Revista Iberoamericana para la Investigación y el Desarrollo Educativo
ISSN 2007 - 7467

https://doi.org/10.23913/ride.v13i25.1273

Artículos científicos

El apoyo educativo para el emprendimiento y su relación con las intenciones emprendedoras de los estudiantes universitarios

Educational support for entrepreneurship and its relationship with the entrepreneurial intentions of university students

Apoio educacional ao empreendedorismo e sua relação com as intenções empreendedoras de estudantes universitários

Mario Alberto Villarreal-Álvarez
Universidad Autónoma de Tamaulipas, México
valvarez@docentes.uat.edu.mx
https://orcid.org/0000-0003-0605-7633

Ramón Ventura Roque-Hernández
Universidad Autónoma de Tamaulipas, México
rvhernandez@uat.edu.mx
https://orcid.org/0000-0001-9727-2608

Resumen

Introducción: El emprendimiento es un tema relevante para los países desarrollados o en desarrollo, pues tiene un efecto positivo sobre su crecimiento económico. La actitud emprendedora es una cualidad deseable en los estudiantes universitarios, quienes son de alto interés en la educación e investigación del emprendimiento, ya que en esa etapa las personas definen sus proyectos de vida. **Objetivo:** La presente investigación se realizó con el objetivo de determinar si el apoyo educativo para el emprendimiento (AEE) está relacionado con la intención emprendedora (IE) de los estudiantes universitarios. **Método:** Participaron 138 estudiantes de tres programas académicos: contaduría pública (n = 43), administración (n = 75) y comercio exterior (n = 20), quienes contestaron un cuestionario en línea. Con el *software* JASP se logró establecer correlación

entre IE y AEE a través de pruebas de Spearman. Primero, se analizó la totalidad de los datos y después, cada programa académico por separado. También se analizaron diferencias en IE y AEE entre los programas académicos a través de la prueba Kruskal-Wallis. **Resultados:** Se encontró una correlación positiva, de moderada a fuerte (Rho de Spearman = 0.572, p = 0.00) entre la AE de los estudiantes y el AEE. No existieron diferencias significativas en los niveles de AE ni de AEE entre los tres programas académicos (prueba Kruskal-Wallis, p > 0.05). La correlación positiva, de moderada a fuerte se encontró también en cada programa analizado: contaduría pública (rho = 0.45, p=0.002), administración (rho = 0.664, p = 0.000) y comercio exterior (rho = 0.480, p = 0.032). **Conclusiones:** Se encontraron evidencias que apoyan la hipótesis de que el AEE está relacionado positivamente con la AE de los estudiantes.

Palabras clave: *entrepreneur*, educación superior, trabajador independiente.

Abstract

Introduction: Entrepreneurship is a relevant topic for developed or developing countries, as it has a positive effect on their economic growth. Entrepreneurial attitude is a desirable quality in university students, who are of high interest in entrepreneurship education and research, since at that stage people define their life projects. **Objective**: This research was conducted with the objective of determining whether educational support for entrepreneurship (ESE) is related to the entrepreneurial intention (EI) of university students. **Method**: Participants were 138 students from three academic programs: public accounting (n=43), administration (n=75) and foreign trade (n=20) participated and answered an online questionnaire. Using JASP software, correlations between EI and ESE were established through Spearman tests. First, the data were analyzed as a whole and then each academic program separately. Differences in EI and ESE among academic programs were also analyzed using the Kruskal-Wallis test. **Results**: A positive, moderate to strong correlation (Spearman's Rho = 0.572, p =0.00) was found between students' EI and ESE. There were no significant differences in the levels of EI or ESE among the three academic programs (Kruskal-Wallis test, p > 0.05). Positive, moderate to strong correlation was also found in each program analyzed: public accounting (rho = 0.45, p=0.002), administration (rho=0.664, p=0.000) and foreign trade (rho=0.480, p=0.032). **Conclusions**: Evidence was found to support the hypothesis that ESE is positively related to students' EI.

Keywords: Entrepreneurship, Higher Education, Self employed.

Revista Iberoamericana para la Investigación y el Desarrollo Educativo
ISSN 2007 - 7467

Resumo

Introdução: O empreendedorismo é um tema relevante para países desenvolvidos ou em desenvolvimento, pois tem um efeito positivo no seu crescimento econômico. A atitude empreendedora é uma qualidade desejável em estudantes universitários, altamente interessados em educação e pesquisa em empreendedorismo, pois nesta fase as pessoas definem seus projetos de vida. Objetivo: A presente investigação foi realizada com o objetivo de determinar se o apoio educacional ao empreendedorismo (AEE) está relacionado com a intenção empreendedora (IE) de estudantes universitários. Método: participaram 138 alunos de três cursos acadêmicos: contabilidade pública (n = 43), administração (n = 75) e comércio exterior (n = 20), que responderam a um questionário online. Com o software JASP, foi possível estabelecer uma correlação entre IE e AEE por meio de testes de Spearman. Primeiramente, todos os dados foram analisados e, em seguida, cada programa acadêmico separadamente. As diferenças de IE e ESA entre os programas acadêmicos também foram analisadas por meio do teste de Kruskal-Wallis. Resultados: Foi encontrada uma correlação positiva moderada a forte (Rho de Spearman = 0,572, p = 0,00) entre EA e ESA dos alunos. Não houve diferenças significativas nos níveis de EA ou AEE entre os três programas acadêmicos (teste de Kruskal-Wallis, p > 0,05). A correlação positiva, de moderada a forte, também foi encontrada em cada programa analisado: contabilidade pública (rho = 0,45, p=0,002), administração (rho = 0,664, p = 0,000) e comércio exterior (rho = 0,480, p = 0,032). Conclusões: Foram encontradas evidências para apoiar a hipótese de que o ESA está positivamente relacionado com a EA dos alunos.

Palavras-chave: empreendedor, ensino superior, trabalhador independente.

Fecha Recepción: Enero 2022 **Fecha Aceptación:** Agosto 2022

Introduction

Entrepreneurship is a relevant issue in a globalized and knowledge-based world economy (Mei et al., 2020). Maksüdünov et al. (2020) point out that any activity in the area of entrepreneurship is essential for developed or developing countries, since it has a positive effect on their economic growth. For their part, Pepin et al. (2021) explain that entrepreneurship education is a relatively recent area; however, a recurrent interest in evaluating it through the entrepreneurial intentions (IE) of the students has already been established. Velasquez et al. (2018) highlight that the analysis of the EI is key in the process of explaining the creation of new companies. In addition, they

highlight that university students represent a group of high interest in EI research, since it is at this stage that people define their life projects.

For Huang et al. (2021), entrepreneurship can be interpreted as the process of creating a new company, which is an important element for sustainable development, since it increases the number of jobs and promotes economic growth. In their study, they found that EI is positively correlated with institutional policies and entrepreneurial practice. In this sense, Zelin et al. (2021) found that policies that support entrepreneurship play an important role in creating an enabling environment that promotes innovation and entrepreneurship. They stress that policies should include ways to encourage EI, as well as support for business start-ups.

Kabonga and Zvokuomba (2021) found that students' EI is driven by future career prospects, family background, poverty, curriculum, and the desire to satisfy consumption patterns. The authors also detected excessive bureaucracy in the process of supporting entrepreneurship and recommend that universities allocate funds to support students to create and grow their companies.

In the work of Dodescu et al. (2021) found that education is a key factor in promoting positive social attitudes towards entrepreneurship. Likewise, it is explained that education related to entrepreneurship can be formal or non-formal and include various methods such as case studies and learning by doing. Araya Pizarro (2021) carried out a bibliometric analysis of articles indexed in Web of Science and published between 2010 and 2020 that address entrepreneurial education and the intention to undertake of university students. He found that the predominant research approach was positivist using quantitative and cross-sectional survey-based techniques. Therefore, he recommends that research on these issues continue and that the determining factors of entrepreneurial education and its effectiveness be analyzed, especially the pedagogical aspects that influence the entrepreneurial attitude of university students.

Masri et al. (2021) found, through a correlation analysis, that there is a significant relationship between the effort put into entrepreneurship learning and EI. In their work, they also state that student participation in learning about entrepreneurship is essential to promote their motivation and build confidence to start a new company instead of looking for a job. This is how they define EI as the desire that a person has to start their own business at some point in their lives. Therefore, they deepen that for EI to be influenced by entrepreneurship education, it is necessary to have a comprehensive vision and the participation of students, teachers and institutions.

For their part, Mei et al. (2020) found that the level of commitment to entrepreneurship education is different between institutions and specialties. They also found higher levels of EI when there were higher levels of education in this field. Likewise, they discovered that the greater the

entrepreneurial education, the greater the self-efficacy for making decisions about entrepreneurship. In the same way, Handayati et al. (2020) point out that entrepreneurship education exerts a positive influence on the entrepreneurial mindset and intention.

Alves *et al*. (2019) mention that educational initiatives to support entrepreneurship usually include policies, processes or infrastructure with the aim of encouraging students to start new businesses. These initiatives have proven to contribute to the process of new ventures. Three categories of initiatives can be identified: educational, which seeks to awaken entrepreneurial concerns; stimulation, which tries to support students to start a new business, and incubation, which tries to promote young companies. For their part, Yunandar et al. (2019) explain that there is a significant relationship between the information that students received through the internet or in their class sessions with attitudes for entrepreneurship in the agricultural area. The authors emphasize that both are easily accessible means for students and that they should be promoted so that more companies can be created.

Ismail et al. (2018) investigated entrepreneurship education from two approaches: one focused on the teacher and the other on the student. They found that both approaches had favorable results. However, these were higher in the teacher-centered modality. Likewise, they found that the relationship between education and entrepreneurial intention is mediated by the skills learned. In this same sense, Ohanu and Ogbuanya (2018) advise motivating students to become entrepreneurs, which can be done in various ways. For example, including more entrepreneurship courses or assigning them tasks and activities that allow them to meet some established entrepreneurs in society.

Having explained the above, this article shows the results of a study conducted with the objective of determining if the educational support for entrepreneurship (AEE) —guiding, motivating, influencing and promoting entrepreneurship— is related to the entrepreneurial intention (IE) of The college students. For this, the following hypothesis was proposed:

H1: There is a positive correlation between ESA and EI.

The hypothesis was tested in two scenarios: with all participants and by academic program. A quantitative approach based on statistical analysis of the participants' responses to an electronic questionnaire was adopted. The document has the following organization: in the next section is the method followed, then the results are presented, then the discussion and finally the conclusions.

Methodology

Type of study

The study is quantitative, cross-sectional and correlational in scope.

Participants

There was the participation of 138 university students, of which 43 were public accountants, 75 belonged to the academic program of a degree in administration and 20 to the foreign trade program at a Mexican state public university. The sample was for convenience. The participants accepted an electronic invitation that they received through the Microsoft Teams platform, where their anonymity was guaranteed and they agreed to provide their responses for this study.

Instrument and its validity

The questionnaire shown in Table 1 was used, which had the validity indicators shown in Table 2, in addition to an HTMT value between both factors of 0.668. Seven-point Likert scales were used for responses, where 7 represented the highest score and 1 the lowest. The questionnaire was applied electronically through a survey designed in Google Forms. The hyperlink was shared through the Microsoft Teams platform.

Table 1. Questionnaire approaches

Concepto	Identificador	Planteamiento
Intención Emprendedora (IE)	IE1	Me interesa tener o crear mi propia empresa.
	IE2	Estoy dispuesto a ahorrar para invertir en mi empresa.
	IE3	Estoy dispuesto a dedicar el tiempo necesario a mi empresa.
	IE4	Me interesa conocer apoyos de financiamiento para crear mi empresa.
	IE5	Estoy dispuesto a aprovechar oportunidades para crear mi propia empresa.
	IE6	Me interesa laborar en una empresa donde yo pueda ser el fundador.
Apoyo Educativo para el Emprendimiento (AEE)	AEE1	Mi tutor académico me guía para generar una actitud emprendedora.
	AEE2	Mis profesores me motivan a desarrollar una actitud emprendedora.
	AEE3	Mis profesores me proporcionan herramientas para emprender un negocio.
	AEE4	Mis profesores me han influido para generar una actitud emprendedora.
	AEE5	Mis profesores orientan las materias para desarrollar actitudes emprendedoras.
	AEE6	Mis profesores reconocen mi actitud emprendedora.

Source: self made

Table 2. Reliability and validity of the instrument

	CR	AVE	MSV	MaxR(H)	IE	AEE
IE	0.983	0.907	0.457	0.989	0.952	
AEE	0.972	0.853	0.457	0.985	0.676***	0.924

*** $p < 0.001$
Source: self made

Analysis of data

The statistical program JASP version 0.15 (JASP, 2021) was used. The analysis was carried out in two phases: the first was exploratory and global, that is, it included all the data (n=138). Two aggregated or summed scales were made (Zikmund et al., 2013) for the scores obtained in EI and in AEE, and the descriptions of both were obtained. Each added value had a minimum value of 6 and a maximum of 42. Shapiro Wilk and Levene tests were performed on the added values, but it was not possible to determine normality ($p < 0.05$) or homogeneity of variances ($p < 0.05$). Therefore, Spearman's correlation between the aggregated values of EI and ESA was calculated. In the second phase of analysis, three groups were considered, one for each undergraduate academic program: public accounting (n = 43), administration (n = 75) and foreign trade (n = 20). Descriptive statistics were obtained and the Kruskal-Wallis test was performed to establish differences between the responses of the three academic programs. Likewise, the Spearman correlation test was repeated in each of them. In all cases, a confidence level of 95% was considered. The interpretation of the strength of the correlations was based on the criteria presented by Akoglu (2018). Finally, the results were observed and conclusions were made.

Results

Overall analysis

Table 3 presents the descriptive statistics for each of the factors studied considering the participation of all students (n = 138). For this characterization, the summed or added scales that were calculated were used; in this way, the lowest score in each factor could be 6, while the highest could be 42. The values show high values for entrepreneurial intention and slightly lower values for educational support for entrepreneurship.

Table 3. Characterization of the factors studied

Factor	Media	Desv. Std	Mediana	Rango intercuartil	Coeficiente de variación
Intención emprendedora (IE)	34.579	10.681	40.00	9.00	30.88 %
Apoyo Educativo para el Emprendimiento (AEE)	29.797	10.51	33.00	16.25	35.27 %

Source: self made

The correlation analysis between EI and AEE produced a Spearman's Rho value = 0.572, p = 0.00, which can be interpreted as a positive correlation, from moderate to strong. This means that the greater the educational support for entrepreneurship, the greater the entrepreneurial intention was observed.

Analysis by academic program

Table 4 presents the descriptive statistics for each of the factors studied with emphasis on each academic program. The observed correlations are interpreted as positive, from moderate to strong. In this way, it was found that the same relationship that had previously been found when analyzing all the data prevails for each academic program.

Table 4. Characterization of the factors studied and their correlation taking into account each academic program

Programa académico / factor	Media	Desv. Std	Mediana	Rango intercuartil	Coeficiente de variación
Contaduría pública (n=43, rho Spearman = 0.455**, p=0.002)					
Intención emprendedora (IE)	36.65	8.65	41	7	23.60 %
Apoyo educativo para el emprendimiento (AEE)	30.60	9.89	33	14	32.32 %
Administración (n =75, rho Spearman =0.664***, p=0.000)					
Intención emprendedora (IE)	34.50	10.53	40	9	30.52 %
Apoyo educativo para el emprendimiento (AEE)	29.90	10.15	33	17	33.94 %
Comercio exterior (n=20, rho Spearman=0.480*, p=0.032)					
Intención emprendedora (IE)	30.40	14.01	38.50	25.75	46.08 %
Apoyo educativo para el emprendimiento (AEE)	27.65	13.12	33	23	47.45 %

* p < .05, ** p < .01, *** p < .001

Source: self made

When performing the Kruskal-Wallis test on the EI and AEE scores, not enough evidence was found to establish differences in EI (statistical= 2.175, p=0.337) or in AEE (statistical=0.300, p=0.861) between the three Academic programs. This means that statistically similar levels of entrepreneurial intention and educational support for entrepreneurship were observed in the three academic programs analyzed.

Discussion

The findings indicate that there is a positive relationship, with moderate to strong intensity, between the ESA and the EI of university students. This was observed in all the scenarios analyzed; that is, with all the participants and also by segmenting them by the academic program to which they belong. In this sense, consistent results were obtained. This means that the greater the education, support, orientation and recognition promoted by the teachers, the greater the intention of starting a business and vice versa was observed in the students.

On the other hand, it should be noted that there were no differences in the levels of EI or AEE that were reported by the students between the three academic programs, which reaffirms the consistency of the results. This is important, since the study was conducted in a single educational

institution; therefore, the context of the three academic programs was the same. Some faculty members even teach subjects in two or more academic programs, so this homogeneity can be explained by this reason.

When comparing the results of this study with others existing in the analyzed literature, its concordance with the works of Huang et al. (2021), Dodescu et al., (2021), Mei et al. (2020) and Handayati et al. (2020) regarding the correlation found between IE and AEE. This is how our findings also highlight the importance of promoting entrepreneurship from the university environment; especially, of the educational actions that are carried out in this sense. Hence, it follows that teachers must be clear about this importance and consider it in their daily work to guide, influence, motivate and recognize entrepreneurial attitudes, as well as to provide entrepreneurial tools to their students.

On the other hand, it should be noted that the results differ from those of Mei et al. (2020), since no differences were found between the three specialties analyzed. In the case of the present investigation, we consider this as an indicator of homogeneity in the responses and consistency in the results.

In relation to entrepreneurship from the university space, we agree with Zelin et al. (2021) in which it is important to generate a favorable environment in the university that stimulates innovation and entrepreneurship. Likewise, we agree with Kabonga and Zvokuomba (2021) that it is important to reduce bureaucracy and support students with funds to create and grow their companies. Likewise with Masri et al., (2021), in which the participation of students, teachers and institutions with a shared comprehensive vision is required. In addition, we agree with Ohanu and Ogbuanya (2018) that students should be motivated from the university to become entrepreneurs so that, in this way, they contribute to the economic development of their regions. Likewise, we believe that support for entrepreneurship from the classroom must be continuous and carried out transversally, regardless of academic subjects or programs.

In interpreting the results, it is necessary to consider that a non-probabilistic sample from a single educational institution was used in this study. For this reason, it is proposed to use probabilistic sampling in future derivative works. On the other hand, despite the fact that this study is exploratory in nature, it provides guidance to continue investigating and delving into the issues of education and entrepreneurship.

Conclusions

Through its many facets, educational support for entrepreneurship is relevant in university spaces, as it is associated with the entrepreneurial intention of students. With the support and university education for entrepreneurship, it is possible to contribute significantly to the creation of new companies and thus collaborate with regional economic growth. University entrepreneurship requires a vision that contemplates the multiple dimensions from which action can be taken to support students. In this process, the effective collaboration of the Government, institutions, teachers and students is important. In other words, the efforts must be joint and articulated through continuous transversal actions of a curricular and extracurricular nature.

Future lines of research

As future work, a quantitative investigation is proposed that includes a statistical and representative sampling. It is recommended to analyze the cause and effect relationships between the variables studied in this research: educational support for entrepreneurship and entrepreneurial intention. In addition, the study of other factors that may be related to the intention of university students to start a business is pending; for example: family, cultural and socioeconomic background.

References

Akoglu, H. (2018). User's guide to correlation coefficients. Turkish Journal of Emergency Medicine, 18(3), 91-93. https://doi.org/10.1016/j.tjem.2018.08.001

Alves, A. C., Fischer, B., Schaeffer, P. R. and Queiroz, S. (2019). Determinants of student entrepreneurship. Innovation & Management Review, 16(2), 96–117. https://doi.org/10.1108/inmr-02-2018-0002

Araya Pizarro, S. C. (2021). Influencia de la educación emprendedora sobre la intención de emprender del alumnado universitario. Revista Educación, 45, 0–17. https://doi.org/10.15517/revedu.v45i1.43748

Dodescu, A. O., Botezat, E. A., Constăngioară, A. and Pop-Cohuţ, I. C. (2021). A partial least-square mediation analysis of the contribution of cross-campus entrepreneurship education to students' entrepreneurial intentions. Sustainability (Switzerland), 13(16). https://doi.org/10.3390/su13168697

Handayati, P., Wulandari, D., Soetjipto, B. E., Wibowo, A. and Narmaditya, B. S. (2020). Does entrepreneurship education promote vocational students' entrepreneurial mindset? Heliyon, 6(11), e05426. https://doi.org/10.1016/j.heliyon.2020.e05426

Huang, Y., An, L., Wang, J., Chen, Y., Wang, S. and Wang, P. (2021). The Role of Entrepreneurship Policy in College Students' Entrepreneurial Intention: The Intermediary Role of Entrepreneurial Practice and Entrepreneurial Spirit. Frontiers in Psychology, 12(March). https://doi.org/10.3389/fpsyg.2021.585698

Ismail, A. B. T., Sawang, S. and Zolin, R. (2018). Entrepreneurship education pedagogy: Teacher-Student centered paradox. Education+Training, 60(2), 168–184. https://doi.org/10.1108/ET-07-2017-0106

JASP. (2021). JASP. https://jasp-stats.org/

Kabonga, I. and Zvokuomba, K. (2021). Entrepreneurship among university students in Bindura, Zimbabwe. Cogent Social Sciences, 7(1). https://doi.org/10.1080/23311886.2021.2004674

Maksüdünov, A., Jamtshob, S. and İlimbekov, Ö. (2020). Perception towards Drivers of Entrepreneurship: A Cross-cultural Study on the University Students from Kyrgyzstan, Bhutan & Taiwan. Sosyoekonomi, 28(43), 135–151. https://doi.org/10.17233/sosyoekonomi.2020.01.08

Masri, N., Abdullah, A., Asimiran, S. and Zaremohzzabieh, Z. (2021). Relationship between engagement in learning entrepreneurship education and entrepreneurial intention among

vocational college students. Pertanika Journal of Social Sciences and Humanities, 29(S1), 19–38. https://doi.org/10.47836/pjssh.29.s1.02

Mei, H., Lee, C. H. and Xiang, Y. (2020). Entrepreneurship education and students' entrepreneurial intention in higher education. Education Sciences, 10(9), 1–18. https://doi.org/10.3390/educsci10090257

Ohanu, I. B. and Ogbuanya, T. C. (2018). Determinant factors of entrepreneurship intentions of electronic technology education students in Nigerian universities. Journal of Global Entrepreneurship Research, 8(1), 1–17. https://doi.org/10.1186/s40497-018-0127-1

Pepin, M., Audebrand, L. K., Tremblay, M. and Binta Keita, N. (2021). Evolving Student's Conceptions about Responsible Entrepreneurship: A Clasroom Experiment. Journal of Small Business and Enterprise Development, 28(4), 570–585. https://doi.org/10.1108/JSBED-02-2020-0035

Velásquez, J. A. T., Arias, A. V., Hernández, J. B., Díez-Echavarría, L. F., Marín, M. L. U. and Pérez, F. O. M. (2018). Characterization of entrepreneurial intention in university students as from Systemic Entrepreneurship Intention Model: A case study. Cuadernos de Gestion, 18(2), 95–114. https://doi.org/10.5295/cdg.160670jt

Yunandar, D. T., Hariadi, S. S. and Raya, A. B. (2019). Students' Attitude Towards Agricultural Entrepreneurship in Selected Vocational Colleges in Indonesia. Journal of Agricultural Extension Abstracted, 23(2), 147–153. https://doi.org/10.4314/jae.v23i2.15

Zelin, Z., Caihong, C., XianZhe, C. and Xiang, M. (2021). The Influence of Entrepreneurial Policy on Entrepreneurial Willingness of Students: The Mediating Effect of Entrepreneurship Education and the Regulating Effect of Entrepreneurship Capital. Frontiers in Psychology, 12(July), 1–10. https://doi.org/10.3389/fpsyg.2021.592545

Zikmund, W., Babin, B., Carr, J. and Mitch, G. (2013). Business Research Methods (9th ed.). Cengage Learning.

Rol de Contribución	Autor (es)
Conceptualización	Ramón Ventura Roque Hernández Mario Alberto Villarreal Álvarez (igual)
Metodología	Ramón Ventura Roque Hernández
Software	Ramón Ventura Roque Hernández
Validación	Ramón Ventura Roque Hernández Mario Alberto Villarreal Álvarez (igual)
Análisis Formal	Ramón Ventura Roque Hernández
Investigación	Mario Alberto Villarreal Álvarez
Recursos	Ramón Ventura Roque Hernández Mario Alberto Villarreal Álvarez (igual)
Curación de datos	Ramón Ventura Roque Hernández Mario Alberto Villarreal Álvarez (igual)
Escritura - Preparación del borrador original	Ramón Ventura Roque Hernández
Escritura - Revisión y edición	Ramón Ventura Roque Hernández
Visualización	Ramón Ventura Roque Hernández
Supervisión	Ramón Ventura Roque Hernández
Administración de Proyectos	Ramón Ventura Roque Hernández Mario Alberto Villarreal Álvarez (igual)
Adquisición de fondos	Ramón Ventura Roque Hernández Mario Alberto Villarreal Álvarez (igual)