

## Modelling the Barriers to Creating Entrepreneurial Businesses Based on Structural Equations

Nour Mohammad Yaghoubi<sup>1</sup>

Zarha Omidvar<sup>2</sup>

<sup>1</sup> Professor of Public Administration Department, Faculty of Management and Economics, University of Sistan and Baluchestan, Zahedan, Iran .E-mail: [yaghoubi@mgmt.usb.ac.ir](mailto:yaghoubi@mgmt.usb.ac.ir).

<sup>2</sup> PhD candidate in public administration, Faculty of Management and Economics, University of Sistan and Baluchestan, Zahedan, Iran. E-mail: [Zahra.omidvar@pgs.usb.ac.ir](mailto:Zahra.omidvar@pgs.usb.ac.ir).

### ARTICLE INFO

#### Article type:

Research

#### Article history

Received: 10.08.2023

Accepted: 19.01.2024

#### Keywords:

Entrepreneurial ecosystem,  
Entrepreneurial businesses,  
Border areas,  
Sistan and Baluchestan,  
Structural equations,

#### JEL Classification:

E5, H2, C21.

### Abstract:

Objective Using a quantitative approach and a systematic methodology, advanced structural equation modelling techniques were applied to test the research hypotheses. In a possible sample of 98 experts and activists of entrepreneurship in Sistan and Baluchestan province, the observations were collected using a standard 32-items tool based on Likert scale. After screening the raw data, covariance-based confirmatory factor analysis was used to evaluate the validity, reliability and fittingness of the research model, and the hypotheses were tested in the form of a structural model. The results of convergent and divergent validity tests showed that the two indicators of the research model has validity. Also, the reliability tests indicated the generalizability of the research results at 85%. Also, all the research hypotheses were confirmed.

### 1. Introduction

In Sistan and Baluchestan province, despite abundant human and natural resources, production, income and well-being are at a very low level, and a significant number of young and even educated work force do not have the possibility of employment. Therefore, the development of entrepreneurship is a very necessary approach for the province. Sistan and Baluchestan with an area of about 187 square kilometers constitutes 11.4% of the total area of Iran and is considered one of the largest provinces in the country. In 1985, its population was estimated at 2.4 million people, which accounts for 3.4% of the entire

**Cite this article:** N. M. Yaghoubi and Z. Omidvar (2024) Modelling the Barriers to Creating Entrepreneurial Businesses Based on Structural Equations, 16 (1), 209-228.

DOI: [10.22111/ijbds.2024.48072.2097](https://doi.org/10.22111/ijbds.2024.48072.2097).



© The Author(s).

Publisher: University of Sistan and Baluchestan

country's population, and 49% of the province's population is under 15 years old. Unfortunately, when the name of Sistan and Baluchestan is mentioned, it is unconsciously associated with a deprived region without the smallest welfare, scientific and facilities. It is while Sistan and Baluchestan is located in the southeast of Iran, adjacent to Afghanistan and Pakistan, and the international waters of the Oman Sea. And this is why it is considered one of the rich provinces due to its resources and geo-political and geo-economic condition. With proper planning, all the capacities of the province can be introduced to those who are interested, so that the image created in people's minds about the province will be broken and the path of development will be paved. Demographic characteristics of border areas (such as religion, ethnicity, language and social context), geographical characteristics (including length and type of border, proximity to crisis centers, presence of important facilities), and finally the characteristics of the external environment are among the things that can be planned and investigated within the border areas [1]. Sistan and Baluchestan has taken the last place among other provinces in all development indicators including life expectancy, education, income and human development [2]. Also, this province has the lowest value in all human development indicators of the United Nations Development Program compared to other provinces [3]. In addition, despite the fact that Sistan and Baluchestan province is the youngest province in the country, it ranks last in the rate of economic participation [4]. The small development of this province has led to the migration of residents, especially from its borderland. Unemployment and the lack of necessary infrastructure for the development of entrepreneurship are the main reasons for deprivation and as a result migration from these areas. The high rate of unemployment has caused the formation of illicit businesses in this province. The decrease in population density and the depopulation of border areas on the one hand and formation of illicit businesses on the other hand have caused many security risks for the country in recent years. According to the statistics of the United Nations Office against Narcotics and Crime, Sistan and Baluchestan is considered as the main transit corridor for the country's narcotics. Security incidents in recent years in Sistan and Baluchestan have placed it in the list of unsafe areas of the country. However, according to many local and regional experts, there is a significant connection between unemployment and the growth of insecurity in this province. Unfortunately, so far, this issue has not been looked at strategically, and the security of the province has only been considered from a military perspective. While it is possible to take a special look at increasing the income of its residents and create sustainable and healthy employment by accompanying military strategies. Field surveys show that many residents of border areas turn to illicit businesses due to the lack of better job opportunities. Therefore, by adopting smart strategies and providing the necessary platform for the development of entrepreneurship in the border areas,

in addition to preserving the human dignity of the border residents, an effective step can be taken in stabilizing and strengthening regional security. In fact, if the underprivileged are looked at through the eyes of creative entrepreneurs and the capacities of border areas are exploited for entrepreneurship, a new world of opportunities can be opened [5]. Thus, using the capacities of border areas for entrepreneurship can solve many problems of these regions. Therefore, the present research is aimed to investigate the barriers to creating entrepreneurial businesses in the border areas of Sistan and Baluchestan province based on structural equations.

## **2. Theoretical literature and research background**

Barriers to investment and entrepreneurship can be divided into two main categories: 1) Infrastructural and technical barriers; and 2) Institutional barriers. The definition provided by Douglas North (1995-2005) is that the term 'institution' is used to refer to the rules, norms and strategies used by humans in repetitive situations. The rule includes the common prescriptions in the form of should, shouldn't and maybe, which are understood and implemented in special situations, in a predictable way by the agents supervising the behavior, and imposing rewards and punishments [6]. Based on the institutional theory, institutional factors affect both the economy of the country and the business environment of the society, as well as the macro-decisions of providing the organization's resources, maintaining the organization's legitimacy, and choosing strategies in partners and organizations. This influence is sometimes done in an open, official and legal way, and sometimes in the framework of informal and non-open networks. Economic activity in developing countries is largely affected by these factors, and recognizing these factors plays a major role in explaining the business environment [7]. Yaghfouri and Beheshtifar (2013) investigated and analyzed the capacities and limitations of regional development in Sistan and Baluchestan with emphasis on land development in the border areas of Iran. Using the SWOT technique, they came to the conclusion that border areas planning is trying to remove the barriers to development in these areas and to realize integrated and sustainable national development by providing a type of spatial-strategic planning. Also, the findings of the research show the position of the diversity strategy. It is close to the offensive position in the region, and if the strengths and opportunities are exploited against the weaknesses and threats and the suggested strategies are implemented, one can hope for the improvement of the social, economic, cultural situation [8]. In another research, Zera'at Kan (2016) enumerated the sources of entrepreneurial opportunities in the zero-border areas of Sistan and Baluchestan, including financial, natural, human, infrastructural and legal-institutional resources. Emerging events in the field of entrepreneurship in these regions have also been classified based on political

changes, legal changes, technological changes, social changes and market changes. Also, the entrepreneurship opportunities in the zero-border areas of Sistan and Baluchestan province are based on the field of activity, includes agriculture, animal husbandry, industry, mining, transit, handicrafts, new energies, engineering services and tourism [9]. Safaifard (2016) showed that the entrepreneurial development strategies in the border city of Mirjaveh include privileged conditions of the region by being on the Zahedan-Pakistan transit road, having a border market, and exporting goods to all parts of the province and the country. Also, the lack of planning and government investment for entrepreneurship as the most important internal weakness, the expansion of domestic and foreign business cooperation based on the laws of special economic zones as the most important external opportunity and as a result illicit businesses have been listed as the most important external threat compared to the entrepreneurial activities of fuel, goods and drug smuggling. Also, the best strategy for the development of entrepreneurship in Mirjaveh is the offensive strategy (SO) [10]. Miri et al. (2013) showed that border markets play a significant role in economic development and security in the border areas of Milk with the aim of achieving sustainable development, comprehensive security and social justice [11]. Also, Rashki Qala Nou et al (2018) concluded that the export of border markets has a significant effect on the employment of the Sistan region [12]. Kikhakohan et al. (2019) stated barriers and problems of technological entrepreneurship development in Sarbaz region including economic barriers, educational barriers, psychological barriers, infrastructural barriers, cultural barriers, political barriers, managerial barriers, technological barriers and human resource barriers [13]. The results of a research by Khosravipour et al. (2019) showed that the barriers preventing rural women's entrepreneurship are support-economic barriers and managerial barriers, respectively [14]. Karimzadeh (2018) also stated that among the barriers affecting Baluch women's entrepreneurship in Saravan city, personality-cultural barriers are the most effective ones, and economic barriers, support barriers, educational barriers and infrastructure barriers are in the next priorities [15]. Allah Bakhsh and Yaqoubi (2013) while identifying the factors of consequences and prevention strategies of fuel smuggling in Sistan and Baluchestan province state that the amount of fuel smuggling has increased by 5% between 2008-2009 and this phenomenon has always been associated with profitability and its reduction to zero requires the implementation of long-term plans. Among these programs, one can increase the number of industrial units, especially in the food industry, allocating grants for the support and development of the tourism sector, especially the marine tourism sector [16]. Niebuhr and Silvia (2017) have investigated the economic effects of trade in border areas and believe that the effects of the convergence of countries are concentrated in border areas [17]. Lee (2017) showed that the socio-economic effects of cross-border trade and its effect on increasing the living standards of

the people in the three states of Laos depend on cross-border trade in increasing the variety and quality of goods [18]. Murshid et al. (2018) showed that investment risk has increased despite the increase in market competition and the formal and informal costs of goods clearance, especially for small businesses [19]. Lin Zhang et al. (2019) concluded that regional organizational changes aimed at increasing economic opportunities for cross-border exchanges and international trade increase regional exports [20].

According to the review of the research literature, the barriers to creating entrepreneurial businesses in the border areas of Sistan and Baluchestan are shown in Table (1).

**Table 1. Barriers to creating entrepreneurial businesses in the border areas of Sistan and Baluchestan province**

Concepts	Codes
<b>Financial capital</b>	<ol style="list-style-type: none"> <li>1. Financial provision by government centers</li> <li>2. Comprehensive network of stakeholders</li> <li>3. Communication with investors</li> <li>4. Angels of business</li> <li>5. Risky investors</li> <li>6. Contact people</li> <li>7. Financial support for entrepreneurship</li> <li>8. Granting low interest loans</li> <li>9. Formation of financial fund</li> <li>10. Credit guarantee for start-up businesses</li> <li>11. Encouraging investment</li> <li>12. Access to financial and economic facilities and resources</li> <li>13. Raw sales and lack of facilities for processing rural products in border areas</li> <li>14. The advantages of investing in border areas are not prominent</li> </ol>
<b>Institutional</b>	<ol style="list-style-type: none"> <li>1. Institutional and legal problems regarding obtaining necessary permits and inconsistency of local and provincial institutions</li> <li>2. Problems related to lack of land and lack of land use change</li> <li>3. Border deadlocks and market problems</li> <li>4. Encouraging and supporting policies for border production</li> </ol>
<b>Structural and accessibility</b>	<ol style="list-style-type: none"> <li>1. Weakness in facilities and infrastructure of villages in border areas, especially access roads</li> <li>2. Weakness in advertising and sales</li> <li>3. Weakness in information technology</li> </ol>
<b>Socio-cultural</b>	<ol style="list-style-type: none"> <li>1. Low efficiency and weakness of rural education and empowerment</li> <li>2. Culture of innovation and creativity</li> <li>3. Cultivating the spirit of creativity and innovation</li> <li>4. Attitude and desire for entrepreneurship</li> <li>5. Mentors</li> <li>6. Cultural support of risk-taking, innovation and creativity</li> <li>7. Celebrating successful entrepreneurs in the province</li> <li>8. Media encouragement of top entrepreneurs</li> <li>9. Creating a positive attitude to entrepreneurship</li> <li>10. Cultural reforms to create entrepreneurial value</li> </ol>
<b>Politics</b>	<ol style="list-style-type: none"> <li>1. Macro goals and policies</li> </ol>

	<ol style="list-style-type: none"> <li>2. The mechanism of applying and controlling policies and laws</li> <li>3. Political atmosphere</li> <li>4. Close interaction and cooperation between government, industry and university</li> <li>5. Market entry rules (permits)</li> <li>6. Tax and customs exemptions</li> <li>7. Simplifying administrative procedures</li> <li>8. Removing barriers to entrepreneurship</li> <li>9. Granting legal incentives</li> <li>10. Facilitating the entry of ideas and entrepreneurs into the market</li> <li>11. Amending laws and regulations for the benefit of entrepreneurship and entrepreneurs</li> </ol>
<b>Market</b>	<ol style="list-style-type: none"> <li>1. Marketing problems and access to sales markets</li> <li>2. Border markets</li> <li>3. Market size</li> <li>4. Primary reference customers</li> <li>5. Large organizations as customers</li> <li>6. Domestic general customers</li> <li>7. Removal of brokers and intermediaries</li> <li>8. Reform the pricing system</li> <li>9. Compilation of consistent export and import laws</li> <li>10. Support domestic production</li> <li>11. Facilitating easy access to domestic and foreign markets</li> </ol>
<b>Human capital</b>	<ol style="list-style-type: none"> <li>1. Information, knowledge and technology</li> <li>2. The existence of technical talents</li> <li>3. Cultivating creativity and innovation and developing entrepreneurial skills</li> <li>4. Cultivating the spirit of entrepreneurial motivation</li> <li>5. Entrepreneurial management training in schools, universities and knowledge-based companies</li> </ol>
<b>Supportive</b>	<ol style="list-style-type: none"> <li>1. Sharing knowledge and experiences by organizations</li> <li>2. Support from family and friends</li> <li>3. Attention to innovation and the existence of innovation support programs in organizations</li> <li>4. Tax laws</li> <li>5. Work rules</li> <li>6. Legal system</li> <li>7. Antitrust laws</li> <li>8. Infrastructure support for entrepreneurship</li> <li>9. Access to information</li> <li>10. Public security</li> <li>11. Supporting business associations related to entrepreneurship</li> <li>12. Providing legal and management advice to entrepreneurs</li> <li>13. Spiritual property</li> <li>14. Holding classes and training courses in entrepreneurship management</li> </ol>

### 3. Research methodology

This research is applied in terms of purpose and descriptive correlational in terms of data collection method. The statistical population includes 124 experts and activists of entrepreneurship in Sistan and Baluchestan province. Using the

simple random sampling method and Cochran's formula, the sample size was considered 94. Data were collected using a researcher-made questionnaire. The presence of factor loadings in the calculation of reliability and validity indices of the structure was shown in Table 2. Advanced indicators of validity and reliability analysis were calculated by SPSS and SMART PLS-4 software.

**Table 2. Reliability and validity assessment**

Latent variable	$\alpha$	$\omega$	CR(rho_a)	CR (rho_c)	(AVE)
Financial capital	0.823	0.842	0.816	0.874	0.632
Institutional	0.840	0.862	0.845	0.845	0.717
Structural and accessibility	0.830	0.846	0.817	0.858	0.656
Socio-cultural	0.840	0.855	0.819	0.830	0.710
Politics	0.773	0.803	0.784	0.860	0.864
Market	0.850	0.873	0.826	0.837	0.758
Human capital	0.716	0.749	0.743	0.840	0.589
Supportive	0.847	0.868	0.810	0.857	0.669

**Notes:**  $\alpha$  = Cronbach's alpha,  $\omega$  = McDonald's Omega, CR = Composite reliability, AVE = Average variance extracted

Before examining the external model, the internal correlation of the scores of reflective indices of a latent variable was calculated by Cronbach's alpha reliability consistency test for each latent variable and the values were greater than the acceptable limit of 0.7 (Goodboy & Martin, 2020). Due to the structural weaknesses of  $\alpha$ , the index has been recently criticized by experts and the best alternative solution for alpha index is McDonald's omega. (In table 2, all the variables of the research are greater than the cut point of 0.7 for this index) (Moradi et al., 2022). After modification, the external model had construct reliability and convergent validity. The divergent validity of the indices measuring the latent variables was evaluated by the transverse loading test (in the appendix of the article) and it was found that each item correctly measures its corresponding variable and has validity (Henseler et al., 2015). Table 5 measured the divergent validity of the latent variables with Fornell-Larcker test, and the results showed that the root mean square of the extracted variance of each latent variable is greater than the correlation coefficient of that latent variable with other variables (Ab Hamid et al., 2017).

**Table 3. Fornell-Larcker divergent validity analysis**

	Financial capital	Institutional	Structural and accessibility	Socio-cultural	Politics	Market	Human capital	Supportive
<b>1</b>	<b>0.856</b>							
<b>2</b>	0.348	0.837						
<b>3</b>	0.457	0.451	0.824					
<b>4</b>	0.403	0.336	0.512	0.865				
<b>5</b>	0.216	0.155	0.215	0.193	0.908			
<b>6</b>	0.535	0.532	0.641	0.55	0.253	0.882		
<b>7</b>	-0.294	-0.411	-0.433	-0.386	-0.256	-0.516	0.836	
<b>8</b>	0.419	0.358	0.443	0.401	0.254	0.582	-0.398	0.737

**Notes:**

p &lt; 0.100†

p &lt; 0.050\*

p &lt; 0.010\*\*

\*\*\*p &lt; 0.001

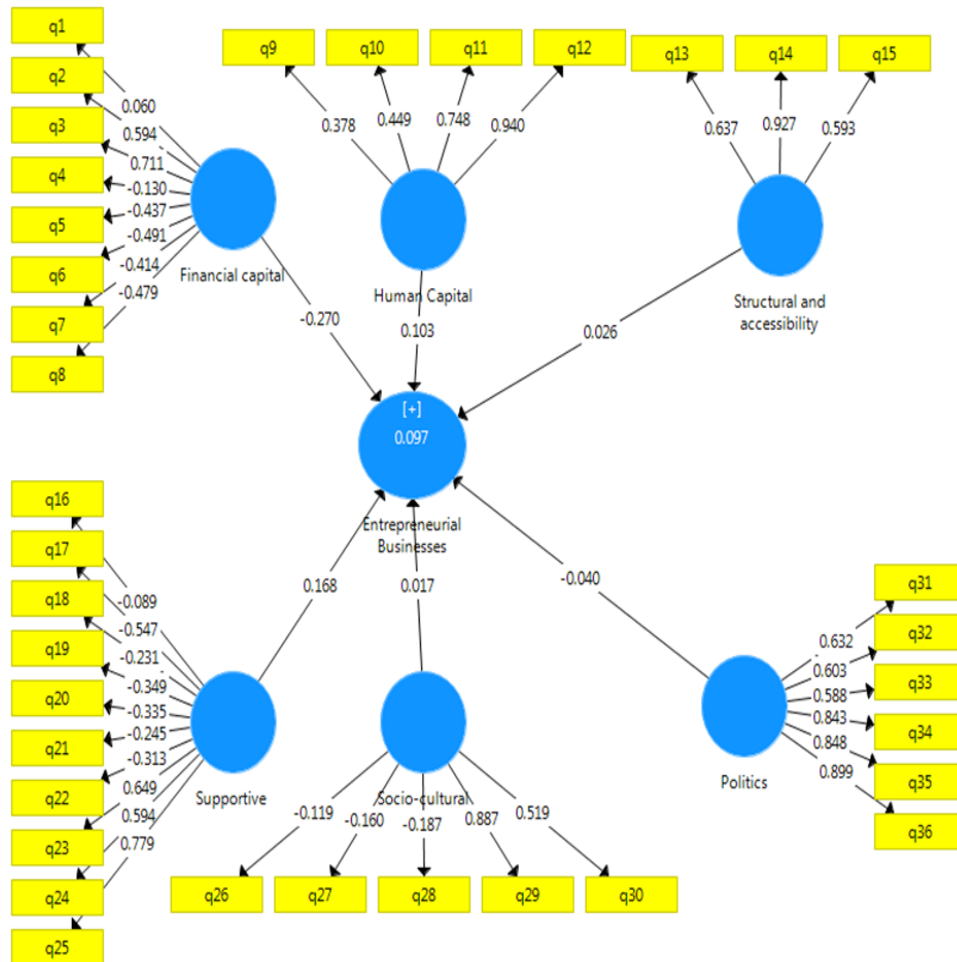
**Table 4. Testing multiple methods and multiple features of HTMT**

	1	2	3	4	5	6	7	8
<b>1</b>								
<b>2</b>	0.414							
<b>3</b>	0.551	0.532						
<b>4</b>	0.49	0.395	0.612					
<b>5</b>	0.269	0.189	0.265	0.235				
<b>6</b>	0.64	0.619	0.755	0.652	0.306			
<b>7</b>	0.35	0.479	0.51	0.459	0.312	0.601		
<b>8</b>	0.545	0.455	0.568	0.518	0.337	0.739	0.508	

The modified (external) measurement model is now subject to quality control. There are no goodness-of-fit criteria in the form of covariance axes in partial least squares methods, that is, goodness-of-fit indices cannot reliably distinguish valid models from invalid ones (Ringle et al., 2022). The Q square index is used to check prediction quality of manifest variables against the latent variable in the external model. PLS predict was implemented in the software and in the form of the ignore command; the prediction quality of the external model was calculated in the form of the Q square index (Moradi & Miralmasi, 2020). According to what has been stated in the literature of the last decade, the value of this index should be greater than zero. Although, for its interpretation, values of 0.02, 0.15 and 0.35 can be used, respectively from weak to strong (Becker et al., 2013). Q

square values of the outer model (appendix) have evaluated the prediction quality of the outer model as strong.

Now that the external model has confirmed the validity, reliability and quality of the observations collected, the internal (structural) model is implemented to test the hypotheses and predict the accuracy of the endogenous variables (Tarka, 2018). The structural model test can be seen in Figure 1,2 and Table 5.



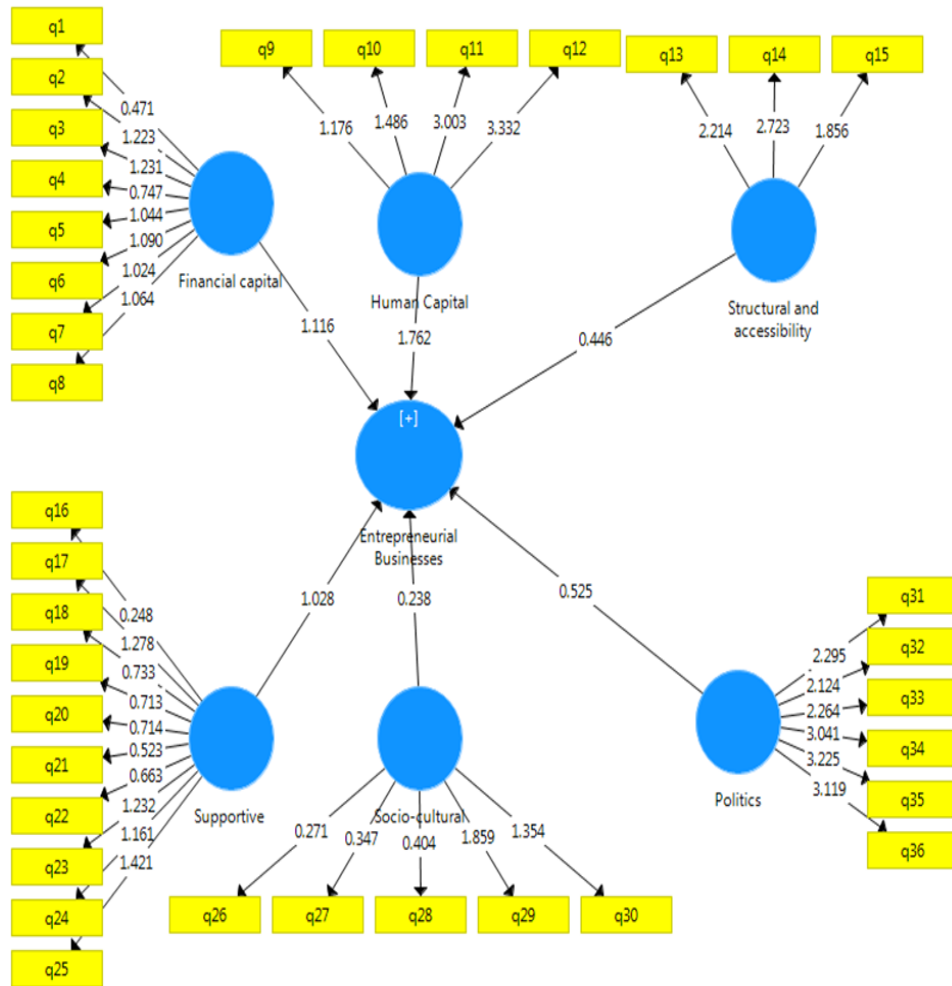


Figure 2. The external and internal research model in the mode of estimating the coefficients and the significance of the coefficients

**Table 5. Results of hypotheses testing**

Hypotheses	$\beta$	VIF	T values	P values	Results
Financial capital -> Entrepreneurial Businesses	0.091	1.468	2.142	0.032	significant
Human Capital -> Entrepreneurial Businesses	0.123	1.513	3.928	0/000	significant
Politics -> Entrepreneurial Businesses	- 0.294	1/000	8.195	0/000	significant
Socio-cultural -> Entrepreneurial Businesses	0.147	1.448	4.527	0/000	significant
Structural and accessibility -> Entrepreneurial Businesses	0.242	1.529	5.599	0/000	significant
Supportive -> Entrepreneurial Businesses	0.237	1.766	7.335	0/000	significant

#### 4. Conclusions and suggestions

Examining various studies in various countries and economies has determined that the economic development of each region is influenced by the entrepreneurship system of that region at the macro level. Identifying the set of these indicators and their effects as dimensions of the entrepreneurial ecosystem is of great importance for the sustainable development of entrepreneurial activities. For the development of border areas, it is necessary to build capacity and economic mobility. Capacity building with regional development programs and economic mobility is realized through entrepreneurship and improved entrepreneurial ecosystem of the region.

Based on this, the current research was carried out with the aim of identifying and prioritizing barriers to entrepreneurial businesses in the border areas of Sistan and Baluchestan province. In this study, after reviewing the literature of entrepreneurial businesses and conducting interviews with 38 experts, policymakers, and activists of the field, data from qualitative interviews were collected. Then, the concepts and verbal proposals obtained were classified during two stages including open coding and axial coding. Then, by analyzing the findings using the theme analysis method, 34 basic themes were obtained. The results of the theme analysis method was a model with 7 variables including social capital (7 dimensions), financial capital (12 dimensions), politics (11 dimensions), market (9 dimensions), human capital (5 dimensions), support (14 dimensions) and culture (9 dimensions). The comparative results showed that many factors obtained in previous researches are not mentioned and are considered among the new results of this research.

According to the findings, the variables and criteria of policies in entrepreneurial businesses in the border areas of Sistan and Baluchestan province include removing barriers to entrepreneurship in border areas, amending laws and

regulations for the benefit of entrepreneurship and entrepreneurs, defining goals and macro policies, creating tax and customs exemptions in border areas, simplifying administrative procedures, facilitating the entry of entrepreneurs into the market, facilitating obtaining permits to enter the market, granting legal incentives stability in the political and security atmosphere of the province, and close cooperation between the government, industry and universities of the province.

The market dimension is the only dimension in which all its components are of relatively high importance. If there is a favorable condition of market, we can expect the movement and the favorable condition of the ecosystem. Supporting domestic production, large organizations as customers of small and medium businesses, eliminating dealers and smuggling, creating border markets with a new mechanism, facilitating easy access to the markets of Pakistan, Afghanistan and other internal markets; developing consistent export and import laws, creating concessions for kolbers and issuing cross-border retailing cards, reforming the pricing system for domestic general customers to use the border markets, market size and primary reference customers are among the important components of the dimension.

Public sector regulations affect regional innovation capacity in various ways. Governments can stimulate economic growth with tools such as direct financing. According to the findings of the research, the variables and criteria of financial capital in entrepreneurial businesses in the border areas of Sistan and Baluchestan province include financial support for entrepreneurship, credit guarantee by the government for start-up businesses, financing by government centers, the presence of high-risk investors and business angels in the province, the granting of low-interest loans and loans with flexibility in repayment of installments, the formation of financial funds, creating confidence to attract investment at the provincial level, cooperation with provincial investors and a comprehensive network of stakeholders.

According to the findings of the research, the variables and criteria of human capital in Sistan and Baluchestan include fostering a sense of creativity and developing entrepreneurial skills, increasing knowledge and technology, the existence of technical talents, fostering the spirit and motivation of entrepreneurship in society, entrepreneurship education in schools, universities and knowledge-based companies.

One of the significant points in the support dimension is the importance of indirect support compared to direct support by the government. This issue can create favorable conditions in the market. According to the findings of the research, the supporting variables in the entrepreneurial ecosystem of Sistan and Baluchestan province include innovation support, anti-monopoly laws in border areas, tax laws, infrastructure support, anti-trafficking laws, association support , increasing entrepreneurial management, family and friends supporting

entrepreneurs, sharing knowledge and experience with start-ups, supporting labor laws, public security, advising entrepreneurs, intellectual property, legal system and easy access to information.

The social capital, as one of the very important components of the ecosystem, needs serious attention in the current state of the province, which creates a way to transfer knowledge between companies and universities. It is necessary to pay attention to local organizations and institutions, as well as to the relative advantage of the region and, if necessary, make extensive institutional changes with the aim of removing the existing barriers in the path of economic and social development. Today, it is quite clear that the development of such areas should be realized by mobilizing local and regional capacities and advantages. The variables of social capital include desire for entrepreneurship in the region, entrepreneurship education in schools and universities, informal networks, social participation, social trust and social cohesion.

The culture, as it has been emphasized in general ecosystem-related theories and researches, has a fundamental role in the whole and different dimensions of the entrepreneurship ecosystem of border areas. The components of culture include cultural support for risk-taking and innovation, cultural reforms to create the value of entrepreneurship against smuggling and brokering, fostering the spirit of creativity and innovation, improving the desire for entrepreneurship, propagating innovation and creativity in society, celebrating the successful entrepreneurs in the province, and the media encouragement of the best entrepreneurs.

The focus of the current research is on the entrepreneurial businesses in the border areas of Sistan and Baluchestan province, which with a multi-stage process, both texts and previous researches related to the entrepreneurial ecosystem of Iran have been comprehensively paid attention to. In determining the policies, instead of focusing on a specific pillar, all the pillars of the ecosystem should be considered. Considering the dimensions and priorities of the entrepreneurial ecosystem of the border provinces, paying attention to all these dimensions at the same time, while respecting the priorities, will improve the productivity and efficiency of the management system of the province, as well as the prosperity of the business environment and entrepreneurial behavior in the border provinces. In sum, the dimensions of the entrepreneurial ecosystem of Sistan and Baluchestan province have a completely new, unique and exclusive. The social capital of border markets, natural capitals and a localized framework gives researchers and policymakers of entrepreneurship a broad vision for conducting research and decision-making process with a comprehensive look at the entrepreneurship ecosystem of border provinces and make research and decisions more effective.

The regions of Sistan and Baluchestan province for various reasons such as geographical location, lack of economic and social development insufficient

infrastructure and skilled manpower, etc., faces problems in creating entrepreneurial businesses. For each regions of the province, the following practical suggestions can be considered.

**Sistan**

- 1) Creating training centers (training programs to develop entrepreneurial and technical skills can encourage people to create new businesses)
- 2) Facilitating access to financial resources (creating investment funds for entrepreneurs and facilitating bank loans to start and expand businesses, encouraging the creation of small and medium-sized companies)
- 3) Providing suitable infrastructures (improving communication, electricity, water and sewage and transportation infrastructures will strengthen existing businesses and create new businesses).

**Baluchestan**

- 1) Development of the tourism industry (using the natural scenery, historical and cultural places for the development of the tourism industry, and creating residences to boost entrepreneurial businesses)
- 2) Development of the agricultural sector (supporting the farmers for the optimal use of water resources, providing technical and up-to-date training in the field of agriculture and providing financial facilities for the creation and development of business)
3. Supporting local businesses (creating networks of local entrepreneurs, providing advice, technical and financial support, and encouraging the creation of international cooperation)

Some practical suggestions for creating entrepreneurial businesses in different regions of the province are as follows.

**Zabul**

- 1) Agriculture and animal husbandry (the use of agricultural land and the potential of animal husbandry for the creation and development of businesses related to these industries.
- 2) Industry and mining (exploiting the mineral resources, creating industrial units for processing minerals, and producing semi-processed and final products for development of industry and creation of new jobs).

**Zahedan**

- 1) Handicrafts (supporting local handicrafts such as carpet weaving, rug weaving, and mat weaving to create jobs)
- 2) Tourism (exploiting tourism potentials such as natural landscapes, historical and cultural monuments to encourage hotel-building and improve tourism services)

**Chabahar**

1) Petrochemical industry (Due to its proximity to oil and gas refineries and sources, development of petrochemical industry and processing oil and gas products creates employment opportunities and economic growth)

2) Coastal tourism (using the coastal areas of Chabahar to create restaurants, hotels, recreational and marine sports centers to improve tourism)

Considering the background of the barriers to creating entrepreneurial businesses in Sistan and Baluchestan province and taking advantage of the opportunities of neighboring countries, the following practical suggestions can be made.

**Pakistan**

1) Trade and export (establishing closer trade relations with Pakistan and facilitating the import and export of goods between the two countries, especially in the border areas, to create new opportunities for entrepreneurial businesses)

2) Cooperation in joint industries (formation of joint companies and cooperation in the production and export of joint products such as clothing, food and handicrafts to improve businesses in Sistan and Baluchestan province)

**Afghanistan**

1) Investment in ports (Using the ports of Afghanistan to facilitate import and export through Sistan and Baluchestan province to create new business and logistics opportunities)

2) Trade and services (the development of cooperation in fields such as financial services, transportation, consulting and trade with Afghanistan to create new service and businesses in Sistan and Baluchestan province)

**Oman**

1) Cooperation in petrochemicals (using Oman's experience in the petrochemical industry to improve petrochemical industry in Sistan and Baluchestan)

2) Tourism development (taking advantage of Oman's experiences to improve tourism industry in Sistan and Baluchestan province)

Support barriers, illicit businesses and business victims are as follows:

Supporting barriers

1) Lack of financial resources (lack of financial resources and limited investment can be one of the main supporting barriers for entrepreneurs in Sistan and Baluchestan province. Increasing access to financial resources, including bank loans, government investment and creation of support funds, can help entrepreneurs in the way of creating and developing their businesses)

2) Lack of infrastructure (lack of economic and social infrastructure such as electricity, water, gas, communication and transportation networks can hinder the development of entrepreneurial businesses)

**Illicit businesses**

1) Insufficient information and creating false perceptions (entrepreneurs may face information problems that are related to the lack of knowledge of the market, the needs of customers, competitors, and the business process)

2) False advertising and fraud (false and fraudulent entities that provide poor or inappropriate products and services with the aim of gaining early profits can lead to a decrease in customer trust and increase in economic problems for entrepreneurs)

**Business victims**

1) Security instability (Security instability in border areas can cause serious damage to entrepreneurial businesses. Strengthening the security of areas and facilities to reduce security risks can help the growth and development of businesses)

2) External restrictions (sanctions, international trade restrictions and other problems can lead to lack of access to foreign markets and reduced business opportunities. The necessary facilities and infrastructure to facilitate export and import can help entrepreneurs to solve these problems. By overcoming support barriers, preventing illicit businesses and managing business damage, entrepreneurs in Sistan and Baluchestan can develop their businesses in a better way.

Unauthorized employment of foreigners in Sistan and Baluchestan province can be one of the barriers to creating entrepreneurial businesses in this region. Unauthorized employment of foreigners means illegal employment of foreigners in businesses and economic activities of the province, which is generally done without complying with the relevant rules and regulations. This issue can have a negative impact on local businesses and entrepreneurs in the region which is as follows.

**Improper competition**

Unauthorized employment of foreigners can cause improper and unfair competition in the labor market. These people usually have the ability to work with lower wages and operate without respecting workers' rights and labor regulations, which can lead to the weakening of local businesses and the reduction of employment in the region.

**Harm to the local economy**

Unauthorized employment of foreigners can lead to the transfer of foreign capital from the region. Due to non-payment of taxes and non-observance of internal financial regulations, the profits from these activities are transferred outside the province and the country, while the local economy needs to be stimulated and developed.

### Violation of workers' rights

Unauthorized employment of foreigners is usually associated with non-compliance with workers' rights and labor regulations. These people may work in inappropriate working conditions and without social protection, which leads to damage to local workers and lowering work standards in the region. Keep in mind that the unauthorized employment of foreigners may occur based on certain cases such as economic needs and special skills. However, in order to maintain economic interests and employment in Sistan and Baluchestan province, there is a need for proper control and supervision of illegal employment and the implementation of relevant laws and regulations.

Considering the background of barriers to creating entrepreneurial businesses in Sistan and Baluchestan province, below is a table that includes barriers and a column for relevant suggestions.

Barriers	Suggestions
Lack of financial resources	Creating support funds and facilitating access to bank loans
Lack of infrastructure	Investing in improving economic infrastructure including water, electricity, gas and transportation
Insufficient information and misconceptions	Providing accurate and complete information, entrepreneurship training and setting up entrepreneurship consulting centers
False advertising and fraud	Intensification of monitoring and legal measures against false and fraudulent advertisements
Security instability	Strengthening the security of areas and providing facilities to reduce security risks
External limitations	Necessary facilities and infrastructure to facilitate export and import
Unhealthy competition, unauthorized employment of foreign nationals	Proper control and supervision of unauthorized employment and implementation of relevant laws and regulations
Hit the local economy	Creating policies and programs to stimulate the local economy and attract local investment
Violation of workers' rights	Implementation of labor laws and observance of workers' rights

## References

1. Yaghfour, H., and Beheshtifar, J., 2013, an analysis of maintaining national unity and border security and ethnic diversity in border cities, National Conference on Border Cities and Security; Challenges and Approaches, Zahedan.
2. Pour Taleei, F., 2011. The position of development of Iran and the country's provinces from the perspective of the human development index, *program analytical news weekly*, number 437, (In Persian).
3. Iran Statistics Center, 2016. General Population and Housing Census 2015. *Iran Statistics Center*. (In Persian).
4. Iran Statistics Center, 2016. Excerpt of the results of the general population and housing census, 2015, *Sistan and Baluchestan province*. (In Persian).
5. Prahalad, C. K., and Ramaswamy, V. 2004. Co-creating unique value with customers. *Strategy & leadership*, 32(3), 4-9.
6. Crawford, Sue E.S., and Ostrom, E. 1995. A Grammar of Institutions. *American Political Science Review*. 89(3): 582–600.
7. Hosseini, Y., Mousavi, A. and Khoramabadi, M. 2013. Institutional barriers to investment and business in Iran based on institutional theory, *international conference on managing challenges and solutions*. (In Persian).
8. Yaghfour, H., and Beheshtifar, J., 2013, analysis of capacities and limitations in the direction of regional development with an emphasis on the improvement of Iran's border areas, a case study of Sistan and Baluchestan Province, National Conference on Border Cities and Security; Challenges and approaches, Zahedan
9. Zaret Kan, H., 2016. Identifying entrepreneurship opportunities in zero-border areas of Sistan and Baluchestan province, *master's thesis, development oriented entrepreneurship, Faculty of Entrepreneurship, University of Tehran*. (In Persian).
10. Safai Fard, N., 2016. Identification and ranking of entrepreneurship development strategies in Marzi Mirjaveh city, *master's thesis in entrepreneurship, Faculty of Management and Accounting, University of Sistan and Baluchestan*. (In Persian).
11. Miri, Gh., Javan, J., Afarakhta, H., Velayati, S. and Shayan, H., 2013. The role of social capital in rural development (case study: Sistan backwater region). *Journal of Geography and Regional Development*, No. 14, pp. 29-49. (In Persian).
12. Rashki Qala Nou, Z., Reza Kamalian, A., Hosseinzadeh, R., and Yaqoubi, N. M., 2018, The effect of export of border markets on the production of different economic sectors in the Sistan region, *National Conference of Economics, Development Management and Entrepreneurship with the approach of supporting goods Iranian, Zahedan*. (In Persian).
13. Kikhakhan, J., Akbari, M., and Hejazi, S. R., 2019. Identification of barriers to the development of regional technological entrepreneurship (case study: Sarbaz city). *Rural Research*, 11 (1): 139-124. (In Persian).

14. Khosravipour, B., Ani, N., Ajili, A. A. and Abdshahi, A., 2019. Factors affecting the development and obstacles preventing rural women's entrepreneurship. *Scientific Journal of Women and Culture*, 12 (44): 70-61. (In Persian).
15. Karimzadeh, M., 2018. A survey of Baloch women's entrepreneurship in the city, *Women's Social Psychological Studies*, 17 (2): 7-34. (In Persian).
16. Allah Bakhsh, Raheel, A B., and Yacoubi, I., 2013. Investigating fuel smuggling, factors, consequences and prevention strategies in Sistan and Baluchestan province, *in the collection of papers of the National Conference on Border Cities and Security; Challenges and Approaches, University of Sistan and Baluchestan*, April (In Persian).
17. Niebuhr, A., and Silvia, S., 2017. Integration Effects in BorderRegions –A Survey of Economic Theory and Empirical Studies; Hamburgisches Welt-WirtschaftsArchiv (HWWA) Hamburg Institute of International Economics.
18. Lee, b., 2017, leeber: phonesaly souksavath phetsamone sone, souphith Darachanthara, Vanthana, Norintha, ao PDR cross BORDER ECONOMY, case study in Dansavanh, Savannakhet, and Houaysai/Tonpheung, Bokeo, lao PDR "National Economic. Research Institute.
19. Murshid, K. a. s, and Tuot, S. 2018. the Cross Border Economy of Cambodia" Cambodia Development Resource Institute, Development Analysis Network with the Support of the RockefellerFoundation Phnom Penh.104-126.
20. Lin, Zh., Lin, C., Sali, L. and Jiangyong, L., 2019. Who rides the tide of regionalization: Examining the effect of the China-ASEAN Free Trade Area on the exports of Chinese firms. *International Business Review*.

## مدلسازی موانع ایجاد کسب و کارهای کارآفرینانه بر اساس معادلات ساختاری

### چکیده

محقق در رویکردی کمی و با بهره‌گیری از یک روش شناسی سیستماتیک از تکنیک‌های پیشرفته مدل سازی معادلات ساختاری جهت آزمون فرضیات پژوهش بهره برده است و در نمونه‌ای احتمالی از ۹۸ نفر از کارشناسان و فعالان حوزه کارآفرینی در استان سیستان و بلوچستان توسط ابزاری استاندارد با ۳۲ گویه در قالب طیف لیکرت مشاهدات خود را جمع آوری نموده است. پس از غربالگری داده‌های خام، آزمون تحلیل عاملی تاییدی کواریانس محور به ارزیابی روایی، پایایی و برازش مدل پژوهش به عنوان بررسی از واقعیت پرداخت و فرضیات در قالب مدل ساختاری آزمون گردیدند. نتایج آزمون‌های روایی همگرا و واگرا نشان داد که دو شاخص که مدل پژوهش دارای اعتبار بوده و آزمون‌های پایایی خبر از تعمیم پذیری ۸۵ درصدی نتایج پژوهش می‌دهد. همچنین کلیت فرضیات پژوهش بجز تایید شد.

**کلمات کلیدی:** اکوسیستم کارآفرینی، کسب و کارهای کارآفرینانه، مناطق مرزی، سیستان و بلوچستان، معادلات ساختاری.