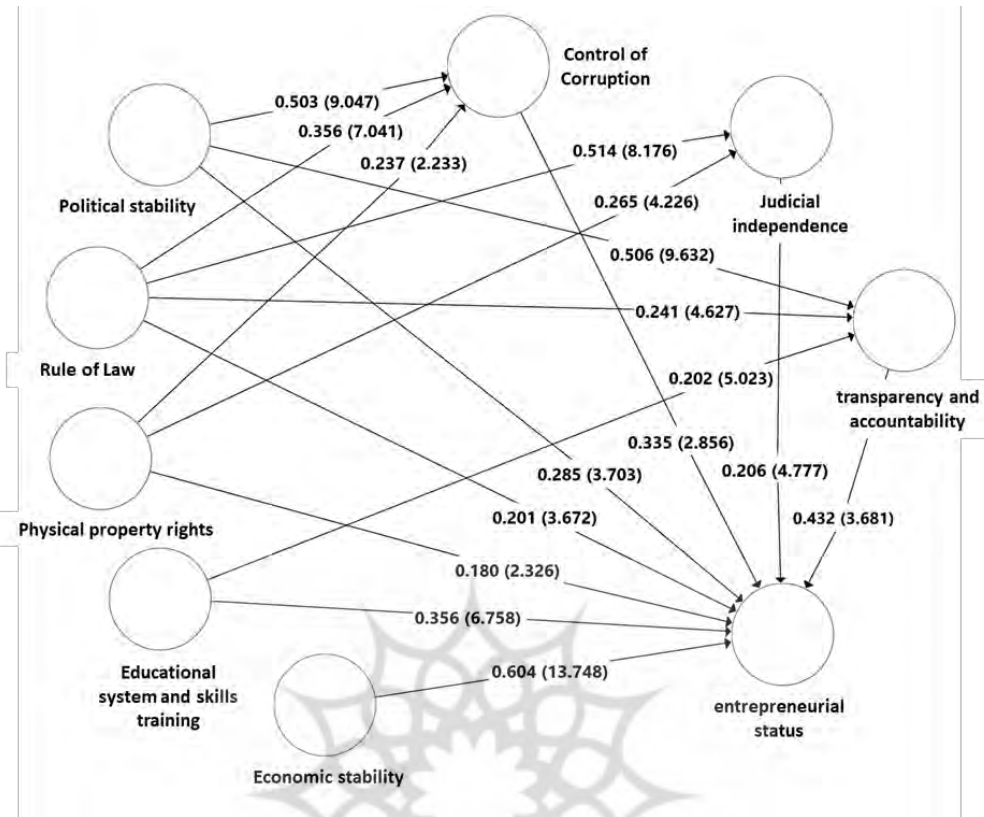


Figure 5. Empirical model in standard path coefficients (and t-statistics)

According to Figure 5, all paths have a t-value over 1.96, and therefore, all relationships in the revised model are significant at CI=95% ($p < 0.05$). The fit indices of the model showed that the coefficient of determination for the dependent variable of rural entrepreneurial status was 0.683. Given that this coefficient indicates the degree to which variance or variation of the dependent variable of rural entrepreneurship is explained by the set of independent variables of institutional factors, it turned out that independent and mediating variables of the model could explain 68.3% of the variance of the dependent variable of the state of rural entrepreneurship, which exhibits the explanatory power of the model. Another index used to explore the structural fit of the model is the Q2 index. According to this index, models with good structural fit should be able to predict the endogenous variables of the model. This means that if in a model, the interrelationships of structures are properly defined, the structures will wield sufficient impact on each other and hence the hypotheses are confirmed. As such, Q2 value (CV-Redundancy) for loneliness was 0.354, which was above the desired value of 0.35, and the Q2 index

confirmed the structural fit. The normalized fit index was 0.92, which was a good and acceptable value and showed the good fit of the model. The root mean square index of the standard residual was 0.082. In general, none of the fit indices had a low value and they all appeared good and acceptable, according to which the model fitness is confirmed. After measuring the model fitness, the structural relationships of the institutional factors affecting rural entrepreneurship were discussed in the form of direct and indirect effects. The results of the direct impacts of institutional factors affecting the state of rural entrepreneurship (Table 8) confirmed the direct effect of eight factors, political stability, rule of law, physical property rights, educational system and skills training, economic stability, control of corruption, judicial independence, transparency and accountability on the state of rural entrepreneurship. According to the results, out of a total of 12 factors, 8 factors remained in the model. The highest effect was for economic stability with a standard coefficient of 0.60, transparency and accountability with a standard coefficient of 0.43, and the educational system and skills training with a standard

coefficient of 0.36. The results suggest that when the security the property rights and support for rural entrepreneurship is guaranteed, the rural entrepreneurs will be more confident in abiding by the laws and regulations supporting entrepreneurship, and the ground will be prepared

for the development of employment and productive activity in rural areas. Subsequently, favorable and stable political and economic conditions in line with the rule of law lead to higher levels of entrepreneurship and wealth creation.

Table 8. The results of investigating the direct effects of institutional factors affecting rural entrepreneurship

| Type of effect | | Standard Coefficient | Standard error | T value | P value |
|-----------------------------------------------------------|------------------------------------------------------------------|----------------------|----------------|---------|---------|
| Direct Relation | Political stability -> Control of corruption | 0'50 | 0'056 | 9'05 | <0'001 |
| | Rule of law -> Control of corruption | 0'36 | 0'051 | 7'04 | <0'001 |
| | Physical property rights -> Control of corruption | 0'24 | 0'106 | 2'23 | 0'027 |
| | Rule of law -> Judicial independence | 0'51 | 0'063 | 8'18 | <0'001 |
| | Physical property rights -> Judicial independence | 0'26 | 0'063 | 4'23 | <0'001 |
| | Political stability -> Transparency and accountability | 0'51 | 0'053 | 9'63 | <0'001 |
| | Rule of law -> transparency and accountability | 0'24 | 0'052 | 4'63 | <0'001 |
| | Physical property rights -> Transparency and accountability | 0'20 | 0'040 | 5'02 | <0'001 |
| | Political stability -> Entrepreneurial status | 0'28 | 0'077 | 3'70 | <0'001 |
| | Rule of law -> entrepreneurial status | 0'20 | 0'055 | 3'67 | <0'001 |
| | Physical property rights -> Entrepreneurial status | 0'18 | 0'077 | 2'33 | 0'021 |
| | Educational system and skills training -> entrepreneurial status | 0'36 | 0'053 | 6'68 | <0'001 |
| | Economic stability -> Entrepreneurial status | 0'60 | 0'044 | 13'75 | <0'001 |
| | Control of corruption -> Entrepreneurial status | 0'34 | 0'117 | 2'86 | 0'005 |
| | Judicial independence -> Entrepreneurial status | 0'21 | 0'043 | 4'78 | <0'001 |
| Transparency and accountability -> Entrepreneurial status | 0'43 | 0'117 | 3'68 | <0'001 | |

Source: Test output

Moreover, the results of the indirect effects of institutional factors affecting the state of rural entrepreneurship (Table 9) corroborated the mediating role of the control of corruption in the relationship between political stability and the state of rural entrepreneurship, between the rule of law and the state of entrepreneurship, and between physical property rights and the state of entrepreneurship ($p > 0.05$). Political stability and the rule of law imposed an indirect effect on the state of entrepreneurship through the mediating role of judicial independence. Transparency and

accountability also played a significant mediating role in the association of the three independent variables of political stability, rule of law, and the educational system with the dependent variable of the state of rural entrepreneurship. ($p > 0.05$). The findings suggest that a high level of corruption control in the society, while alleviating the uncertainty of production, enhances transparency and establishes order in the society, paving the way for enhanced security of property rights in rural areas. In this regard, the mediating role of judicial independence is of great importance. When the

government appoints a third-party arbitrator to enforce and arbitrate the laws in a fair and non-discriminatory manner, and it is ensured that all the stakeholders involved are treated equally. This provides a fair and impartial means of enforcing and upholding the rule of law, which in turn increases predictability and opportunities for long-

term planning and investment. In fact, it can be asserted that the government, by setting up an independent and third-party arbiter, can demonstrate its commitment to protecting property rights to support entrepreneurship and employment.

Table 9. The results of investigating the indirect effects of institutional factors affecting the state of rural entrepreneurship

| Type of Mediation | Standard Coefficient | Standard error | T value | P value | Type of effect |
|---------------------------------|----------------------------------------------------------------------------------|----------------|---------|---------|----------------|
| Control of corruption | Political stability -> Control of corruption -> entrepreneurial status | 0'17 | 0'041 | 4'11 | <0'001 |
| | Rule of law -> Control of corruption -> entrepreneurial status | 0'12 | 0'036 | 3'31 | 0'001 |
| | Physical property rights -> Control of corruption -> entrepreneurial status | 0'08 | 0'030 | 2'65 | 0'009 |
| Judicial independence | Political stability -> judicial independence -> entrepreneurial status | 0'11 | 0'029 | 3'65 | <0'01 |
| | Rule of law -> Judicial independence -> entrepreneurial status | 0'05 | 0'021 | 2'60 | 0'010 |
| Transparency and accountability | Political stability -> Transparency and accountability -> entrepreneurial status | 0'22 | 0'032 | 6'83 | <0'001 |
| | Rule of law -> Transparency and accountability -> entrepreneurial status | 0'10 | 0'019 | 5'48 | <0'001 |
| | Education system -> Transparency and accountability -> entrepreneurial status | 0'09 | 0'025 | 3'49 | <0'001 |

5. Discussion and Conclusion

This research explored institutional variables affecting entrepreneurship in Nesa rural area in Karaj. The research model was based on institutional theory. According to this theory, there is a bilateral relationship between institutions and entrepreneurial activities. The theoretical foundation of this relationship rests upon the views of North (1990; 1994; 1997), Baumol (1990), and Williamson (2000). The literature on institutions (North, 1990) Baumol, 1990; Sobel, 2008) and entrepreneurship assumes that institutional environments prepare conditions for individual decision-making, and thereby the institutional framework in which an activity is conducted often determines the productive, unproductive or destructive nature of that activity. This research, by looking into the institutional entrepreneurship literature, seeks to identify institutional variables affecting the development of entrepreneurship. The

analysis of research variables shows that the existing institutional structure is in a favorable condition and failed to pave the way for entrepreneurship development in the scope of the study.

Studies on the state of entrepreneurship in the rural area of Nesa suggest its deplorable condition in the studied area so that rural businesses are actually intended to provide sustenance for the family, so these activities fall short of competing with the manufacturing industries in the periphery of the cities. In fact, it has been developed only with the approach of ensuring family employment with the minimum investment. Moreover, research shows that the entrepreneurial activity in the rural area of Nesa is bereft of any innovation in the field of rural business, including the development and distribution of new products and the presentation of new production methods.

As such, the comparison of this area, in terms of historical structure and social, economic and

institutional conditions with other regions of the country, suggests that entrepreneurial activities have not offered a decent reward for manufacturers and economic activists, which lays the ground for innovation, labor division and added value for residents.

It is because institutional factors that breach property rights have amplified the cost of exchanging assets, and there is no doubt under these circumstances, entrepreneurship will not be recognized as one of the main and underlying values of society. It is driven by the fact that institutional factors instigate uncertainty in the production and employment process, which hampers productive entrepreneurship.

The analysis of Iran's economic conditions in different periods demonstrates that the "sustenance" economy has been the dominant economic life of Iranian in history, at least until the Constitutional Revolution, and economic activities have displayed a tendency for brokerage economy in trade (RezaGholi, 2019) The studies of Charles Issawi (1971) on Iran's economy in the middle of the 19th century found that in Iran, brokering and reselling have been the antithesis of productive and entrepreneurial activities, and it has wreaked havoc on productive economic activities (Afrakhteh, 2019) Research by a group of Harvard consulting engineers between 1951 and 1958 state that it modern production would never take root in Iran, because in Iran, land and house trade and speculations are highly profitable, and there is no anti-corruption program in place (Afrakhteh, 2019). In this regard, failure to recognize security, as one of the fundamental and strategic issues in Iran's economy, makes it difficult to defend property rights. This has exposed assets to risk and capitals tend to be accumulated in areas where they can be concealed and easily moved. As a result, manufacturing in Iran, whether agricultural or industrial production, has not expanded, and as a result, the knowledge investment has been limited to ensuring minimum livelihood (RezaGholi, 2019).

The analysis of institutional variables affecting rural entrepreneurship suggested that all had an average of below 3, indicating that villages had an unfavorable situation in 12 studied variables. These conditions clearly indicate the weak and inefficient role of institutional variables in rural areas. Further, the findings revealed that the highest average

belonged to physical property rights (2.63), followed by costs of proceedings (2.37). The lowest mean was found in the variable of intellectual property rights (1.83), political stability (1.88) and economic stability (1.95). Further, skewness and kurtosis values suggested that the research variables have a normal or close to normal distribution and no severe deviation from the normal distribution was observed in the data.

The results of Pearson's correlation test showed that all institutional variables were significantly correlated with the state of rural entrepreneurship ($p < 0.05$). As for the intensity of correlations, the results displayed that economic stability had the strongest correlation with the state of rural entrepreneurship (a correlation coefficient=0.55), followed by political stability (0.48), and the educational system and skills training (0.46).

The findings of the research conceptual model using the structural equation modeling technique confirm the direct effect of eight factors of political stability, rule of law, physical property rights, educational system and skills training, economic stability, Control of corruption, judicial independence, transparency and accountability on the state of rural entrepreneurship. The research on the role of mediating institutional variables affecting the development of rural entrepreneurship suggests that the variable of Control of corruption mediated the relationship between political stability and the state of entrepreneurship, the rule of law and the state of rural entrepreneurship, and physical property rights and the state of rural entrepreneurship. Also, political stability and the rule of law imposed an indirect effect on the state of rural entrepreneurship through the mediating role of judicial independence, and finally, the variable of transparency and accountability mediated the relationship between the three independent variables of political stability, rule of law and the educational system with the dependent variable of the state of rural entrepreneurship. The analysis of the fit indices of the model revealed that the coefficient of determination for the dependent variable of the rural entrepreneurial status was 0.683. accordingly, independent and mediating variables of the model could explain 68.3% of the variance of the rural entrepreneurial status, which demonstrates the good explanatory power of the model.

A comparison of this research with previous studies suggests that institutional variables play an effective role in the development of rural entrepreneurship, which is in keeping with studies such as Ghasemi et al. (2020), Zandieh et al. (2020), Heydari Sareban (2015), Hashemi et al. (2013). The role of institutional factors, especially governing bodies, in the development of rural entrepreneurship and the protection of property rights is also aligned with the studies of Avramenko and Silver (2009), and Fortunato (2014). Socio-economic and institutional conditions with emphasis on the importance of governance and the role of the rule of law are also in line with the findings of Korsgaard et al., (2015) and Pezzini (2001). The findings prove that despite the direct and indirect impact of institutional factors on rural entrepreneurship, they play a weak

and inefficient role in rural areas. As such, it can be contended that a poor institutional structure increases profits derived from non-productive activities and therefore it is necessary to organize the institutional structure in line with the national production and employment policies of rural areas.

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Authors' contributions

The authors equally contributed to the preparation of this article.

Conflict of interest

The authors declare no conflict of interest.

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طراحی مدل تحلیل مسیر عوامل نهادی موثر بر توسعه کارآفرینی (مورد مطالعه: ناحیه روستایی نسا در شهرستان کرج)

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چکیده مبسوط

۱. مقدمه

مولد، غیرمولد و مخرب تقسیم می‌کند. نهادهای ضعیف رسمی و غیر رسمی رفتارهای فرصت‌طلبانه را تقویت خواهند کرد. از آنجا که فقدان قواعد روشن بازی و عدم اطمینان، این انگیزه را برای مردم ایجاد خواهد کرد که از تمام فرصت‌ها به نفع خود استفاده کنند، در چنین محیط نهادی، جستجوی رانت و فساد (کارآفرینی بی‌حاصل و مخرب) فعالیت‌های اقتصادی غیر مولد را رونق خواهد داد در همین راستا نورث معتقد است که نهادهایی که حقوق مالکیت را تعریف و اجرا می‌کنند بر عملکرد اقتصادی تأثیر می‌گذارند. زیرا هزینه‌های مبادله و عدم اطمینان ناشی از مبادله را کاهش می‌دهند. بررسی مطالعات حاصل از نقش نهادها در توسعه کارآفرینی روستایی می‌توان دریافت که بیشتر این مطالعات، حول محور سیاستگذاری، حکمرانی روستایی، نوآوری و ویژگیهای اجتماعی، روانی و فردی است.

بنابراین ضرورت توجه به نقش سیاستهای تولید، اشتغال و کارآفرینی از سطح محلی اجتناب ناپذیر می‌نماید. و در این بین نقش عوامل نهادی موثر در توسعه کارآفرینی روستایی از جمله سیاستگذاری و حکمرانی محلی در قالب حمایت از حقوق مالکیت کارا به عنوان مهمترین ابزار نهادی توسعه کارآفرینی روستایی، می‌تواند زمینه ساز شکوفایی اقتصادی مناطق روستایی شود.

۳. روش شناسی تحقیق

این پژوهش براساس هدف، بنیادی، کاربردی و بر اساس روش گردآوری داده‌ها توصیفی-پیمایشی است. جامعه آماری پژوهش ساکنان دهستان نسا است.

حجم نمونه بر اساس فرمول کوکران به تعداد $n=216$ محاسبه شده است و توزیع آن در میان روستاها بر اساس انتساب متناسب با تعداد خانها، ها، ده، دهستانها، نمونه‌گیری تصادفی ساده

در دو دهه گذشته مفهوم کارآفرینی روستایی، با تحولات بنیادین و روش شناختی روبرو بوده است. در این تحول، نقش انسان در توسعه اقتصادی مد نظر قرار گرفته است و با تغییر رویکرد به فضا از درک آن به عنوان یک مکان فیزیکی ثابت به نفع یک نظام پویای روابط شامل فعالیت‌های بازیگران محلی و اجتماعی و سرمایه نهادی به همراه این شناخت که فضا توسط تاریخ، سنت و جوامع محلی ساخته شده است، مورد توجه قرار گرفته است. بر این اساس کیفیت بستر نهادی در شکل‌گیری فعالیت‌های کارآفرینانه مولد و غیر مولد در مناطق روستایی بسیار تاثیرگذار است. بررسیهای انجام شده در خصوص نقش نهادها در توسعه کارآفرینی مناطق روستایی به صورت مشخص نشان می‌دهد که کارآفرینی در این مناطق فرصت‌ها و انگیزه‌های خاصی را برای انجام انواع مختلف تولید ارائه می‌نماید. از آنجا که افزایش تولید و اشتغال و گسترش بنگاه‌های اقتصادی در مناطق روستایی نیازمند ایجاد بستر مناسب جهت هدایت منابع است، ضرورت توجه به شناخت متغیرهای نهادی موثر و ساختارهایی که تبیین آن باعث بهبود و ارتقای سطح کارآفرینی در مناطق روستایی است، اجتناب ناپذیر می‌نماید.

۲. مبانی نظری تحقیق

مطالعات انجام یافته توسط "داگلاس نورث" و "ویلیام بامول" نشان می‌دهد که بین محیط نهادی و توسعه کارآفرینی رابطه مستقیم وجود دارد. براساس نظر نورث نهادها، قواعد بازی در جامعه هستند. اگر قواعد بازی از طریق فعالیت‌های غیرسازنده امکان پذیر شود. طبیعی است که کارآفرینان انگیزه کمتری برای ورود به فعالیت‌های تولیدی خواهند داشت. بر این اساس، بامول کارآفرینی را به سه نوع

* نویسنده مسئول:

دکتر حسن افراخته

بدست آمد و بر این اساس متغیرهای مستقل و میانجی مدل توانستند ۶۸/۳ درصد از واریانس وضعیت کارآفرینی روستایی را تبیین کنند که نشان از قدرت تبیین مناسب مدل دارد.

۵. بحث و نتیجه گیری

پژوهش حاضر با هدف تحلیل مسیر عوامل نهادی موثر در توسعه ناحیه روستایی نسا انجام پذیرفت. نتایج پژوهش در خصوص وضعیت کارآفرینی نشان می دهد، خود اشتغالی با رویکرد کسب و کارهای خرد خانوادگی و عمدتاً فاقد نوآوری، فعالیت غالب کارآفرینی در محدوده مورد مطالعه بوده است. در این پژوهش بر اساس مطالعات حاصل از منابع فارسی و لاتین، ۱۲ متغیر نهادی موثر در توسعه کارآفرینی شناسایی شدند

بررسیهای انجام یافته ، برنامناسب بودن شرایط نهادی محدوده مورد مطالعه اشاره دارد. زیرا تمام متغیرهای مورد مطالعه پایین تر از میانگین متوسط است. مسلماً ساختار نامناسب حقوق مالکیت، عدم اجرای مناسب قراردادها و عدم ایجاد و اعمال محدودیت‌های قانونی موثر ، باعث افزایش سودآوری فعالیت‌های غیر مولد می شوند و موجبات حرکت افراد را به سمت فعالیت‌های غیر مولد که منشأ اساسی تورم، غارت و دلالی و واسطه گری هستند، فراهم می‌کنند و در این شرایط هزینه مفت خوارگی کاهش و هزینه تولید و اشتغال و کارآفرینی افزایش می یابد. و این فرایند باعث افزایش هزینه‌های مبادلاتی، افزایش ریسک سرمایه‌گذاری و کاهش انگیزه برای فعالیت‌های مولد شده که پیامد آن کاهش انباشت عوامل تولید و کاهش بهره‌وری کل عوامل و در نتیجه رکود در روند توسعه اقتصادی مناطق روستایی خواهد شد.

کلید واژه ها: متغیرهای نهادی، کارآفرینی، ناحیه روستایی نسا، شهرستان کرج


تشکر و قدردانی: پژوهش حاضر برگرفته از رساله دکتری نویسنده اول (جواد زحمت کش ممتاز)، گروه جغرافیای انسانی دانشکده علوم جغرافیایی دانشگاه خوارزمی تهران است

انجام شد. ابزار پژوهش، پرسشنامه محقق ساخته است. در این پژوهش از روش تحلیل عاملی تاییدی به منظور بررسی روایی و پایایی پرسشنامه و از روش تحلیل مسیر به روش حداقل مجزورات جزئی برای آزمون مدل مفهومی پژوهش استفاده شد و رابطه متغیرها با آزمون همبستگی پیرسون سنجیده شد.

۴. یافته های تحقیق

بررسیهای انجام یافته در خصوص وضعیت کارآفرینی در ناحیه روستایی نسا نشان می دهد که این موضوع در محدوده مورد مطالعه از شرایط مناسبی برخوردار نبوده و عملاً کسب کارهایی روستایی در جهت تامین حداقل معاش خانواده است. بررسی میانگین متغیرهای نهادی موثر بر کارآفرینی روستایی نشان داد که تمامی میانگین ها کمتر از مقدار متوسط ۳ بود.

نتایج مدل مفهومی پژوهش با استفاده از تکنیک مدل سازی معادلات ساختاری، تاثیر مستقیم هشت عامل ثبات سیاسی، حاکمیت قانون، حقوق مالکیت فیزیکی، نظام آموزشی و مهارت آموزی، ثبات اقتصادی، کنترل فساد، استقلال قضایی، شفافیت و پاسخگویی بر وضعیت کارآفرینی روستایی تایید می نماید. بررسیهای انجام شده در خصوص نقش متغیرهای نهادی میانجی موثر در توسعه کارآفرینی روستایی نشان می دهد که متغیر کنترل فساد در رابطه بین ثبات سیاسی و وضعیت کارآفرینی ، حاکمیت قانون و وضعیت کارآفرینی روستایی و همچنین حقوق مالکیت فیزیکی و وضعیت کارآفرینی روستایی مورد تایید قرار گرفت. همچنین ثبات سیاسی و حاکمیت قانون نیز با میانجی گری استقلال قضایی بر وضعیت کارآفرینی روستایی اثر غیرمستقیم داشتند و در نهایت عامل شفافیت و پاسخگویی توانست در رابطه سه متغیر مستقل ثبات سیاسی، حاکمیت قانون و نظام آموزشی با متغیر وابسته وضعیت کارآفرینی روستایی، نقش میانجی گر معنی داری داشته باشد. بررسی شاخص های برازش مدل نشان داد ضریب تعیین برای متغیر وابسته وضعیت کارآفرینی روستایی برابر با ۰/۶۸۳

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