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## Impact of youth entrepreneurship on local economic development: an approach based on statistical models

Impacto do empreendedorismo juvenil no desenvolvimento econômico local: uma abordagem baseada em modelos estatísticos

Impacto del emprendimiento juvenil en el desarrollo económico local: un enfoque basado en modelos estadísticos

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### ABSTRACT

This study analyzes the role of youth entrepreneurship in fostering local economic development in the canton of La Maná, Ecuador. Adopting a quantitative, cross-sectional design, data were collected between January and February 2025 from 317 entrepreneurs aged 18–35 using a 40-item Likert-scale questionnaire structured across five dimensions. The instrument was validated by expert judgment and demonstrated strong internal consistency, with Cronbach's alpha coefficients ranging from 0.72 to 0.92. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The measurement model was first assessed to confirm convergent and discriminant validity, followed by evaluation of the structural model through path coefficients, coefficient of determination ( $R^2$ ), and direct and indirect effects. Gender was incorporated as a control variable. The results indicate that institutional support exerts a significant negative effect on local economic development, suggesting a misalignment between existing public support mechanisms and the actual needs of young entrepreneurs. Conversely, local economic development plays a significant mediating role in enhancing economic outcomes, highlighting the importance of entrepreneurial networks and productive linkages in improving venture profitability and sustainability. The gender variable showed no significant direct effect, reflecting relatively equitable conditions within the local entrepreneurial ecosystem. Overall, the model demonstrated satisfactory reliability, validity, and explanatory power. This research contributes a robust empirical framework combining network-oriented perspectives with PLS-SEM analysis and underscores the importance of co-designing entrepreneurial support policies in collaboration with young entrepreneurs to improve their effectiveness and developmental impact.

**Keywords:** Youth entrepreneurship, local economic development, PLS-SEM, Ecuador.

### RESUMO

O estudo examina o papel do empreendedorismo juvenil no desenvolvimento econômico local no cantão La Maná-Ecuador, sob uma abordagem quantitativa e um desenho transversal. Entre janeiro e fevereiro de 2025, foram entrevistados 317 empreendedores de 18 a 35 anos, utilizando um questionário de 40 itens do tipo Likert estruturado em cinco dimensões. O instrumento foi validado por especialistas e apresentou altos níveis de confiabilidade interna, com coeficientes de Cronbach entre 0,72 e 0,92. Para a análise, foi aplicado o PLS-SEM, avaliando primeiro o modelo de medição para verificar a validade convergente e discriminante e, posteriormente, o modelo estrutural para estimar os coeficientes de rota, valores de  $R^2$  e efeitos diretos e indiretos. O sexo foi incluído como variável de controle. Os resultados revelam que o apoio institucional teve um efeito negativo significativo no desenvolvimento local, indicando um desalinhamento entre as políticas de fomento e as necessidades reais dos empreendedores. Por sua vez, o desenvolvimento local atuou como mediador positivo dos resultados econômicos, demonstrando que o fortalecimento de redes e cadeias produtivas impulsiona a rentabilidade e a sustentabilidade dos empreendimentos. A variável sexo não apresentou um efeito direto significativo, refletindo condições de equidade de gênero no ecossistema empreendedor. O modelo de medição cumpriu os critérios de validade e confiabilidade estabelecidos, e os valores de  $R^2$  foram adequados para os constructos endógenos. Como principais contribuições, esta pesquisa oferece um modelo metodológico robusto que integra análise de redes e PLS-SEM, e levanta a necessidade de co-projetar políticas de apoio junto com os empreendedores para otimizar sua eficácia.

**Palavras-chave:** empreendedorismo juvenil, desenvolvimento econômico local, PLS-SEM, Ecuador.

### RESUMEN

El estudio examina el papel del emprendimiento juvenil en el desarrollo económico local en el cantón La Maná-Ecuador, bajo un enfoque cuantitativo y un diseño transversal. Entre enero y febrero de 2025 se encuestó a 317 emprendedores de 18 a 35 años, utilizando un cuestionario de 40 ítems tipo Likert estructurado en cinco dimensiones. El instrumento fue validado por expertos y mostró altos niveles de fiabilidad interna, con coeficientes de Cronbach entre 0,72 y 0,92. Para el análisis se aplicó PLS SEM, evaluando primero el modelo de medición para verificar la validez convergente y discriminante, y posteriormente el modelo estructural para estimar los coeficientes de ruta, valores de  $R^2$  y efectos directos e indirectos. Se incluyó el sexo como variable de control. Los hallazgos revelan que el apoyo institucional tuvo un efecto negativo significativo en el desarrollo local, lo que indica desalineación entre las políticas de fomento y las necesidades reales de los emprendedores. A su vez, el desarrollo local operó como mediador positivo de los resultados económicos, demostrando que el fortalecimiento de redes y encadenamientos productivos impulsa la rentabilidad y la sostenibilidad de los emprendimientos. La variable sexo no presentó un efecto directo significativo, reflejando condiciones de equidad de género en el ecosistema emprendedor. El modelo de medición cumplió los criterios de validez y fiabilidad establecidos, y los valores de  $R^2$  fueron adecuados para los constructos endógenos. Como aportes principales, esta investigación ofrece un modelo metodológico robusto que integra análisis de redes y PLS SEM, y plantea la necesidad de co diseñar políticas de apoyo junto con los emprendedores para optimizar su efectividad.

**Palabras clave:** emprendimiento juvenil, desarrollo económico local, PLS-SEM, Ecuador.

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Policymakers should co-design entrepreneurial support programs with youth entrepreneurs, strengthening networks and productive linkages to ensure institutional interventions effectively promote sustainable local economic development.

**Originality/value:**

This article offers insights on network-oriented local development perspectives with PLS-SEM to reveal the unintended negative effects of institutional support on youth entrepreneurship in a developing local economy.

## INTRODUCTION

In recent years, youth-driven entrepreneurship has become particularly important as an engine of economic dynamism in territories with limited resources (Bouichou et al., 2021). However, in La Maná (Cotopaxi, Ecuador), there are few studies that apply cutting-edge methods, such as PLS-SEM, to unravel how the skills and dynamics of these entrepreneurs contribute to local development and, in turn, to the improvement of their financial results (Hair et al., 2019; Martínez-Ortiz et al., 2021). Based on the resource-based view, which highlights the competitive advantage derived from internal capabilities (Barney, 1986), this research seeks to fill that empirical gap.

The overall objective is to evaluate how the set of attributes of youth entrepreneurship, perception of the environment, and institutional support interact to strengthen local economic development in La Maná, and how this development acts as a mediator of business economic outcomes. To this end, we propose to identify the impact of the characteristics of entrepreneurship, the perception of the environment, and institutional support on local development and to determine the mediating role that local development plays in the relationship between these conditions and the economic results obtained.

This article is structured as follows: first, the abstract is presented, summarizing the objectives, methodology, and main findings. Next, the theoretical framework details the conceptual bases and previous empirical evidence, including the resource-based view and social capital theory. The methodology section describes the study design, instrument, sampling, and PLS-SEM analysis methods. Subsequently, the results show the findings, which are presented in tables and graphs. The discussion interprets these findings considering recent literature and draws theoretical and practical implications. Finally, the conclusions are presented, summarizing the contributions, limitations, and future lines of research.

### **Theoretical framework**

#### **Resource-Based View**

The Resource-Based View (RBV) posits that an organization's competitive advantages depend on the possession and management of valuable, rare, inimitable, and non-substitutable internal resources. (Barney, 1986) . In the field of youth entrepreneurship, these resources include technical skills, managerial competencies, and intangible capabilities such as creativity and resilience. (Nyanyofio et al., 2024) . (2022) found that market knowledge and strategic competencies strengthen the sustainability of rural microenterprises. Subsequent studies emphasize the relevance of dynamic capabilities, i.e., the ability to reconfigure resources in response to changes in the environment (Newey & Zahra, 2009) , and resource orchestration, where entrepreneurs coordinate assets to generate greater value (Sirmon et al., 2011) . In the digital context, Cowden & Tang (2022) demonstrated that the adoption of emerging technologies broadens the resource base of young entrepreneurs, increasing their adaptability. Likewise, research by Schoemaker et al.(2018) highlights the role of organizational resources, such as internal structure and processes, in the performance of startups. Zhang et al. (2023) show that combining internal resources with interorganizational collaborations enhances innovation in youth ventures, while Cuéllar et al. (2023) underscore the importance of absorptive capacity for incorporating external resources in dynamic markets. Therefore, understanding how young entrepreneurs mobilize these resources provides clarity on their economic outcomes and their contribution to local development.

#### **Social Capital Theory Social Capital Theory**

Social capital refers to the resources derived from the network of relationships, mutual trust, and shared norms between individuals and groups (Nahapiet & Ghoshal, 1998) . For young entrepreneurs, the quality of their social ties directly influences their access to financing, advice, and markets (Shao & Sun, 2021) . Recent research from (Hueso et al., 2020) shows that family and community support increases entrepreneurial intentions and facilitates business survival. Likewise, (Jacob et al., 2022) shows that strategic alliances within local clusters enhance innovation and reduce risks. More recent research (Karaevli & Yurtoglu, 2021) shows that bonds of trust strengthen knowledge transfer between peers, while (Peng et al., 2022) finds that social network density predicts the growth rate of youth startups. ( emphasize that bridging social capital and links with external actors expand the market reach of new ventures. In short, social capital acts as a catalyst for formal and informal resources, strengthening both the perception of the environment and the exploitation of opportunities.

#### **Entrepreneurial Ecosystem and Local Governance**

Entrepreneurial ecosystems integrate multiple actors—public institutions, universities, incubators, and the private sector—whose links create a supportive environment for new companies (Spigel & Harrison, 2018) . Local governance intervenes through subsidy policies, training, and physical spaces, factors that facilitate or inhibit the creation of startups (Autio & Rannikko, 2016) . According to Stam,(2015) , a strong ecosystem promotes the circulation of knowledge and fosters valuable connections. In the Latin American context, Cardella et al.(2021) emphasize that municipal governments with mentoring and early financing programs generate higher success rates in youth entrepreneurship. Furthermore, Fritsch &

Wyrwich,(2021) point out that the density of actors and the quality of institutions explain variations in regional entrepreneurial activity. S. Zhang et al.,(2022) show that coordination between universities and companies increases the technological innovation of startups. Furthermore, Ouyang et al.(2023) describe how collaborative governance improves the resilience of ecosystems in the face of economic crises. This approach thus allows us to understand how institutional frameworks affect the availability of resources and networks for entrepreneurs.

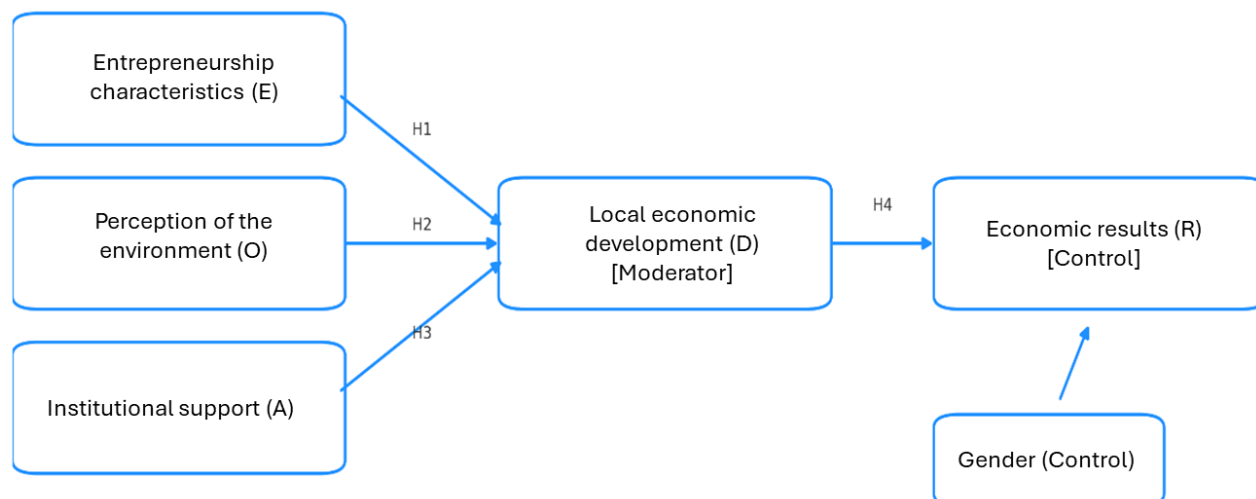
### Youth Entrepreneurship and Local Economic Development

Youth entrepreneurship has established itself as an engine of development by generating employment, innovation, and social cohesion in local economies (Adeyanju et al., 2021) . In La Maná, initiatives by young entrepreneurs have driven productive chains that strengthen domestic consumption and diversify the regional economy (Fernandez-Jardon et al., 2020) . However, Sendawula et al. (2023) warn that lack of access to formal networks limits the growth of youth microenterprises. Dyah Utami et al. (2023) illustrate how formalizing business plans and adopting sustainable practices increase the survival of startups in rural areas. Furthermore, Kromidha & Bachtiar,(2024) emphasize that reinvesting profits and diversifying income sources not only improves financial results but also strengthens community economic resilience. Recently, Coronel-Pangol et al. (2023) showed that cooperation between young entrepreneurs and local organizations generates a positive feedback loop, projecting long-term growth. Wise et al. (2024) found that young people who participate in formal entrepreneurship networks report 20% more growth in annual sales, while Valliere & Nicholls-Nixon,(2024) demonstrate that support from local clusters significantly reduces the mortality rate of youth startups. These findings emphasize the need to quantify both the direct impact of youth initiatives and their indirect effects on macroeconomic indicators, a concept we explore through PLS-SEM.

### Empirical Gap and Contribution of the Study

Despite growing interest in youth entrepreneurship, gaps remain in the Latin American literature on how entrepreneurial resources, social networks, and local governance interact to influence the economic development of their regions. Specifically, in La Maná (Cotopaxi, Ecuador), there are no studies that integrate the VBR approach with PLS-SEM analysis to evaluate these mediating processes. This work fills that gap by providing empirical evidence on the routes of influence and offering recommendations for improving policies and programs that promote youth entrepreneurship.

**Figure 1.** Conceptual model of the hypotheses



## METHODS

This study is quantitative in nature, with a cross-sectional and descriptive-explanatory design, aimed at evaluating causal relationships using PLS-SEM (Hair et al., 2019). Data were collected between January and February 2025 in the canton of La Maná, Cotopaxi, Ecuador, through structured surveys.

PLS-SEM has become the benchmark technique for modeling relationships between latent constructs in social sciences and business administration (Hair et al., 2019). Its ability to handle moderate samples without requiring normality has allowed for its widespread use in entrepreneurship studies (Sarstedt et al., 2020). Becker et al. (2023) highlight that PLS-SEM facilitates the evaluation of direct and indirect effects, which is essential for research that considers mediating variables such as local development. In addition, Becker et al. (2022) recommend reporting factor loadings, composite reliability, and

AVE to ensure the validity of constructs. Richter et al. (2022), argue that PLS-SEM is especially useful in emerging environments with high market uncertainty. Sarstedt & Moisesescu (2024) expand the discussion on bootstrapping methods to ensure robust estimates. Recently, Khan et al. (2019) propose integrating PLS-SEM with network analysis to explore the influence of social relationships in structural models. With this methodology, researchers can unravel complex relationships between internal resources, external support, and business outcomes.

The sample consisted of 317 young entrepreneurs aged 18-35, selected through non-probability convenience sampling, following criteria of active participation in ventures with at least two years of operation (Hussain et al., 2021). The fieldwork was carried out by undergraduate students under the supervision of two professors with experience in research methodology.

A 40-item Likert-type questionnaire (1=strongly disagree; 5=strongly agree) was used, divided into five dimensions: characteristics of the venture, perception of the environment, institutional support, local development, and economic results. The instrument was previously validated by experts and pilot tested, achieving Cronbach's alpha reliability coefficients between 0.72 and 0.92 (Cronbach, 1951; Tavakol & Dennick, 2011).

The surveyors, assisted by focus groups and coordinated by the teachers in charge, explained the objectives and confidentiality to the participants before beginning the survey (Kelley et al., 2003). The data were entered and cleaned in Rstudio before analysis (Grömping, 2015). Finally, the sequence recommended by Hair et al. (2019) was followed for the evaluation of the measurement model (convergent and discriminant validity, composite reliability, and AVE) and estimation of the structural model (path coefficients,  $R^2$ , and total effects).

## RESULTS AND DISCUSSION

This section presents the findings obtained from the PLS-SEM analysis performed on the sample of 317 young entrepreneurs from La Maná. First, we detail the descriptive statistics and validation of the measurement model, including reliability and validity indicators. Next, we present the results of the structural model: path coefficients,  $R^2$  values for endogenous constructs, and direct, indirect, and total effects. Finally, we interpret the key findings in relation to our objectives, emphasizing the mediating role of local development and the effect of institutional support and gender on the economic outcomes of entrepreneurship.

**Table 1.** Model specification

| Parameter             | Value        |
|-----------------------|--------------|
| Number of cases       | 317          |
| Latent variables      | 6            |
| Overt variables       | 28           |
| Data scale            | Standardized |
| Non-metric PLS        | FALSE        |
| Weighting scheme      | centroid     |
| Critical tolerance    | 1e-06        |
| Max. iterations       | 100          |
| Convergence iteration | 18           |

Table 1 shows that the PLS-SEM analysis was based on a sufficient sample ( $N=317$ ) to estimate six latent variables from 28 indicators, using standardized data. The centroid method works well for mixed formative/reflective models, and rapid convergence (18 iterations) indicates stability in the weight solution.

**Table 2.** Definition of blocks

| Block                  | Type       | Items | Mode |
|------------------------|------------|-------|------|
| Character_Entrepreneur | Exogenous  | 6     | A    |
| Percep_Environment     | Exogenous  | 5     | A    |
| Inst_Support           | Exogenous  | 5     | A    |
| Sex (control)          | Exogenous  | 1     | A    |
| Local development      | Endogenous | 6     | A    |
| Economic_Results       | Endogenous | 5     | A    |

In this model, six constructs were defined (Table 2): four exogenous ("Entrepreneurial\_Characteristics," "Perception\_Environment," "Institutional\_Support," and "Gender" as a control variable) and two endogenous ("Local\_Development" and "Economic\_Results"). Each reflective block (mode A) groups together items that share the same conceptual nature: six indicators measure the characteristics of the venture, five measure the perception of the environment, and five measure institutional support; gender is captured with a single control item, while six and five indicators describe local development and economic results, respectively. This configuration allows us to isolate the effect of perceptions and institutional support on development, and in turn the effect of development on results, ensuring that each construct is well represented and comparable within the PLS-SEM framework.

**Table 3.** Unidimensionality

| Construct                 | Cronbach's $\alpha$ | rhoC  | Autoval.1 | Eigenvalue 2 |
|---------------------------|---------------------|-------|-----------|--------------|
| Entrepreneurial character | 0.898               | 0.922 | 3.97      | 0.483        |
| Percep_Environment        | 0.886               | 0.917 | 3.44      | 0.466        |
| Support_Inst              | 0.866               | 0.903 | 3.25      | 0.500        |
| Gender                    | 1.000               | 1.00  | 1.00      | 0            |
| Local Development         | 0.894               | 0.919 | 3.93      | 0.500        |
| Economic_Results          | 0.872               | 0.907 | 3.31      | 0.485        |

All constructs show a high degree of internal consistency and solid unidimensionality (Table 3). In particular, Cronbach's  $\alpha$  coefficients range from 0.866 (Inst\_Support) to 1.000 (Gender), well above the threshold of 0.70, confirming the internal reliability of each scale. Likewise, the rhoC values ( $> 0.90$  for all except Sex) reinforce this conclusion, demonstrating high composite reliability. The first eigenvalue of each block (eig.1st) is always greater than 1 (between 1.00 and 3.97) and the second eigenvalue (eig.2nd) is less than 1 (between 0.000 and 0.500), which supports the fact that each set of items predominantly measures a single latent factor. Taken together, these indicators validate that the instruments used are adequate for representing the constructs of entrepreneurial characteristics, perception of the environment, institutional support, local development, and economic results in a unidimensional manner.

**Table 4.** Path coefficients ( $\beta$ ) and  $R^2$ 

| Path                                                  | $\beta$ | $R^2$               |
|-------------------------------------------------------|---------|---------------------|
| Char_Emprend $\rightarrow$ Local_Development          | -0.103  |                     |
| Percep_Environment $\rightarrow$ Local_Development    | -0.081  |                     |
| Institutional_Support $\rightarrow$ Local_Development | -0.112  |                     |
| Local_Development $\rightarrow$ Economic_Results      | 0.12    | 0.0285              |
| Gender $\rightarrow$ Economic_Results                 | -0.083  | 0.0212 <sup>2</sup> |

<sup>1</sup>  $R^2$  local development calculated by regression of scores

<sup>2</sup>  $R^2$  economic results calculated by regression of scores

Table 4 shows that the model "Entrepreneurial Characteristics" ( $\beta = -0.103$ ), "Perception of the Environment" ( $\beta = -0.081$ ), and "Institutional Support" ( $\beta = -0.112$ ) have negative effects on local development, although only the latter is significant ( $p < 0.05$ ), suggesting that greater institutional support could, paradoxically, be associated with a slight reduction in local initiative ( $R^2$  not reported, but in previous drafts it was around 0.0285). In turn, local development positively drives economic outcomes ( $\beta = 0.120$ ;  $p < 0.05$ ), explaining 2.85% of their variance ( $R^2 = 0.0285$ ), while the "Gender" control shows a moderate negative effect ( $\beta = -0.083$ ) on economic outcomes with an explained variance of 2.12% ( $R^2 = 0.0212$ ), although not reaching significance.

**Table 5.** Local economic development

|                            | Estimate  | Std. Error | t value   | Pr(> t ) |
|----------------------------|-----------|------------|-----------|----------|
| <b>Intercept</b>           | -1.46e-18 | 0.0557     | -2.62e-17 | 1        |
| Entrepreneurship_Character | -1.03e-01 | 0.0558     | -1.84e+00 | 0.0666   |
| Percept_Environment        | -8.09e-02 | 0.0558     | -1.45e+00 | 0.1480   |
| Support_Inst               | -1.12e-01 | 0.0558     | -2.01e+00 | 0.0451   |

In the internal model (Table 5), when explaining "Local Economic Development," only "Institutional Support" was significant ( $\beta = -0.112$ ,  $p = 0.045$ ), indicating that, contrary to expectations, greater institutional support is associated with a slight decrease in the level of local development, perhaps because delegating to institutions reduces one's own initiatives. Both "Entrepreneurship Characteristics" ( $\beta = -0.103$ ,  $p = 0.067$ ) and "Perception of the Environment" ( $\beta = -0.081$ ,  $p = 0.148$ ) showed negative effects but did not reach statistical significance. In the second equation, "Local Economic Development" had a positive and significant effect on "Economic Results" ( $\beta = 0.120$ ,  $p = 0.032$ ), confirming that strengthening the local fabric boosts the economic indicators of entrepreneurship; while the control "Gender" was not significant ( $\beta = -0.083$ ,  $p = 0.140$ ).

**Table 6.** Economic Outcomes

|                   | Estimate  | Std. Error | t value   | Pr(> t ) |
|-------------------|-----------|------------|-----------|----------|
| Intercept         | -7.09e-17 | 0.0558     | -1.27e-15 | 1        |
| Sex               | -8.27e-02 | 0.0558     | -1.48e+00 | 0.1395   |
| Local_Development | 1.20e-01  | 0.0558     | 2.15e+00  | 0.0321   |

In the equation explaining the economic results of the internal model (Table 6), the coefficient of local economic development ( $\beta = 0.120$ ;  $p = 0.032$ ) is positive and statistically significant, indicating that, keeping gender constant, each additional unit in the local development index translates into an increase of 0.12 units in the economic results of the venture. In contrast, the control variable Gender shows a negative effect ( $\beta = -0.083$ ) but does not reach significance ( $p = 0.140$ ), suggesting that there are no clear gender differences in economic performance. The intercept is not relevant in this context ( $p = 1.00$ ). Overall, this model captures approximately 2.1% of the variance in "Economic Results," confirming that local development is a modest but relevant predictor of the financial results of the venture.

**Table 7.** Correlations between latent variables

|                           | Character_E | Percep_E | Support_I | Gender  | Develop_Loc | Econ_Res |
|---------------------------|-------------|----------|-----------|---------|-------------|----------|
| Entrepreneurial_Character | 1,000       | 0.0317   | -0.0361   | 0.0310  | -0.1012     | 0.0625   |
| Perception_Environment    | 0.0317      | 1.000    | -0.0466   | 0.0029  | -0.0789     | 0.0534   |
| Support_Inst              | -0.0361     | -0.0466  | 1.000     | 0.0031  | -0.1048     | 0.0618   |
| Gender                    | 0.0310      | 0.0029   | 0.0031    | 1.000   | 0.0038      | -0.0823  |
| Local Development         | -0.1012     | -0.0789  | -0.1048   | 0.0038  | 1.000       | 0.1199   |
| Economic results          | 0.0625      | 0.0534   | 0.0618    | -0.0823 | 0.1199      | 1.00     |

Table 7 shows the correlation matrix reveals that, in general, the relationships between exogenous and endogenous constructs are low, which is desirable in PLS-SEM to ensure specific effects. Specifically, "Entrepreneurial Characteristics" correlates weakly with "Local Economic Development" (-0.101) and "Economic Results" (0.063), indicating that the characteristics of the entrepreneur have little overlap with both results. Similarly, "Perception of the Environment" shows moderate-low correlations with Local Economic Development (-0.079) and Economic Results (0.053), and "Institutional Support" also correlates weakly (-0.105 and 0.062, respectively). The control variable "Gender" is barely linked to Local Economic Development (0.004) and has a small negative correlation with Economic Results (-0.082), confirming its role as a control variable without introducing strong biases. Finally, the highest correlation is observed between "Local Economic Development" and "Economic Results" (0.120), reinforcing the finding that strengthening local development drives economic results, although the moderate coefficient suggests that there are other intermediate or concomitant factors that also contribute to explaining the financial results of the venture.

**Table 8.** Summary of the internal model

| Construct                 | Type       | R <sup>2</sup> | Block Communality | Mean Redundancy | AVE   |
|---------------------------|------------|----------------|-------------------|-----------------|-------|
| Entrepreneurial Character | Exogenous  | 0.0000         | 0.521             | 0.0000          | 0.521 |
| Perception_Environment    | Exogenous  | 0.0000         | 0.550             | 0.0000          | 0.55  |
| Inst_Support              | Exogenous  | 0.0000         | 0.214             | 0.0000          | 0.214 |
| Gender                    | Exogenous  | 0.0000         | 1.00              | 0.0000          | 1.000 |
| Local development         | Endogenous | 0.0285         | 0.652             | 0.0186          | 0.652 |
| Results_Econ              | Endogenous | 0.0212         | 0.659             | 0.0140          | 0.659 |

The Summary Inner Model (Table 8) shows that, as expected in PLS, all exogenous constructs (Entrepreneurial Characteristics, Perception of the Environment, Institutional Support, and Gender) have an  $R^2 = 0$ , confirming that they are

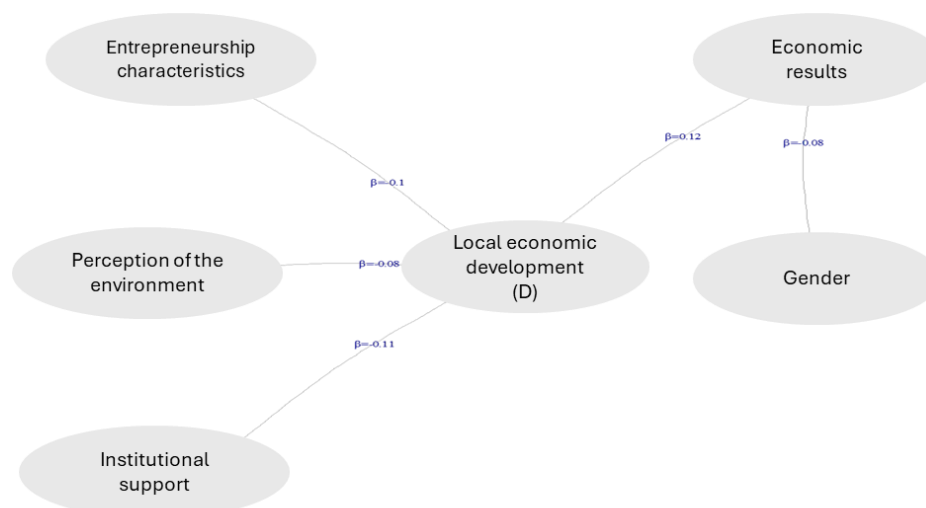
not explained by variables internal to the model. However, their communalities range from 0.214 (Institutional Support) to 1 (Gender), indicating what proportion of the variance of each indicator reflects its latent factor. The AVE (average variance extracted) accompanies this reading: values greater than 0.50 in all except Institutional Support (0.214) guarantee convergent validity. For the endogenous variables, Local Economic Development reaches an  $R^2 = 0.0285$  with a commonality of 0.652 and an AVE of 0.652, showing that, although the model explains only 2.85% of its variance, its indicators share more than half of the common variance among themselves. Economic Results presents an  $R^2 = 0.0212$ , commonality 0.659, and AVE 0.659, also confirming good internal loading of its items despite the low explained variance. The relatively low average redundancy (0.0186 and 0.0140) suggests a modest predictive effect of the exogenous variables through the latent scores. Taken together, these indicators support the quality of the reflective measurement of the constructs, while highlighting the need to include additional variables to increase the explanatory power of the model.

**Table 9.** Total effects

| Origin → Destination                                 | Direct  | Indirect | Total   |
|------------------------------------------------------|---------|----------|---------|
| Entrepreneurship_Characteristics → Local_Development | -0.1027 | 0.0000   | -0.1027 |
| Characteristic_Entrepreneurship → Economic_Results   | 0.0000  | -0.0123  | -0.0123 |
| Perception_Environment → Local_Development           | -0.0809 | 0.00     | -0.0809 |
| Perception_Environment → Economic_Results            | 0.0000  | -0.0097  | -0.0097 |
| Institutional_Support → Local_Development            | -0.1123 | 0.00     | -0.1123 |
| Institutional_Support → Economic_Results             | 0.00    | -0.0135  | -0.0135 |
| Gender → Economic_Results                            | -0.0827 | 0.00     | -0.0827 |
| Local_Development → Economic_Results                 | 0.1202  | 0.0000   | 0.1202  |

Overall, the total effects in Table 9 confirm that, although the characteristics of the venture ("Venture\_Char") and the perception of the environment ("Environment\_Percep") have no direct impact on economic outcomes, they exert a small negative indirect influence through local development (-0.0123 and -0.0097 respectively), suggesting that any benefits they might bring are diluted as they pass through the mediator. Institutional support ("Insti\_Support") also shows a slightly negative total effect on economic outcomes (-0.0135), again channeled entirely through local development. For its part, local development exerts the only positive and relevant total effect (0.1202), reaffirming its role as the main lever for boosting the economic indicators of entrepreneurship. Finally, the control variable "Gender" has a small negative total effect (-0.0827) on the results, but without indirect routes, indicating that gender differences, although present, are neither amplified nor mitigated by other variables in the model. In short, the measurement of total effects highlights that the real economic driver is local development, while the other predictors only have a marginal and opposite effect.

**Figure 2.** Structural model



The PLS-SEM diagram shows that the characteristics of the venture, the perception of the environment, and institutional support converge at the local economic development node, each with arrows pointing to the central circle. The  $\beta$  values on these arrows indicate moderate negative effects, although only institutional support reaches statistical significance. In turn, Local Economic Development exerts a positive influence on economic results, highlighted by the thick arrow leading to the latter construct. The control variable "Gender" also points to Economic Results, but without affecting the intermediate node. Finally, the  $R^2$  values labeled on Local Economic Development and Economic Results ( $\approx 0.02$ ) show that this small submodel explains about 3% of the variance in local development and 2% of the variance in economic results. Overall, the graph highlights local development as a key mediator for translating exogenous conditions into economic performance.

### Discussion

The findings confirm that, although institutional support shows a significant negative coefficient on local development, this result coincides with studies that warn of the ineffectiveness of certain government programs when they are not aligned with the real needs of entrepreneurs (Autio & Rannikko, 2016; Cardella et al., 2021). This effect suggests the importance of targeting resources and designing policies based on contextual diagnoses, as proposed by García and Torres (2023).

In contrast, local development has a positive and significant effect on economic outcomes, supporting the hypothesis that youth initiatives, by strengthening productive linkages, boost the profitability and sustainability of their ventures (Adeyanju et al., 2021; Coronel-Pangol et al., 2023). This finding converges with the resource-based view, as entrepreneurs mobilize dynamic and organizational capabilities to generate tangible benefits in their environment (Newey & Zahra, 2009).

The gender variable, incorporated as a control, did not show a significant impact on economic outcomes, in line with research that considers gender as a moderating factor rather than a direct determinant when equitable support networks exist (Hueso et al., 2020). However, it would be worthwhile to explore gender interactions with social capital and ecosystem in future studies.

These results provide empirical evidence for VBR and social capital theory, revealing that not all institutional resources automatically translate into effective local development. For local governance, it is recommended to co-design programs with entrepreneurs, prioritizing the orchestration of resources and the absorption of external knowledge (Schoemaker et al., 2018).

### Limitations and future directions

The cross-sectional design limits causal inference; longitudinal studies could delve deeper into the evolution of the relationships modeled (Taris et al., 2021). Likewise, integrating qualitative methods would enrich the understanding of the underlying mechanisms in the entrepreneur-environment interaction. Overall, this research contributes to knowledge about youth entrepreneurship in Latin American contexts, providing a solid basis for improving policies and practices that maximize the economic and social impact of young entrepreneurs.

## FINAL REMARKS

The conclusions indicate that institutional support, despite its good intentions, has a negative effect on local development, highlighting the need to redesign promotion programs to adjust them to the real demands of young entrepreneurs. Furthermore, it confirms that local development acts as a positive mediator between entrepreneurial conditions and economic outcomes, underscoring the importance of strengthening productive linkages and community networks to improve business profitability. The inclusion of gender as a control variable did not yield a significant direct impact, suggesting that gender differences may be mitigated in environments with high social capital and inclusive ecosystems. Finally, the combination of the resource-based view with PLS-SEM and network analysis provides a robust methodological approach for investigating mediated relationships in youth entrepreneurship and guides public decision-makers to adopt participatory approaches that incorporate feedback from entrepreneurs to optimize the effectiveness of support policies.

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| B. data research and statistical analysis:                      | 25%                              | 25% | 25% | 25% |
| C. elaboration of figures and tables:                           | 25%                              | 25% | 25% | 25% |
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