

Business entrepreneurship and local economic development in farmers in two provinces of Peru

Abstract

The objective of research was to determine the relationship between business entrepreneurship and local economic development in farmers in the provinces of Virú and Chepén. Methodology research was basic, quantitative approach, non-experimental design, comparative causal level. Sample size was 70 farmers from the province of Virú and Chepén. The results suggest a high positive correlation ($\rho=0.770$ and $\rho=0.811$) and significant ($p < 0.05$) between business entrepreneurship and local economic development and dimensions of production, sociocultural and administrative policies, since it was obtained ($\rho= 0.829$ and $\rho=0.940$); ($\rho=0.635$ and $\rho=0.516$) and ($\rho=0.508^{**}$ and $\rho=0.734^{**}$), respectively, that is, entrepreneurship allows local development of farmers by providing them with a better quality of life and economic well-being.

Keywords: Business entrepreneurship, local economic development, production systems.

INTRODUCTION

Worldwide, entrepreneurship over the years has evolved since it is important for the social economic development of countries, however, the support of states is deficient, in terms of guidance on how to start a business, according to the needs of the market. In addition, it must have an entrepreneurial culture to strengthen the development of the nation (Chirinos and Pérez, 2016). It is important to mention that the agricultural sector has an analysis of agricultural production since the reduction of GDP in Latin America and the Caribbean (LAC) going from 21.3% in 2013 to 18.4% in 2016. According to an investigation in Ecuador, 10.38% belong to the economic sector of agriculture, livestock, forestry and fishing, in addition, there are shortcomings in administration, management of economic resources and a scarce culture of financing that are not used efficiently.

Similarly, in an investigation carried out in the determination of entrepreneurship in Colombia from an informal look at the market, which implies the realization of the models of choice based on the considerations of educational levels, socioeconomic strata, marital statuses and access to internet service, which made up the factors mentioned above that allows economic development (López, Lozano, Martínez and Tunjo, 2020). On the other hand, it should be noted that also in a study carried out in Colombia and Chile, that entrepreneurship allows the revitalization of the economy and the generation of jobs but must also worry about environmental aspects, in the same

way, public policies allow the strengthening of mechanisms, however, they have drawbacks in infrastructure and insolvency resolution for entrepreneurs, in addition, they are not using either due to ignorance due to the difficulty in accessing these formalization benefits (Cárdenas and Naranjo, 2018).

In the same way, social entrepreneurship highlights the barriers to create value and adapt to needs and the absence of sensitivity capable of capturing needs in innovative local contexts that allow the generation of quality of life and social welfare in concepts of equity for the achievement of peace, which allows the reduction of poverty (Jiménez, Hernández and Pitre, 2018). In the same way, there are other factors that limit the demands of the market, and that limit the applicability of the support policies of governments that allow them not only to establish themselves in the market but also to facilitate their growth and durability despite the low participation in the creation of companies (Rincón and Moreno, 2018). In Peru in recent years there has been a growth of entrepreneurship in economic sectors where 68% seek consumer satisfaction, but it should be noted that small businesses are composed of family groups that seek the development of society (Serida, Guerrero, Borda and Morales, 2016). A study highlights the accuracy in estimating the influence of entrepreneurship on productivity growth that estimates economic growth. In addition, the lack of systematization of support experiences from the consideration of economic development policies which affect the local population is evident with respect to entrepreneurship. Similarly, 40% of business entrepreneurship requires an unfavorable level, due to the little support of production value incentives and few are concerned about the channeling of activities which is not articulated from the sustainability policies that lead to an entity that promotes a deficient level of purchase of products (Romero, 2017).

In the same way, the main difficulties become the inefficiency of suppliers and ignorance of the fundamental elements of marketing consideration and that are not supported by financial markets so there are development access routes which benefits the entrepreneur offers, in addition they have not worried about the productive networks due to the null public policies that benefit as loans, In addition, due to the few resources and little knowledge in the chosen area that entails non-employability, it is necessary to seek training and awareness in the care of the protection of conservation and environmental protection (Valencia, 2018).

In the city of Trujillo, 45% involve the consideration of economic factors that allow adaptability to changes to excel in such a competitive market that individual factors also affect to adapt to new fundamental changes (Rojas, 2018). It should be noted that, in La Libertad, in the province of Virú and Chepén the association of farmers have drawbacks since the labor situation is deficient, so they need the support of the entities to be able to invest and start their own businesses, for this they must take into account the physical, economic and financial factors depending on the location where they are, In addition, they have difficulty in acquiring a loan because they do not have guarantees for the realization of loans. In the same way, they imply the productive factors, which hinder the increase of productivity to the measure of economic scales. This is due to the fact

that farmers do not have the economic resources, the deficient implementation of equipment, little training on the part of the municipalities in business entrepreneurship issues, although this issue is of utmost importance for the local economic development of the population in order to provide employment opportunities, good quality and well-being of the farmers' family and the population. Therefore, it is of vital importance to carry out this research What is the relationship between business entrepreneurship and local economic development in farmers in the provinces of Virú and Chepén, 2022?

According to the criteria proposed by Hernández and Mendoza (2018), the research is justified. For convenience, why it will serve as a basis for other research related to entrepreneurship and local economic development since currently there are not enough to help the work of improving this process from a scientific framework. Because this sector and especially small entrepreneurs are in a framework of informality are the rules applied, due to the little support of the various entities. As for social relevance. The research aims to contribute to the local, financial and social economic development of the two provinces that allow them to efficiently develop their entrepreneurship in order to sell their products in local markets, supermarkets and warehouses, to meet the needs of the population considering their well-being. Referring to practical implications. The application of a business venture helps contribute to local economic development to know a logical sequence of procedures for the fulfillment of objectives, goals and internal and external standards, which helps the manager in his decision making from an objective and relevant point of view. Likewise, the theoretical value. The expected results of the research are to have entrepreneurial entrepreneurs so that they can have their own business and, in this way, can be more competitive in the market.

This study is based on the quantitative approach by which objectives will be applied to determine the relationship between entrepreneurship and local economic development in farmers in the provinces of Virú and Chepén, 2022 and specifically i) analyze the level of entrepreneurship in farmers in the provinces of Virú and Chepén, 2022, ii) analyze the level of local economic development in farmers in the provinces of Virú and Chepén, 2022, iii) determine the relationship between entrepreneurship and the production system dimension in farmers in the provinces of Virú and Chepén, 2022, iv) determine the relationship between entrepreneurship and the sociocultural dimension in farmers in the provinces of Virú and Chepén, 2022 and v) determine the relationship between entrepreneurship and the political and administrative dimension in farmers in the provinces of Virú and Chepén, 2022.

METHODOLOGY

Type and design of research

The study was basic, descriptive, with a quantitative approach. The method used in the research work was hypothetical - deductive. With respect to the design, it was non-experimental descriptive cross-section, correlational

Variables and operationalization

The variables considered were:

Variable 1. Business entrepreneurship

Conceptual definition

Entrepreneurship implies a set of behaviors, values and beliefs that generate the well-being of a society, in turn consists of the evaluation of an entire process of development of an entrepreneurial idea as an action to start a business (Orrego, 2009).

Operational definition

It focuses on the use of the individual, environment and process dimensions considering the application of the questionnaire, through a Likert scale, for hypothesis testing.

Indicators

The individual dimension implies the consideration of (employment situation, power, investing in a business, influence and being the boss himself), in the same way, the environment that concerns the (capital, suppliers, trained personnel, transfer of products, sources of financing, facilities, experience they have and the geographical location of the place); the dimension of the indicators (economic and social relations, local institutions and values for the development process) and organization (which implies the consideration of differentiating strategies, through the new benefits considering public policies).

Scale

With an ordinal measurement scale of five alternatives the answers of 23 questions and for evaluation was considered level is good, fair and poor.

Variable 2. Local economic development

Conceptual definition

Local economic development promotes ideological, structural, cultural, economic and social changes, since it allows the improvement of the quality of life through the use of local resources, creation of new companies, offering job opportunities for the application of technologies in an established territory (Vargas et al. 2020).

Operational definition

It focuses on the use of dimensions considering the application of the questionnaire, through a Likert scale, for hypothesis testing.

Indicators

Three dimensions were considered: the production system (integrated by the productive factors, the generation of economies of scale, the increase in productivity and the competitiveness of the markets); in the same way with respect to the sociocultural that interferes (economic and social relations, local institutions and values for the development process) and finally the political and administrative (based on overcoming poverty, productivity and the integration of social programs).

Scale

With an ordinal measurement scale of five alternatives the answers of 25 questions and for evaluation were considered good, fair and deficient levels.

Population, sample, sample and unit of analysis

The population consisted of 70 farmers from the province of Virú and Chepén.

Inclusion criteria: The association of active farmers of the province of Viru and Chepén was taken into account, in the same way, those who agreed to participate in the study.

Exclusion criteria: To farmers who were not part of the association of the provinces of Virú and Chepén.

Table 1 *Population of small farmers in Virú and Chepén.*

| Provinces | Number of farmers |
|-----------|-------------------|
| Virú | 70 |
| Chepén | 70 |
| Total | 140 |

Sample: the sample was census. Therefore, we worked with the 70 farmers of both provinces.

Sampling

The sampling was non-probabilistic for convenience, according to the trial, the research was developed with all the farmers who are in an association of both provinces of La Libertad.

Unit of analysis

The unit of analysis in the present research work was the farmers of the province of Virú and Chepén of 2022.

Data collection techniques and instruments

The technique used was the survey. The instrument was the questionnaire.

Data analysis methods

Descriptive statistics frequency tables and statistical graphs were used. Inferential statistics were used to contrast the normality hypotheses and Spearman's rank correlation test in the statistical program (SPSS V26).

Validation and reliability

The evaluation instruments were validated as follows:

For the independent variable "business entrepreneurship" a "Questionnaire to collect information on business entrepreneurship" was developed, which was adapted and was already validated by expert judgment, as specified in the technical sheet, who evaluated the instrument reaching a result of excellent validity. The experts agreed that the items of the instrument are of excellent validity, with an average of 99% (equivalent to 0.99); therefore, the instrument is valid and consistent with the purposes of the research.

Reliability

In the present research, reliability was evaluated by calculating Cronbach's alpha. For the reliability of this instrument, in the first province a cronbach's alpha ($\alpha=0.965$) was obtained for both variables for 44 items, in the same way for the first variable $\alpha= 0.958$ (23 items) and with respect to the second variable $\alpha=0.918$ (20 items), in the same way for the second province for both variables it is $\alpha=0.971$ for 44 items, Similarly for the first variable $\alpha=0.959$ (23 items) and with respect to the second variable $\alpha=0.934$ (20 items), giving the instrument as excellent validity.

RESULTS

In table 2, of the total number of farmers in the province of Virú who were part of the study, 7.1% indicate that there is evidence of low-level entrepreneurship; of which 2.9% is at a low level and 4.3% at a medium level in relation to local economic development; Similarly, the 61.4% that are located at a medium level in business entrepreneurship, where 1.4% is located at a low level, 48.6% regular and 11.4% high in terms of local economic development, finally 31.4% is located at a high level in business entrepreneurship is located 10% at a medium level and 21.4% high in relation to local economic development, Since entrepreneurship is vital, since it allows the development

and growth of the locality and improvement of the quality of life of the population.

Table 2 *Cross table between entrepreneurship and local economic development in farmers in the province of Virú.*

| | | VV2: Local economic development | | | Total | |
|--------------------------------|-------|---------------------------------|---------|-------|--------|-------|
| | | Low | Average | High | | |
| VV1: Business entrepreneurship | Low | f | 2 | 3 | 0 | 5 |
| | | % | 2,9% | 4,3% | 0,0% | 7,1% |
| | Medio | f | 1 | 34 | 8 | 43 |
| | | % | 1,4% | 48,6% | 11,4% | 61,4% |
| | High | f | 0 | 7 | 15 | 22 |
| | | % | 0,0% | 10,0% | 21,4% | 31,4% |
| Total | f | 3 | 44 | 23 | 70 | |
| | % | 4,3% | 62,9% | 32,9% | 100,0% | |

In table 3, of the total number of farmers in the province of Chepén, 4.3% indicate that there is evidence of low-level entrepreneurship; of which 2.9% is located at a low level and 1.3% medium level in relation to local economic development; Also, of the 21.3% that are located at the medium level in business entrepreneurship, where 20% is located at the regular level and 4.3% high in terms of local economic development, finally 71.4% is located at a high level in business entrepreneurship is located 14.3% at a medium level and 57.1% high in relation to local economic development, since entrepreneurship improves the quality of life of the population and provides more job opportunities.

Table 3. *Cross table between entrepreneurship and local economic development in farmers in the province of Chepén.*

| | | CV2: Local economic development | | | Total | |
|--------------------------------|---------|---------------------------------|---------|-------|-------|-------|
| | | Low | Average | High | | |
| CV1: Business Entrepreneurship | Low | f | 2 | 1 | 0 | 3 |
| | | % | 2,9% | 1,4% | 0,0% | 4,3% |
| | Average | f | 0 | 14 | 3 | 17 |
| | | % | 0,0% | 20,0% | 4,3% | 24,3% |
| | High | f | 0 | 10 | 40 | 50 |
| | | % | 0,0% | 14,3% | 57,1% | 71,4% |

| | | | | | |
|-------|---|------|-------|-------|--------|
| Total | f | 2 | 25 | 43 | 70 |
| | % | 2,9% | 35,7% | 61,4% | 100,0% |

In figure 1, of the total of those who were part of the study in the province of Virú and Chepén, in the business entrepreneurship with greater relevance in the first province is located at medium level with 61% and in the second province 71% at a high level, this difference is due to the context and opportunities offered by the different organizations and local governments, to empower the small farmer. In the same way, regarding the individual dimension with greater relevance is located in the middle level with 60% and for the second in 77% high level, this is because the working and economic conditions motivate you to have your own business and to be able to start after knowing the advantages and disadvantages. Regarding the D2, environment (physical, economic and financial) in the same way is located in the middle level with 51% and high 77%, respectively, indicate that most of them have the resources to undertake, however, the rest does not, they also indicate that the cost of the products of the suppliers is high, so they seek financing from entities such as Agro ideas. In the D3, the p process (formation and development of entrepreneurship) with greater predominance is located at medium and high level with 43%, however, for the second case in 77% high, estimates that in the locality has increased entrepreneurship in small farmers since they are staple foods. and finally, in D4, of the organization (of entrepreneurs), with greater implication focuses on medium with 47% and high with 77% respectively, some consider differentiating strategies to be able to position themselves in the short term and, in addition, some of them consider innovation as an important aspect to offer new products to consumers.

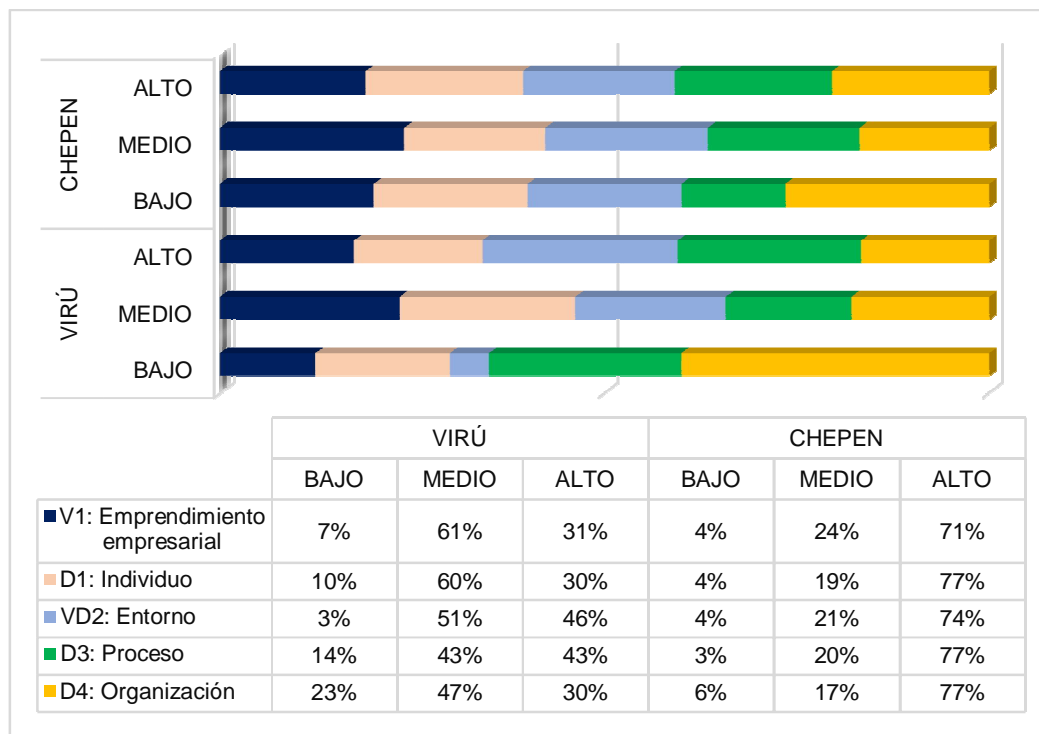


Figure 1. Analysis of the level of entrepreneurship in farmers in the provinces of Virú and Chepén.

In figure 2, of those who were part of the study of both the province of Virú and Chepén, with greater relevance focuses on local economic development at a medium level with 63% and 61% respectively. As for the d1 of the production system, 59% focuses on medium and 71% high, proportionally, it is evident that the municipality provides technical assistance and holds a contest to provide new opportunities through the *invierte.pe* for the execution of its projects. As for the d2 of the cultural partner, with greater implication focuses on the environment with 59% and in the high with 50%, correspondingly, it is due to the fact that the municipality sometimes encourages the association of farmers in order to channel the commercialization of their products through agreements with private institutions. Finally, in the d3 of the policy and administrative with greater prominence is located in 71% medium and 50% in the same level, for each of the provinces, it is considered that they work according to the guidelines of the strategic development plan of the district.

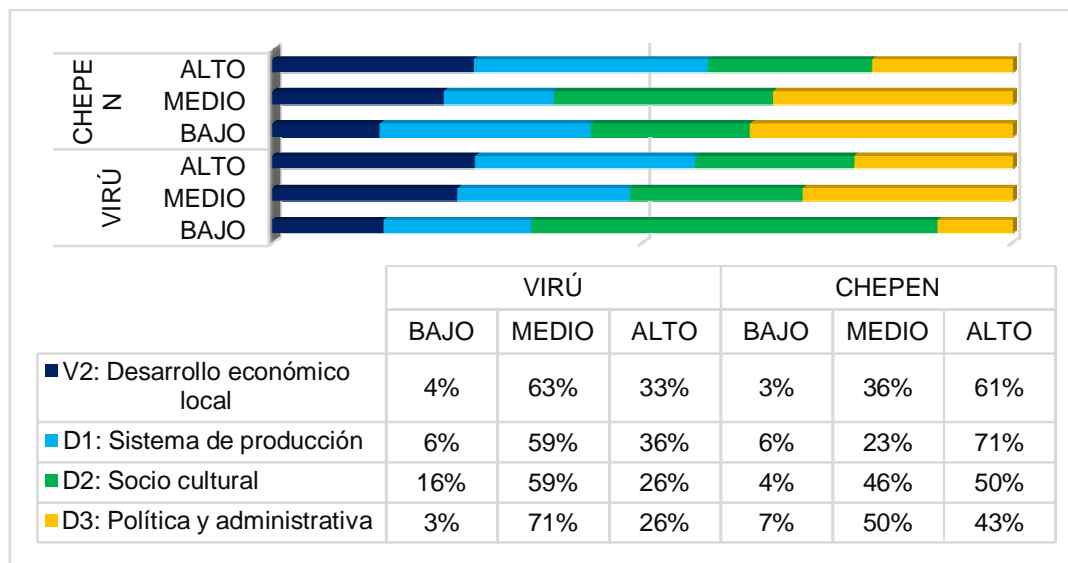


Figure 2. Analysis of the level of local economic development in farmers in the provinces of Virú and Chepén.

In table 4, of the total number of farmers in the province of Virú, 7.3% indicate that there is evidence of low-level entrepreneurship; of which 2.9% is located at a low level and 4.3% medium level in relation to the production system of local development; Likewise, of the 61.4% that are located at the medium level in business entrepreneurship, where 2.9% is located at a low level, 42.9% medium and 15.9% high in terms of the production system of local development, finally 31.4% is located at a high level in business entrepreneurship; where, 11.4% is located at a medium level and 20% high in relation to the production system of local development, since it allows to know the advantages and disadvantages motivates to promote new initiative.

Table 4. Cross table between entrepreneurship and the dimension of the production system in farmers in the province of Virú.

| | | VDD1: Production system | | | Total | |
|--------------------------------|---------|-------------------------|---------|-------|-------|--------|
| | | Low | Average | High | | |
| VV1: Business entrepreneurship | Low | f | 2 | 3 | 0 | 5 |
| | | % | 2,9% | 4,3% | 0,0% | 7,1% |
| | Average | f | 2 | 30 | 11 | 43 |
| | | % | 2,9% | 42,9% | 15,7% | 61,4% |
| | High | f | 0 | 8 | 14 | 22 |
| | | % | 0,0% | 11,4% | 20,0% | 31,4% |
| Total | | f | 4 | 41 | 25 | 70 |
| | | % | 5,7% | 58,6% | 35,7% | 100,0% |

In table 5, of the total number of farmers in the province of Chepén, 4.3% indicate that

there is evidence of low-level entrepreneurship and also focuses on a low level in the production system of local development; Likewise, of the 24.3% that are located at a moderate level in business entrepreneurship, where 1.4% is located at a low level, 17.1% medium and 5.7% high in terms of the production system of local development, subsequently 71.4% is located at a high level in business entrepreneurship; where, 5.7% is located at a medium level and 65.7% high in relation to the production system of local development, since they have the initiative to start their own business so that they can develop and grow business.

Table 5. *Cross table between entrepreneurship and the production system dimension in farmers in Chepén province.*

| | | CDD1: Production system | | | Total | |
|------------------------------------|---------|-------------------------|---------|-------|--------|-------|
| | | Low | Average | High | | |
| CV1: Emprendimiento empresarial | Low | f | 3 | 0 | 0 | 3 |
| | | % | 4,3% | 0,0% | 0,0% | 4,3% |
| | Average | f | 1 | 12 | 4 | 17 |
| | | % | 1,4% | 17,1% | 5,7% | 24,3% |
| | High | f | 0 | 4 | 46 | 50 |
| | | % | 0,0% | 5,7% | 65,7% | 71,4% |
| Total | f | 4 | 16 | 50 | 70 | |
| | % | 5,7% | 22,9% | 71,4% | 100,0% | |

En la tabla 6, del total de los agricultores de la provincia de Virú, el 7.1% indica que se evidencia un emprendimiento empresarial nivel bajo; del cual el 5.7% se centra en un nivel bajo y el 1.4% medio en relación al socio cultural del desarrollo local; además, del 61.4% que se ubican en nivel medianamente en el emprendimiento empresarial, donde el 7.1% se ubica en nivel bajo y alto, 47.1% medio en cuanto al socio cultural del desarrollo local, posteriormente el 31.4% se ubica en un nivel alto en el emprendimiento empresarial; donde, el 2.9% se ubica en un nivel bajo, 10% medio y 18.6% alto en relación al sociocultural del desarrollo local, puesto que implica la fomentación de la asociación de los agricultores a través de apoyos de distintas instituciones para impulsar la comercialización de los productos.

Tabla 6. *Tabla cruzada entre el emprendimiento empresarial y la dimensión sociocultural en los agricultores de la provincia de Virú.*

| | | VDD2: Socio cultural | | | Total | |
|------------------------------------|---------|----------------------|---------|------|-------|------|
| | | Low | Average | High | | |
| VV1: Emprendimiento empresarial | Low | f | 4 | 1 | 0 | 5 |
| | | % | 5,7% | 1,4% | 0,0% | 7,1% |
| | Average | f | 5 | 33 | 5 | 43 |
| | | % | | | | |

| | | | | | | |
|-------|------|---|-------|-------|-------|--------|
| | | % | 7,1% | 47,1% | 7,1% | 61,4% |
| | High | f | 2 | 7 | 13 | 22 |
| | | % | 2,9% | 10,0% | 18,6% | 31,4% |
| Total | | f | 11 | 41 | 18 | 70 |
| | | % | 15,7% | 58,6% | 25,7% | 100,0% |

In table 7, of the total number of farmers in the province of Chepén, 4.3% indicate that there is evidence of low-level entrepreneurship; of which 1.4% focuses on a low level and 2.9% medium in relation to the socio-cultural of local development; Likewise, of the 24.3% that are located at a medium level in business entrepreneurship, where 1.4% is located at a low level, 17.1% medium and 5.7% high in terms of the cultural partner of local development, finally, 71.4% are located at a high level in business entrepreneurship; where, 1.4% is located at a low level, 25.7% medium and 44.3% high in relation to the sociocultural of local development, since the municipality monitors small farmers in their enterprise.

Table 7. Cross table between entrepreneurship and the sociocultural dimension in farmers in Chepén province.

| | | CDD2: Socio cultural | | | Total | |
|--------------------------------|---------|----------------------|---------|-------|--------|-------|
| | | Low | Average | High | | |
| CV1: Business entrepreneurship | Low | f | 1 | 2 | 0 | 3 |
| | | % | 1,4% | 2,9% | 0,0% | 4,3% |
| | Average | f | 1 | 12 | 4 | 17 |
| | | % | 1,4% | 17,1% | 5,7% | 24,3% |
| | High | f | 1 | 18 | 31 | 50 |
| | | % | 1,4% | 25,7% | 44,3% | 71,4% |
| Total | f | 3 | 32 | 35 | 70 | |
| | % | 4,3% | 45,7% | 50,0% | 100,0% | |

In table 8, of the total number of farmers in the province of Virú, 7.1% indicate that there is evidence of low-level entrepreneurship; of which 5.7% focus on a medium level and 1.4% high in relation to local development administrative policy; In addition, of the 61.4% that are located at a medium level in business entrepreneurship, where 2.9% are located at a low level, 50% medium and 8.6% high in terms of local development administrative policies, finally, 31.4% are located at a high level in business entrepreneurship; where, 15.7% focus on a medium and high level in relation to the administrative policy of local development, since they consider their policies to work based on it.

Table 8. Cross table between entrepreneurship and the political and administrative dimension in farmers in the province of Virú.

| | | VDD3: Political and administrative | | | Total | |
|--------------------------------|---------|------------------------------------|---------|-------|--------|-------|
| | | Low | Average | High | | |
| VV1: Business entrepreneurship | Low | f | 0 | 4 | 1 | 5 |
| | | % | 0,0% | 5,7% | 1,4% | 7,1% |
| | Average | f | 2 | 35 | 6 | 43 |
| | | % | 2,9% | 50,0% | 8,6% | 61,4% |
| | High | f | 0 | 11 | 11 | 22 |
| | | % | 0,0% | 15,7% | 15,7% | 31,4% |
| Total | f | 2 | 50 | 18 | 70 | |
| | % | 2,9% | 71,4% | 25,7% | 100,0% | |

In table 9, of the total number of farmers in the province of Chepén, 4.3% indicate that there is evidence of low-level entrepreneurship; of which 2.9% focuses on a low level and 1.4% on local development administrative policy; Also, of the 24.3% that are located at the medium level in business entrepreneurship, where 4.3% are located at low and high level, 15.7% medium in terms of administrative policies of local development, finally, 71.4% are located at a high level in business entrepreneurship; where, 32.9% focus on a medium level and 38.6% high in relation to the administrative policy of local development, since they work in an articulated manner.

Table 9. Cross table between entrepreneurship and the political and administrative dimension in farmers in the province of Chepén.

| | | CDD3: Political and administrative | | | Total | |
|--------------------------------|---------|------------------------------------|---------|-------|--------|-------|
| | | Low | Average | High | | |
| CV1: Business entrepreneurship | Low | f | 2 | 1 | 0 | 3 |
| | | % | 2,9% | 1,4% | 0,0% | 4,3% |
| | Average | f | 3 | 11 | 3 | 17 |
| | | % | 4,3% | 15,7% | 4,3% | 24,3% |
| | High | f | 0 | 23 | 27 | 50 |
| | | % | 0,0% | 32,9% | 38,6% | 71,4% |
| Total | f | 5 | 35 | 30 | 70 | |
| | % | 7,1% | 50,0% | 42,9% | 100,0% | |

Table 10 shows a significant correlation ($p \leq 0.05$) positive high ($\rho = 0.770^{**}$ and $\rho = 0.811^{**}$), between entrepreneurship and local economic development in farmers in the provinces of Virú and Chepén, 2022.

Table 10. *Correlation between entrepreneurship and local economic development in farmers in the provinces of Virú and Chepén.*

| | | | Virú: Local Economic Development | Chepén: Local Economic Development |
|-------------------|-------------------------|--|--|--|
| Spearman's Rho | V/C Entrepreneurship | V1: Correlation coefficient Sig. (bilateral) | ,770** | ,811** |
| | | N | 70 | 70 |

** . The correlation is significant at level 0.01 (bilateral).

Table 11 shows a significant correlation ($p \leq 0.05$) positive high ($\rho = 0.829^{**}$ and $\rho = 0.940^{**}$), between entrepreneurship and production system in farmers in the provinces of Virú and Chepén, 2022.

Table 11. *Correlation between entrepreneurship and the production system dimension in farmers in the provinces of Virú and Chepén.*

| | | | V/D1 Production system | C/D1 Production system |
|-------------------|-------------------------|---|------------------------------|------------------------------|
| Spearman's Rho | V/C entrepreneurship | V1: Business Correlation coefficient Sig. (bilateral) | ,829** | ,940** |
| | | N | 70 | 70 |

** . The correlation is significant at level 0.01 (bilateral).

Table 12 shows a significant correlation ($p \leq 0.05$) moderate positive ($\rho = 0.635^{**}$ and $\rho = 0.516^{**}$), between business and socio-cultural entrepreneurship in farmers in the provinces of Virú and Chepén, 2022.

Table 12. *Correlation between entrepreneurship and the sociocultural dimension in farmers in the provinces of Virú and Chepén.*

| | | | V/D2 Socio- cultural | C/D2 Socio- cultural |
|-------------------|-------------------------|---|-------------------------|-------------------------|
| Spearman's Rho | V/C entrepreneurship | V1: Business Correlation coefficient Sig. (bilateral) | ,635** | ,516** |
| | | | ,000 | ,000 |

** . The correlation is significant at level 0.01 (bilateral).

Table 13 shows a significant correlation ($p \leq 0.05$) moderate and high positive ($\rho = 0.508^{**}$ and $\rho = 0.734^{**}$), respectively, between entrepreneurship and administrative policies in farmers in the provinces of Virú and Chepén, 2022.

Table 13 . *Correlation between entrepreneurship and the political and administrative dimension in farmers in the provinces of Virú and Chepén.*

| | | | V/D3 Political and administrative | C/D3: Political and administrative |
|-------------------|--------------------------------------|----------------------------|---|--|
| Spearman's Rho | V/C VI: Business entrepreneurship | Correlation coefficient | ,508 ^{**} | ,734 ^{**} |
| | | Sig. (bilateral) | ,000 | ,000 |
| | | N | 70 | 70 |

** . The correlation is significant at level 0.01 (bilateral).

DISCUSSION

With respect to the relationship between entrepreneurship and local economic development, a significant relationship between entrepreneurship and local economic development was evidenced in farmers in the provinces of Virú and Chepén. Similarly, in terms of descriptiveness, farmers in the province of Virú are located at a regular level of entrepreneurship and at a low level of local economic development. Farmers in the province of Chepén are located at a high level of entrepreneurship and local economic development. These results agree with those of Solís, Plúas and Pihuave (2022) in their article determined the relationship between entrepreneurship management as an alternative to sustainable local development, where it is evident that 68% agree that they lack basic resources being an uncertainty for the operation and sustainable business development since they are aimed at the contribution of social development as an agent of sustainable development. Similarly, Vargas, Zúñiga and Mullo (2020) in their article considered determining the relationship between entrepreneurship and its relationship with local economic development in Ecuador, as a result they obtained that 59% of enterprises have not been sustainable over time due to poor training in business management which limits profitability. These results coincide since there is poor training in entrepreneurship. Everything indicated is strengthened by Orrego's (2019) that entrepreneurship involves behavioral aspects, based on values and affirmations that form the well-being of a society, through actions that allow the initiation of the business and that lasts throughout the process. Similarly, Camino and Aguilar (2017) consider that entrepreneurship and local economic development are fundamental principles for

the improvement of a locality by providing job opportunities, which generate better income, skills and productivity based on the management of technologies and innovation with the purpose of obtaining greater business profitability.

Regarding the level of entrepreneurship in farmers in the provinces of Virú and Chepén, 2022, it is evident that, in the province of Virú and Chepén, business entrepreneurship in the first province is located at the medium level and in the second province at a high level, this difference is due to the context and opportunities offered by different organizations and local governments, to empower the small farmer. In the same way, with respect to the individual dimension it is located at the middle level and for the second at a high level. In the D2 environment is located in the medium and high level, respectively, in addition, in the D3, process is located in medium-high level, however, for the second case in a high level, and finally, in the D 4, the organization focuses on a medium-high level, respectively. These results are similar to those of Torres and Briones (2019) that the results indicated that 80.4% in terms of entrepreneurship is very low, since they do not want to take risks given the deficient communication and information for the use of the market, depending on the structures of the companies that demand coherence in sustainability taking advantage of administrative and legal skills. It is supported by Baiocchi, García and Flores (2020) that the business variable comes from the French entrepreneur that involves human activities, considering the attitude and aptitude that approve developing and solving economic problems independently and that allows you to improve the quality of life. In the same way, it is reinforced with the conceptualization of the variables, that the environment dimension, starts from the acquisition of the elements according to the needs and progress of the enterprise (Sandoval, 2012). In addition, the process dimension is originated by the conditions that originate the emergence, in order that there is the opportunity to undertake formalization that increases productivity, competitiveness and innovation. In the same way, Arias et al. (2015) considers the availability of the data of the territory in order to identify and that these can allow political and administrative spaces, also, the organizational dimension, according to WIPO (2017) considers that it has the purpose of supporting, through the practice of regulations from the induction of the organization and innovation of different ways of measuring potential.

As for the level of local economic development in farmers in the provinces of Virú and Chepén, 2022, this focuses on a medium level. As for the d1 of the production system focuses on a high level, proportionally, it is evident that the municipality provides technical assistance and holds competition to provide new opportunities through *invierte.pe* for the execution of its projects. As for the d2 of the socio-cultural, it is located at a medium and high level, correspondingly, it is due to the fact that the municipality sometimes encourages the association of farmers in order to channel the commercialization of their products through agreements with private institutions. Finally, in the d3 of the policy and administrative is located at a medium level, for each of the provinces, it is considered that they work according to the guidelines of the strategic development plan of the district. These results are consistent with those of Plascencia and Beltrán (2020) in their article that allows business articulation

considering competitiveness and the achievement of objectives and for this the main motivation is to be able to make decisions and be able to have representativeness in government policies. In addition, according to Deza and Flores (2020) as a result of poverty focused on 6.88% and this had an impact on an inequality of 6.31%, evidencing the existence of the relationship of the variables, which considers the reduction of poverty through the production of goods and services for the consumption of society. It is fortified according to the foundation to Fontaine (2015) considers that the contexts and the decrease of public expenditures taking economic development, through the subtraction of the governmental environment oriented to governments. On the other hand, according to the regulatory framework of Law 27972, article 86 that establishes the promotion of local economic development. In addition, it should be noted that the Peruvian State of MSMEs has issued rules to strengthen the development and growth of companies, with various programs aimed at reducing poverty (Tello, 2014).

Regarding the significant relationship between entrepreneurship and the production system dimension in farmers in the provinces of Virú and Chepén, entrepreneurship is located at a medium level, the production system of local development is located at a high level. This is similar to what was reported by Palma et al. (2018) obtained that 42% of companies are financed through credits from institutions, generating jobs, through the capacity to develop human potential that helps improve socioeconomic conditions, since this allows the reduction of risks and can be more competitive and increase profitability and development in the markets. In addition, it should be noted that entrepreneurship is a relevant activity managing the opportunity to make a company itself (Baiocchi et al. 2020). It is strengthened by Vargas et al. (2020) that local economic development promotes philosophical, organized, pedagogical, mercantile and trade union changes, since it allows the improvement of the quality of life through the use of local resources. Similarly, according to that of Benavides (2000) specifies that the production system implies the consideration of fruitful components, in the market, for this, technical and recruitment support was considered together with the provision of projects.

Regarding the significant relationship between business entrepreneurship and the sociocultural dimension in farmers in the provinces of Virú and Chepén, there is evidence of a medium level in business entrepreneurship and socio-cultural entrepreneurship of local development, since it implies the promotion of the association of farmers through support from different institutions to promote the commercialization of products. On the other hand, farmers in the province of Chepén are located at a high level of business and sociocultural entrepreneurship of local development, since the municipality monitors small farmers in their entrepreneurship. These results are similar to that of Valencia (2018) since 35% reflect business confidence and success, due to the inabilities they have to be able to carry out differentiating strategies that go unnoticed. It is based on that of Plaza (2019) that local development occurs due to the capacities that are developed in the productive areas within a territory considering the social and economic factors which allows the improvement of income in the community based on good decision-making for the well-being of the improvement of the quality of life.

Similarly, a relevant aspect to be taken into account is the socio-cultural, through participation and good economic relations based on values for the process of development and initiative from an economic aspect that supports the entrepreneurship of small entrepreneurs.

Regarding the significant relationship between entrepreneurship and the political and administrative dimension in farmers in the provinces of Virú and Chepén, it is evident that farmers in the province of Virú, are located at a medium level in business entrepreneurship, farmers in the province of Chepén, are located at a high level of business entrepreneurship in relation to the administrative policy of local development, since they work in an articulated way. These results agree with those of Campos and Choquehuanca (2018) since entrepreneurship promotes jobs, however, local governments do not handle indicators that allow measuring the incidence between the variables by considering policies, strategic alliances, experiences and the reality of the territory achieving a great boost in order to continue with the activities that generate optimal changes. Similarly, Mamani (2021) in his thesis determined that sustainability occurs through the use of physical resources and staff support according to lifestyle with decisions, management and integrated administrative consequences that enable the achievement of objectives individually and family. On the other hand, Barragán and Ayavín (2017) specify that local economic development depends on the capacity of involvement of society through participation, which allows to guarantee the satisfaction of basic needs as new opportunities in the sectors of education, health and employment.

CONCLUSIONS

A significant and positive relationship between entrepreneurship and local economic development was evidenced in farmers in the provinces of Virú and Chepén, 2022. The level of entrepreneurship among farmers in these two provinces was at a medium and high level, respectively. The individual, environment, process and organization dimensions were located at the medium and high level, respectively, since some consider differentiating strategies to be able to position themselves in the market in the short term. The level of local economic development in farmers in the provinces of Virú and Chepén was at a medium level. The dimensions of the production, sociocultural system was located at a medium and high level, while the political and administrative was located at a medium level. A significant and positive relationship between entrepreneurship and the dimensions of production, sociocultural, political and administrative systems was evidenced in farmers in the provinces of Virú and Chepén.

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