



Article

Student Perception of Competencies and Skills for Social Entrepreneurship in Complex Environments: An Approach with Mexican University Students

Marco Cruz-Sandoval ^{1,*} , José Carlos Vázquez-Parra ¹ and Patricia Esther Alonso-Galicia ²

¹ Institute for the Future of Education, Tecnológico de Monterrey, Monterrey 64849, Mexico; jcvazquezp@tec.mx

² Institute for the Future of Education, School of Business, Tecnológico de Monterrey, Queretaro 76140, Mexico; pealonsog@tec.mx

* Correspondence: cruzsandovalmarco@tec.mx

Abstract: The aim of this article is to present the results of a diagnostic study carried out on a group of Mexican university students regarding their perceived achievement of social entrepreneurship competence and its subcompetences. By means of a multivariate descriptive statistical analysis, it was possible to evaluate the perception of this group on their level of perceived achievement considering the variable age. The results show a positive perception on the personal subcompetences and a low perception on the subcompetences of social innovation and business management. This article concludes with the need to promote projects and training programs that improve students' perception of the achievement of the economic and administrative subcompetences linked to the management processes of the social entrepreneurship competence. This will allow future social entrepreneurs to develop an optimistic view of their professional tools when it comes to materializing their projects.



Citation: Cruz-Sandoval, Marco, José Carlos Vázquez-Parra, and Patricia Esther Alonso-Galicia. 2022. Student Perception of Competencies and Skills for Social Entrepreneurship in Complex Environments: An Approach with Mexican University Students. *Social Sciences* 11: 314. <https://doi.org/10.3390/socsci11070314>

Academic Editor: Carlos Teixeira

Received: 4 June 2022

Accepted: 11 July 2022

Published: 19 July 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Keywords: professional education; educational innovation; future of education; social entrepreneurship; complex environments; higher education

1. Introduction

According to the United Nations Development Program (UNDP 2022), the new millennium not only requires us to face challenges unsolved in recent decades but also presents a complex reality that requires the participation of all social agents: Government, Business, and Civil Society. This approach means that each stakeholder needs to redefine the work they have been doing in the light of specific environmental problems since indifference and procrastination are no longer acceptable positions (Bega et al. 2021).

For universities, social responsibility is configured within a double helix of response because, on the one hand, organizations must face the demands of their environment and, on the other hand, their objectives as generators of knowledge, research, and training of new generations poses them the challenge of educating and providing skills and competencies for future decision makers (Vázquez Parra and Ortiz Meillon 2018). Thus, beyond being educational centers, universities are projected as environments for the acquisition, training, and development of competencies needed to address the reality of a complex world (Ali et al. 2021).

According to the international institution Ashoka, competencies such as entrepreneurship and social innovation are valuable skills needed to face global and local challenges, offering more viable, focused, and sustainable alternatives than philanthropy or altruism (Vázquez-Parra et al. 2021). Its Ashoka U program aims to guide universities in training new social entrepreneurs in the face of complex realities (Ashoka 2022). However, what knowledge, skills, and attitudes do students need to be social entrepreneurs? How prepared do students in regions with high rates of social problems, such as Latin America, feel when it comes to entrepreneurship?

This paper aims to present the results of a diagnostic study carried out on a group of Mexican university students who were questioned about their perceived achievement of the social entrepreneurship competence and its subcompetences. By means of a multivariate descriptive statistical analysis, we seek to identify the strengths and areas of opportunity perceived by the selected population. As a goal, we seek to identify students' overall perception of their entrepreneurial competences in a country such as Mexico, considering that this may be valuable when generating training programs in entrepreneurship or related public policies.

1.1. Universities as Promoters and Trainers of Social Entrepreneurship

Discussing entrepreneurship inevitably forces us to focus on people's attitudes toward planning, organizing, and proposing innovative projects (Gupta et al. 2020). Landström (2019) suggests there are multiple definitions of entrepreneurship; most come from the administrative sciences, focused primarily on the generation of companies. However, the social and intellectual evolution in entrepreneurship has given rise to a broader horizon, in which talking about entrepreneurship and innovation in education is a necessity due to the nature and formation of the entrepreneur (Kumar et al. 2021).

Thus, many educational institutions emphasize triggering entrepreneurial proposals oriented socially, consciously, and responsibly among their students (Hockerts 2018). In a complex, diverse world with increasingly demanding challenges, the process of entrepreneurship should no longer focus solely on developing good ideas with exclusively financial results but should also consider how innovation can respond to environmental problems. Studies such as those of Saebi et al. (2019) show the relevance of social entrepreneurs in developing their communities, especially in seeking inclusive growth and attention to local problems. Agustina et al. (2019) also highlight the role of social entrepreneurship in improving citizens' quality of life.

Therefore, the international organization Ashoka (2022), a specialist in social entrepreneurship, has worked with universities since the 1980s in the formative processes associated with social entrepreneurship, considering that educational institutions are crucial for the generation of new entrepreneurs and the scaling of their projects. Ashoka suggests that anyone can be an agent of change and have innovative ideas with social impact; however, they must have the tools and specialized support to turn their ideas into something tangible (Bublitz et al. 2020). Through its university support program, Ashoka U (2022), social entrepreneurship is fostered through the development of competencies in social entrepreneurs, looking beyond projects to people, and valuing that an agent of change can be revolutionary for their environment when they exercise their skills and capacity for action to solve social problems, regardless of their nature.

1.2. The Perception of Entrepreneurship in a Complex World

Based on the information above, it could be assumed that any institution committed to social entrepreneurship should be able to develop programs to promote and scale the performance level of this competency and its related skills; however, the reality is not so simple (García-González and Ramírez-Montoya 2021). One of the most significant challenges these institutions face is that not all have the training, economic, and human resources to trigger ideas for social entrepreneurship and start up new projects that allow them to meet specific objectives and goals. According to the Global Entrepreneurship Monitor report (Babson College 2022), countries' political, social, and economic situations can influence the desire for entrepreneurship, whether social or traditional, and the perception of entrepreneurs regarding their capabilities and possibilities for entrepreneurship.

According to this report, factors such as the possibility of financing, government support, accessibility to infrastructure, the nature of domestic markets, facilitative regulations, the entrepreneurial culture, and, of course, the support of related university programs are essential when it comes to entrepreneurship. These factors can differentiate between starting or not starting a business (Babson College 2022). According to the 2022 report,

the country with the best characteristics for entrepreneurship is the United Arab Emirates, followed by the Netherlands, Finland, and Lithuania. In the Latin American region, the best qualified is Colombia, followed by Uruguay.

Despite the Mexican government's and universities' intention to promote entrepreneurship, the country is ranked 33rd out of the 50 economies considered in the report. Although this seems a poor position, it is still above the average of other low-income economies ranked in the GEM (Quezada et al. 2020). The aspects negatively assessed in Mexico included its financing conditions, which showed much volatility during the pandemic years. Governmental bureaucracy also creates lag and the difficulty of paying taxes, a process that is just beginning to be digitalized. The physical, commercial, and professional infrastructure are among the best-evaluated points in Mexico, related to the digitalization and communication efforts that project a solid growth in recent years. Unfortunately, in terms of research and development transfer, the country has a lower performance than other Latin American countries, which corresponds to the deficiency in the exchange of knowledge necessary to undertake and train entrepreneurs and the palpable lack of specialized personnel in educational institutions (Babson College 2022).

However, although this data could provide a benchmark for the national entrepreneurship index and individuals' interest in entrepreneurship in the country, the reality of the environment does not always align with the perception of future entrepreneurs. Focusing on the university environment to promote and develop entrepreneurial skills, planners may see a different reality because even though some countries do not have formal entrepreneurship structures, the students can still desire to become entrepreneurs (Ndou 2021).

According to the Global Student Entrepreneurship 2021 report, conducted by the University of St. Gallen and the Swiss Institute for Small Business and Entrepreneurship (Sieger et al. 2021), although more than half of the students considered have not had a direct formative approach to entrepreneurship (formal university course), they do perceive themselves as having knowledge related to the generation of business ideas, which influences the perception of the entrepreneurial university environment. In this sense, specifically Mexico, despite not being well-positioned in the GEM, is considered the country with the best student perception toward entrepreneurship in the Latin American region, since 68% of the students surveyed see entrepreneurship as a career option, and more than 70% feel that they have the knowledge, skills, and experience to be entrepreneurs (Quezada et al. 2020).

The latter opens the need to explore what students consider necessary when it comes to entrepreneurship because, as can be seen, even if the environment is not the most suitable, this does not prevent young people from developing an entrepreneurial spirit, which for Cardella et al. (2021), includes the motivation and ability of a person to identify opportunities, fight for them, and carry out a change, with intuition, flexibility, and openness. Considering that the focus of this paper is on the perception of achievement, aspects such as intention, motivation, and interest in entrepreneurship (entrepreneurial spirit) are fundamental issues to be considered.

It is essential to point out that existing studies focus on data on entrepreneurship in general, with no analysis of a concrete vision of social entrepreneurship. Therefore, this article seeks to delve deeper into this matter, describing what could be seen as an ideal profile of the social entrepreneur to evaluate the university students' perception of the level of achievement of these competencies or skills.

1.3. Profile of the Social Entrepreneur

The social entrepreneur has been conceptualized as a person committed to an idea or initiative that addresses a social problem in their environment, seeking to make it sustainable over time (Jardim et al. 2022). This notion seems to focus on the commitment and social responsibility of the entrepreneur above all things; however, at the end of the day, social entrepreneurship must involve sustainable projects, which implies good management of human, economic, and even temporal resources (Alvarez de Mon et al. 2021). Although authors such as Shapovalov et al. (2019) raise the importance of the

entrepreneurs' social vision as a distinctive feature, they consider that one cannot lose sight of the need to have sufficient skills to identify, create, and develop opportunities, aspects that are shared with other, more traditional entrepreneurs. [Gandhi and Raina \(2018\)](#) point out that social entrepreneurs are characterized by their motivation to solve social problems, but that, regardless of this, they require having skills and knowledge about the economic reality that is necessary for any entrepreneurial proposal, such as motivation, effective communication, the search for financing, personal relationships, and even the ability to take risks in uncertain environments. In other words, although there are differences between traditional entrepreneurs and social entrepreneurs, their profiles share common characteristics.

In concrete terms, we can find research such as that of [Sáenz-Bilbao and López-Vélez \(2015\)](#), who, based on a study conducted in educational institutions with programs focused on social entrepreneurship, point out the importance of all entrepreneurs having personal characteristics such as the ability to set goals, innovate, be creative, and manage time. The social characteristics include leadership, teamwork, communication, and organization. Ethical characteristics are critical thinking, ethical sense, and awareness of others, while developmental characteristics include autonomy, perseverance, self-confidence, and responsibility. In this same sense, [Orhei et al. \(2015\)](#) propose a three-dimensional model based on competencies proposed by the European Commission for social entrepreneurship: cognitive, functional, and social. [Portuguez Castro et al. \(2018\)](#) add that social entrepreneurship competency should consider behaviors and attitudes, the passion for entrepreneurship, orientation to sustainability, and identifying opportunities. In the university context, [Velasco et al. \(2019\)](#) point out three components related to social entrepreneurship: instrumental, interpersonal, and systemic aspects.

Combining these different contributions, [González et al. \(2020\)](#) point out that the social entrepreneurship competency is comprised of five subcompetencies with 22 related indicators, which include personal aspects, leadership, social innovation, social value, and entrepreneurial management. Unlike the previous proposals, this current work focuses on features related to social entrepreneurship and considers personality traits that define the entrepreneur, adhering to the vision of agents of change proposed by [Ashoka \(2022\)](#).

Thus, it can be seen that the profile of the social entrepreneur, although sharing similarities with traditional entrepreneurs, also raises specific aspects that mark differences at the time of entrepreneurship ([García-González and Ramírez-Montoya 2019](#)). Valuing these differentiating elements is a determining factor for educational institutions that promote social entrepreneurship among their students, as this can improve or affect the level of success of their projects. Having clarity about this social entrepreneur profile allows for the focusing of efforts on the development of entrepreneurs and not as much on ventures, opening up greater possibilities for resilience ([García-González and Ramírez-Montoya 2021](#)).

Based on the above, it can be understood how, despite being in economies not ideal for entrepreneurship, students' high perception of their possibilities for entrepreneurship exists because educational institutions develop the profile of the social entrepreneur adequately; thus, future entrepreneurs can perceive themselves as qualified, regardless of where they undertake their ventures or the problems they address.

Therefore, based on this frame of reference, we present the results of a diagnostic study conducted among a group of Mexican university students who were questioned about their interest in social entrepreneurship and the skills they have to carry it out. The intention was to measure this sample group's perception of their level of mastery of the social entrepreneurship competency and relevant skills at the time of venturing. The objective was to identify their general perception of their interest and possibility of entrepreneurship in Mexico and what personal strengths they possessed, and the areas of opportunity they saw.

2. Materials and Methods

2.1. Participants and Procedure

The sample of 328 students in a private university in Mexico included 165 men and 163 women (Table 1). The selected university is a private urban technological educational institute located in the city of Guadalajara. Students from different semesters were considered, as well as from the disciplinary areas of engineering, business, health sciences, and humanities and social sciences. Considering the characteristics of the selected institution, most of the students are from a medium and medium-high socioeconomic profile.

Table 1. Data of participants by age and gender.

	Men		Women		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Age						
18–20	65	47	74	53	139	42
21–22	82	53	72	47	154	47
23–24	18	51	17	49	35	11

Source: Created by the authors.

The study was conducted between October and November 2021 with a convenience sample of students from various courses unrelated to entrepreneurship or social entrepreneurship. A self-administered questionnaire answered through Google Forms was applied, and the students answered it voluntarily.

2.2. Instrument

To measure the perception of achievement of the social entrepreneurship competency and its associated indicators, the instrument entitled *Profile of the Social Entrepreneur* (González et al. 2020) was used (Table 2), which uses a scale with 28 questions evaluated with a Likert scale: 1: strongly disagree, 2: disagree, 3: neither agree nor disagree, 4: agree, 5: strongly agree. This instrument considers 5 subcompetencies: *personal* (items 1, 2, 3, 4, 5, 6), *leadership* (items 7, 8, 9, 10), *social innovation* (items 11, 12, 13, 14, 15, 16, 17, 18), *social value* (items 19, 20, 21, 22, 23), and *entrepreneurial management* (items 24, 25, 26, 27, 28).

Table 2. Items of the instrument.

Item	Item Text
1	When I am passionate about something, I do what I can to achieve my goals.
2	I have the ability to identify the strengths and weaknesses of the people I work with.
3	When I am passionate about my work, I do my best to complete it even if I face adverse circumstances, lack of time, or distractions.
4	I consider myself skilled at communicating my ideas in front of a group of people.
5	I feel that people pick up on my ideas by sharing them with them.
6	It is common for me to convince others of my ideas and actions.
7	I am facilitated to delegate activities to my team members according to their profiles.
8	I have the ability to spread out daily activities over time to maximize results.
9	I am facilitated to collaborate actively in a team to achieve common goals.
10	I consider that all members of a team can make valuable contributions to the achievement of the objectives.
11	I am able to identify problems in the social or environmental environment in order to generate innovative solutions.
12	I like to search for reliable information on topics I have not yet mastered.

Table 2. *Cont.*

Item	Item Text
13	I believe that making mistakes offers us new learning opportunities.
14	I know strategies to create new ideas or projects.
15	I am tolerant of ambiguous situations or situations that generate uncertainty for me.
16	I show a commitment to participate in social aspects of my environment.
17	I know how to establish assessment criteria and measure the results of social impact.
18	I know strategies to develop a project, even with scarce resources.
19	I am interested in leading an initiative with favorable results for society and the environment.
20	My actions and behavior are guided by moral standards based on respect and care for people and the environment.
21	I am aware of the impact my actions have on society.
22	My actions are often characterized by an ecological awareness.
23	I am passionate about working in favor of social causes.
24	I have the accounting and financial knowledge for the development of a business.
25	I am familiar with marketing strategies.
26	I have knowledge of the logistics of running an organization.
27	I have the knowledge to manage the administration of an organization.
28	I have the ability to set a clear goal and the steps to achieve it.

Source: Created by the authors.

The questions asked focused primarily on measuring students' perceptions of their abilities. They did not delve into the particular characteristics of the projects they would like to carry out.

2.3. Analysis of Data

The data were analyzed using R ([R Core Team 2013](#)) and RStudio ([RStudio Team 2022](#)). As a first step, an exploratory analysis of the data was performed to observe and find patterns of students in the development of subcompetencies. The BoxPlot technique was used (also known as the box and whiskers diagram). This tool allows one to visually identify and compare groups of data by grouping the information by quartiles (or percentiles) and outliers to know the dispersion and symmetry in the distribution of students by subcompetencies ([McLeod 2019](#); [Williamson et al. 1989](#)).

Second, a Principal Component Analysis (PCA) was performed. This tool allows us to gain more insight into how students' observations differ by reducing the complexity of the raw data. We identified a set of independent and uncorrelated variables called principal components to avoid collinearity problems ([Cruz-Sandoval et al. 2020](#)). The values of the principal components of each observation (students) were calculated from the original variables. There could be as many principal components as variables analyzed (subcompetencies) ([O'Sullivan and Unwin 2002](#)). Likewise, PCA was complemented with the BiPlot graph ([Gabriel 1971](#)). This tool allows us to observe the distances between our observations (students) per the variables (subcompetencies), differentiate them by age ranges, and observe possible grouping behaviors. In our case, we used the BiPlot of form (i.e., $\alpha = 1$) to favor the visualization of our observations (students). Finally, the arithmetic mean and standard deviation were calculated for each item corresponding to each subcompetency and for each indicator used to measure the subcompetencies.

3. Results

The overall arithmetic mean was calculated for each item evaluating social entrepreneurship competency. The mean obtained was 3.81 with a deviation(s) of 0.51. Table 3 shows the means of each item by indicators and by type of subcompetency. As a complement, Figure 1 illustrates the results better. As can be seen, the students have a high level of development of the personal subcompetencies, especially in the *motivation* items of the indicator.

On the other hand, the results showed that students developed subcompetencies corresponding to *entrepreneurial management* to a lesser extent. This is observed in the indicator items for *value generation in social organizations* and *financing and administration*. Broadly, it could be said that the most-developed subcompetencies by students were *personal*, *leadership*, and *social value* (means of 4.12, 4.06, and 4.07, respectively). The perception regarding the least-developed subcompetencies corresponded to *social innovation* and *entrepreneurial management* (means of 3.64 and 3.22, respectively).

Table 3. Mean values and standard deviation of indicators by subcompetencies.

Ref.	SubComp.	Indicator	Item	Mean	SD
I1	Personal	Communication	4, 5	3.86	0.89
I2	Personal	Knowledge of the other	2	4.18	0.69
I3	Personal	Motivation	1	4.64	0.51
I4	Personal	Perseverance	3	4.36	0.72
I5	Personal	Persuasion	6	3.87	0.77
I6	Leadership	People management	7	3.82	0.95
I7	Leadership	Time management	8	3.73	0.99
I8	Leadership	Collaborative work	9, 10	4.36	0.76
I9	Social Innov.	Learning and adaptability	12, 13	4.34	0.78
I10	Social Innov.	Generation of creative ideas	14	3.41	0.99
I11	Social Innov.	Manag. limited resources and risk models	18	3.15	1.05
I12	Social Innov.	Identify opport. in the face of problems	11	3.62	0.89
I13	Social Innov.	Social involvement	16	3.7	1.02
I14	Social Innov.	Tolerance, uncertainty, and ambiguity	15	3.51	0.96
I15	Social Innov.	Assessment of ideas, results, and impacts	17	3.11	1.03
I16	Social Value	Code and ethical sense	20, 21	4.39	0.7
I17	Social Value	Empathy with the unmet needs of others	19	4.07	0.92
I18	Social Value	Sustainability orient. and ecol. comp.	22	3.72	0.87
I19	Social Value	Passion and entrepreneurial identity	23	3.78	0.99
I20	Entr. Manag.	Basis for value generation in social org.	24, 25, 26	3.01	1.17
I21	Entr. Manag.	Strategic development	28	4.03	0.81
I22	Entr. Manag.	Financing and administration	27	3.07	1.11

Source: Created by the authors.

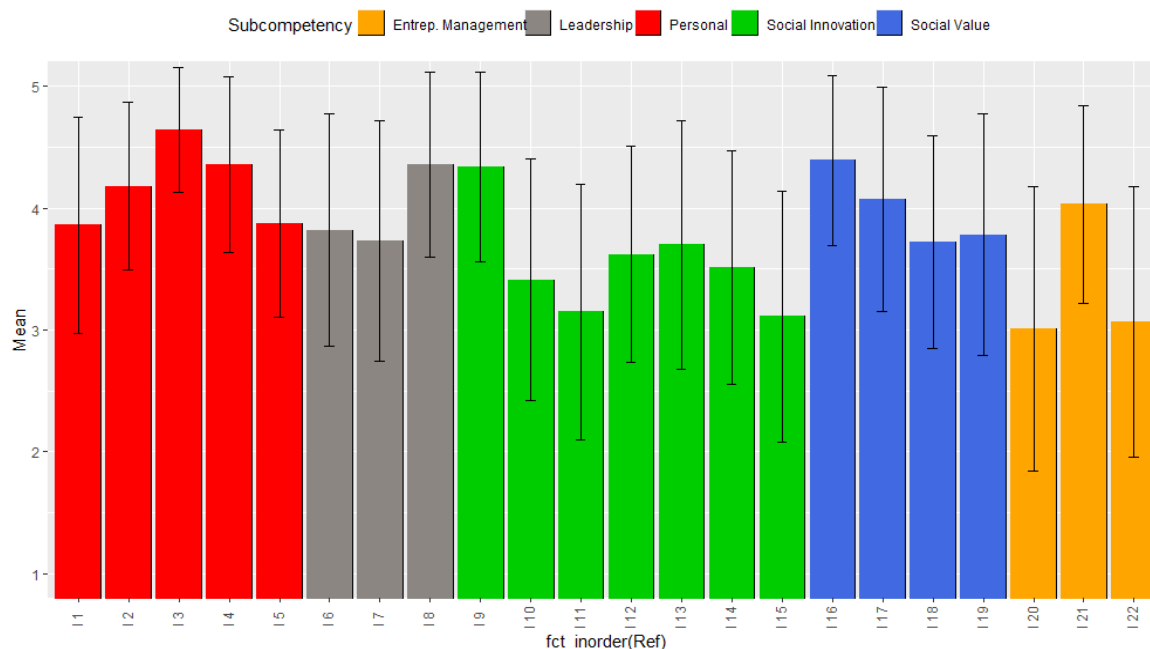


Figure 1. Bar chart. Arithmetic mean and standard deviation of indicators by subcompetencies. Source: Created by the authors.

On the other hand, the BoxPlot in Figure 2 shows the distribution of the mean values of the 328 students by type of subcompetency. This analysis showed that the students developed the subcompetencies corresponding to *leadership*, *personal*, and *social value* to a greater extent. Approximately 50% of the students acquired a mean value of 4.0 out of 5.0 in each subcompetency. On the other hand, students had the lowest average values for the subcompetencies of *entrepreneurial management* and *social innovation*, where the average value fell between 3.0 and 3.5 on the measurement scale.

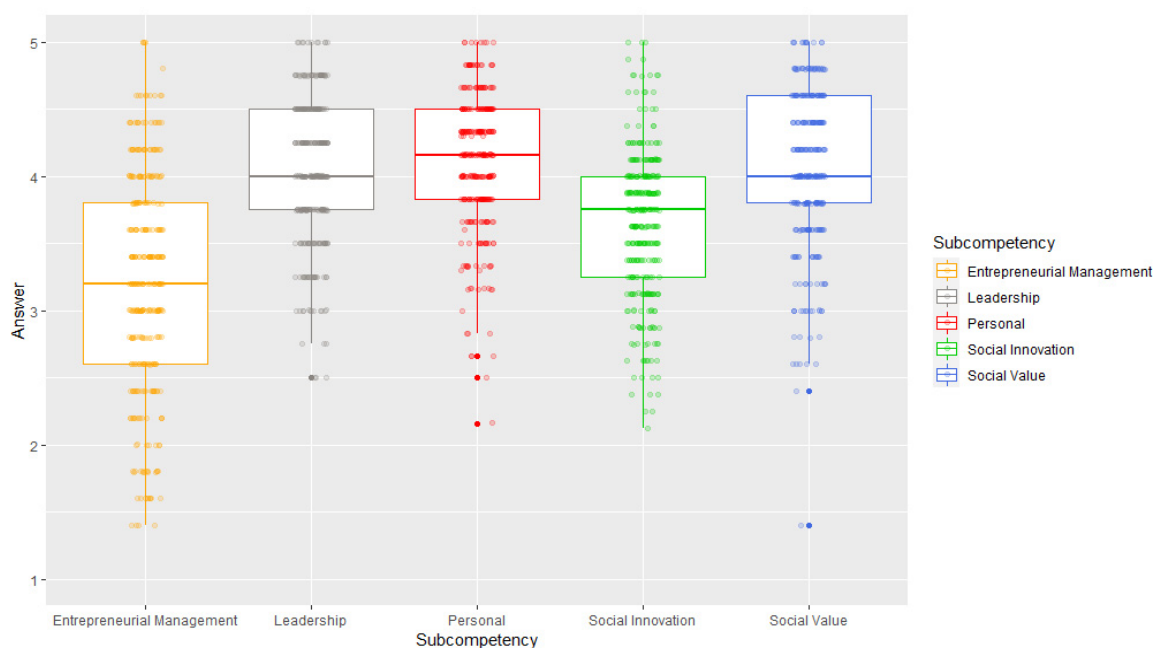


Figure 2. Boxplots of the distribution of mean values of students by type of subcompetency. Source: Created by the authors.

Part of the Principal Component Analysis performed on the social entrepreneurship competency revealed that PC1 and PC2 explain 52% and 16% of the data variability. These

two components together explain about 68% of the variability of the data (Table 4). In this sense, PC1 and PC2 describe their correlation with the subcompetencies. First, PC1 has a high correlation with the subcompetency of *social innovation*, indicating that this component explains the aspects of learning, adaptability, creativity, resource management, opportunity identification, involvement, tolerance, and valuing ideas. On the other hand, PC2 negatively correlates with the subcompetency of *entrepreneurial management*, indicating that this component mainly measures students' strategic development, value generation, and financing and management capacity.

Table 4. Principal Component Matrix: Social Entrepreneurship Competency.

	PC1	PC2	PC3	PC4	PC5
Entrepreneurial Management	0.40	−0.63	0.41	−0.38	0.32
Social Innovation	0.51	0.11	0.24	−0.06	−0.80
Leadership	0.43	0.23	−0.67	−0.52	0.15
Personal	0.45	−0.36	−0.38	0.71	0.05
Social Value	0.41	0.62	0.40	0.23	0.46
Standard Deviation	1.61	0.91	0.82	0.70	0.61
Proportion of Variance	0.52	0.16	0.13	0.10	0.07
Cumulative Proportion	0.52	0.68	0.82	0.93	1.00

Source: Created by the authors.

Although it is difficult to understand what happens to our data in Table 4, the BiPlot analysis allows us to understand the behavior of the transformed observations and the original variables (Figure 3). In the BiPlot, the angle between the variables (subcompetencies) gives an idea of their correlation. The smaller the angle, the higher the correlation. Conversely, the greater the angle between them, the lower the correlation. The subcompetency of *social innovation* and *leadership* is shown to be correlated, while *social value* and *entrepreneurial management* show a lower correlation.

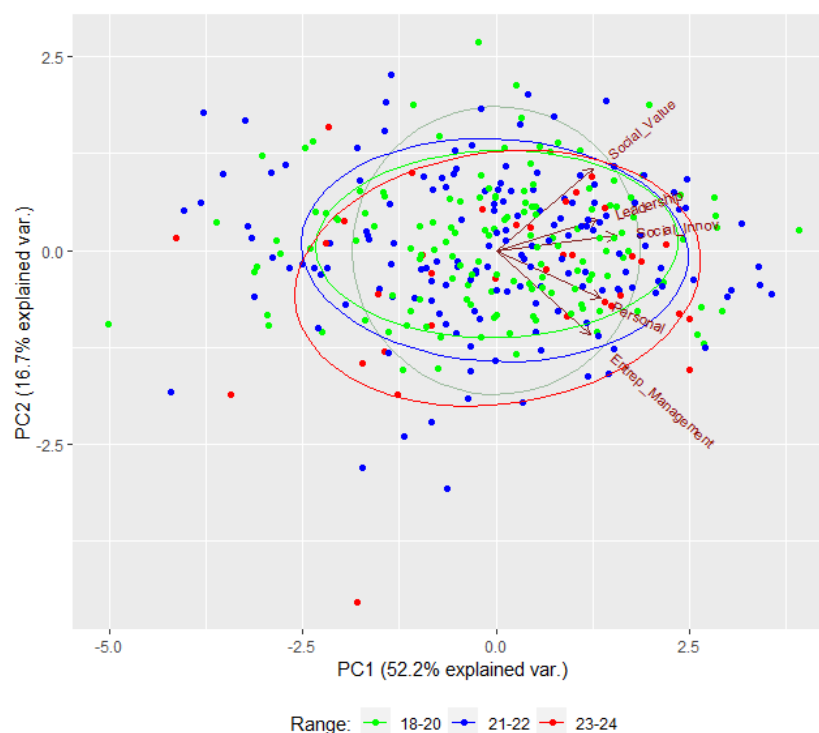


Figure 3. Principal Component BiPlot explaining 68% of the variability in our data. BiPlot of form ($\alpha = 1$). Source: Created by the authors.

For the present analysis, it is of interest to know the behavior of the observations per the subcompetencies. So, the students color-coded the age range to which they belonged. The students who were close to the origin showed average behavior. On the other hand, the students who were close to a subcompetency and in its direction indicated that they had developed that competency the most. On the contrary, students trending in the opposite direction to the subcompetencies and farther away indicated that they lacked development in these subcompetencies.

4. Discussion

The results presented make it possible to answer the questions posed in the introduction (What are the strengths or areas of opportunity perceived by students in terms of the development of the social entrepreneurship competence and its subcompetences?) Furthermore, we can see how the perception of achievement of certain subcompetencies and indicators can influence the general perception and capacity at the time of entrepreneurship.

First, the results show those competencies that are best perceived by the sample (Table 3), with the subcompetency related to personal values standing out. Indicators such as communication, knowledge of others, motivation, perseverance, and persuasion are undoubtedly fundamental elements of the social entrepreneur profile (Shapovalov et al. 2019), although they are not sufficient at the time of entrepreneurship. It is important to note that the indicators with the best means (Motivation, Perseverance, Collaborative Work, Learning and Adaptability, and Code and Ethical Sense) are values that relate to what is known as entrepreneurship, i.e., characteristics that drive the person and motivate him/her to solve a problem innovatively (Gandhi and Raina 2018). However, these indicators can be considered generic since, by themselves, they do not contribute concrete tools to materialize ideas, as could indicators such as financing and administration, value generation, the management of limited resources, or the valuation of results and impact, which were indicators that, notably, had the lowest averages. Thus, as a first conclusion, the results allow us to appreciate that the sample of students as a group perceived themselves with great entrepreneurial intentions. However, they also perceived themselves as having limited practical, administrative, and implementational knowledge. Supporting this, Figure 2 allows us to corroborate that the *personal*, *leadership*, and *social value* subcompetencies were those that more than 50% of the sample developed above the satisfactory level (4.0), in contrast to those of *social innovation* and *entrepreneurial management*, which on average still reflected an opportunity for development (3.0).

These data may explain the dissonance between the Global Student Entrepreneurship 2021 report (Sieger et al. 2021) and the GEM country results (Quezada et al. 2020), since, although Mexico is not one of the best places for entrepreneurship in terms of its financial or infrastructural characteristics, its students are strongly motivated. The latter can be understood by appreciating their high index of personal values and low index of competencies related to the economic and administrative reality of their environment. Table 4 shows the high correlation of social innovation and leadership subcompetencies to learning, adaptability, creativity, and tolerance indicators. It also shows the negative correlation between *social value* and *entrepreneurial management* subcompetencies in which strategic development, financing, and management capacity and value generation are found.

As a second aspect, Figure 3 (Principal Component BiPlot) allows us to delve more deeply into concrete situations perceived by the students about their development. The first thing to note is that the data reveal a contradictory result between the students' perception of achievement and their ages. It would be expected that students who are more advanced in their formative process would perceive higher achievement, as they consider themselves more capable of starting a social enterprise. However, 9.35% of the 18 to 20-year-old group members perceived themselves as lacking, compared to 14.28% in the 21-to-24-year-old group and 11.5% in the 23-to-24-year-old group. These results may be due to two factors. The first may be related to the low averages in the professionalizing indicators (strategic development, financing, and management capacity), which argues

why students who are close to graduation perceive themselves as less capable of facing the challenges of the environment beyond their desire and motivation for entrepreneurship. In the entrepreneurial process itself, entrepreneurship is promoted before implementation tools, which also seems to be reflected in the sample's age and stage of development.

On the other hand, specifically regarding the selected population, it is noteworthy that the selected institution is currently adopting a new competency-based educational model. At the time of data collection, students from the first to sixth semesters participated under this new model, while those in the seventh to ninth semesters were enrolled under the previous model. These results open the possibility to consider whether the new model influences the improvement of the students' perception of achievement, who conceive their education based on the development of competencies rather than on the acquisition of knowledge.

5. Conclusions

This article aimed to present the results of a diagnostic study carried out among a group of Mexican university students who were questioned about their interest in social entrepreneurship and the skills they perceive they have for it. The results showed a predisposition and tendency to promote and develop personal competencies, which allows us to understand the sample's high level of entrepreneurial spirit, and which can respond to similar results found in international reports. However, the data show the importance and the tendency of the sample's perception of certain subcompetencies and indicators at the time of entrepreneurship and how the students' perception may vary as their professional development progresses. Although, in the beginning, students may perceive that the most important thing is the desire and passion for entrepreneurship, as they progress, they discover that to put these ideas into practice, they must have economic and administrative skills that their professions often do not foster ideally.

This work has limitations, as it considers a sample of students from a single university and does not have a more balanced population by age range. In addition, there is the limitation of not having information related to social intervention processes that could influence the level of student perception, such as social service, which is part of the university education system in Mexico. This was not considered as part of the questionnaire, as the students are from different semesters and therefore, not all of them have carried out this requirement of the institution. However, we consider the results valuable because they show a process that can be easily replicated in other environments and produce accurate contextual results, whether it is conducted in a university or not. The fact that some of the students in the sample are studying under a different educational model can be questioned. However, as pointed out in the discussion of the results, these data are valuable due to this differentiation because they raise the need for additional studies that consider comparative samples between students graduating from both models. There are no graduates of the new model, which impeded this precision in the present article.

Finally, the practical implications of this article regard the need for universities and public policies aimed at promoting social entrepreneurship in countries such as Mexico to focus not only on the development of entrepreneurship and its associated indicators but also on the need to develop projects and training programs of an economic and administrative nature that provide entrepreneurs with practical tools. Only in this manner will good ideas give way to realistic and sustainable projects, thus improving the survival rate of these ventures.

Author Contributions: Conceptualization, M.C.-S., J.C.V.-P. and P.E.A.-G.; methodology, M.C.-S. and J.C.V.-P.; software, M.C.-S.; validation, M.C.-S. and J.C.V.-P.; formal analysis, M.C.-S. and J.C.V.-P.; investigation, J.C.V.-P. and P.E.A.-G.; resources, J.C.V.-P. and P.E.A.-G.; data curation, M.C.-S.; writing—original draft preparation, M.C.-S., J.C.V.-P. and P.E.A.-G.; writing—review and editing, M.C.-S., J.C.V.-P. and P.E.A.-G.; visualization, M.C.-S.; supervision, J.C.V.-P. and P.E.A.-G. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: This paper has been reviewed by WritingLab at the Institute for the Future of Education, Tecnológico de Monterrey, and has been approved for publication.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data available upon request.

Acknowledgments: The authors acknowledge the technical support of Writing Lab, Institute for the Future of Education, Tecnológico de Monterrey, Mexico, in the production of this work.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Agustina, Titien, Yanti Budiasih, Ariawan Esther Kembauw, and Sergey Alekseevich Gorovoy. 2019. Role of social entrepreneurship in business management. *Journal of Critical Reviews* 7: 257–62. [CrossRef]
- Ali, Muhammad, Ishamuddin Mustapha, Sharina Osman, and Umar Hassan. 2021. University social responsibility: A review of conceptual evolution and its thematic analysis. *Journal of Cleaner Production* 286: 124931. [CrossRef]
- Alvarez de Mon, Ignacio, Jorge Merladet, and Margarita Núñez-Canal. 2021. Social Entrepreneurs as Role Models for Innovative Professional Career Developments. *Sustainability* 13: 13044. [CrossRef]
- Ashoka. 2022. Emprendimiento Social. Available online: <https://www.ashoka.org/es-mx/focus/social-entrepreneurship> (accessed on 11 May 2022).
- Ashoka U. 2022. Leading Liberal Arts and Sciences University. Available online: <https://www.ashoka.edu.in/academic-programme/undergraduate/> (accessed on 16 May 2022).
- Babson College. 2022. *Global Entrepreneurship Monitor*. London: Global Entrepreneurship Research Association.
- Bega, Edoardo, Luca Mongelli, Francesco Rullani, and Silvia Rita Sedita. 2021. Social Entrepreneurship and Social Innovation between Global North and Global South: The Ashoka Case. In *Rethinking Clusters*. Edited by Silvia Rita Sedita and Silvia Blasi. Sustainable Development Goals Series; Cham: Springer, pp. 159–73. [CrossRef]
- Bublitz, Melissa G., Lan Nguyen Chaplin, Laura A. Peracchio, Ashley Deutsch Cermin, Mentor Dida, Jennifer Edson Escalas, Meike Eilert, Alexei Gloukhovtsev, and Elizabeth G. Miller. 2020. Rise Up: Understanding Youth Social Entrepreneurs and Their Ecosystems. *Journal of Public Policy & Marketing* 40: 206–25. [CrossRef]
- Cardella, Giuseppina Maria, Brizeida Raquel Hernández-Sánchez, Alcides Almeida Monteiro, and José Carlos Sánchez-García. 2021. Social Entrepreneurship Research: Intellectual Structures and Future Perspectives. *Sustainability* 13: 7532. [CrossRef]
- Cruz-Sandoval, Marco, Elisabet Roca, and María Isabel Ortego. 2020. Compositional data analysis approach in the measurement of social-spatial segregation: Towards a sustainable and inclusive city. *Sustainability* 12: 4293. [CrossRef]
- Gabriel, Karl Ruben. 1971. The Biplot Graphic Display of Matrices with Application to Principal Component Analysis. *Biometrika* 58: 453. [CrossRef]
- Gandhi, Tanvi, and Rishav Raina. 2018. Social entrepreneurship: The need, relevance, facets and constraints. *Journal of Global Entrepreneurship Research* 8: 1–13. [CrossRef]
- García-González, Abel, and María Soledad Ramírez-Montoya. 2019. Higher education for social entrepreneurship in the quadruple helix framework: Co-construction in open innovation. Paper presented at the Seventh International Conference on Technological Ecosystems for Enhancing Multiculturality, León, Spain, October 16–18; pp. 925–29. [CrossRef]
- García-González, Abel, and María Soledad Ramírez-Montoya. 2021. Social entrepreneurship education: Changemaker training at the university. *Higher Education, Skills and Work-Based Learning* 11: 1236–51. [CrossRef]
- González, Abel García, María Soledad Ramírez Montoya, Guadalupe De León, and Salma Aragón. 2020. El emprendimiento social como una competencia transversal: Construcción y validación de un instrumento de valoración en el contexto universitario. *REVESCO Revista de Estudios Cooperativos* 136: e71862. [CrossRef]
- Gupta, Parul, Sumedha Chauhan, Justin Paul, and Mahadeo P. Jaiswal. 2020. Social entrepreneurship research: A review and future research agenda. *Journal of Business Research* 113: 209–29. [CrossRef]
- Hockerts, Kai. 2018. The Effect of Experiential Social Entrepreneurship Education on Intention Formation in Students. *Journal of Social Entrepreneurship* 9: 234–56. [CrossRef]
- Jardim, Jacinto, Ana Bárto, and Andreia Pinho. 2022. Towards a Global Entrepreneurial Culture: A Systematic Review of the Effectiveness of Entrepreneurship Education Programs. *Education Sciences* 11: 398. [CrossRef]
- Kumar, Pranav, Worakamol Wisetsri, Mohsin Raza, and Roger Pedro Norabuena-Figueroa. 2021. Social entrepreneurship education: Insights from the Indian higher educational courses. *Academy of Strategic Management Journal* 20: 1–8.
- Landström, Hans. 2019. Chapter 3: The rigour-relevance debate: Strategies to avoid creating an ivory tower in entrepreneurship research. In *Rigour and Relevance in Entrepreneurship Research, Resources and Outcomes*. Edited by Eddy Laveren, Robert Blackburn, Ulla Hytti and Hans Landström. Cheltenham: Elgaronline, pp. 18–28. [CrossRef]
- McLeod, Saul. 2019. What Does a Boxplot Tell You? Available online: <https://www.simplypsychology.org/boxplots.html#:~:text=Indescriptivestatistics%2C> (accessed on 15 May 2022).

- Ndou, Valentina. 2021. Social Entrepreneurship Education: A Combination of Knowledge Exploitation and Exploration Processes. *Administrative Sciences* 11: 112. [CrossRef]
- O'Sullivan, David, and David Unwin. 2002. Reducing the number of variables: Principal Component Analysis. In *Geographic Information Analysis*. Edited by Alvin C. Rencher. Hoboken: Wiley, pp. 343–55.
- Orhei, Loredana Elisabeta, Sharda S. Nandram, and Joop Vinke. 2015. Social entrepreneurship competence: Evidence from founders of social enterprises in Romania. *International Journal of Entrepreneurship and Small Business* 25: 80. [CrossRef]
- Portuguez Castro, May, Jaime Ricardo Valenzuela Gonzalez, and Claudia Navarro Corona. 2018. Development and validation of the assessment test of social entrepreneurial potential. *REVESCO Revista de Estudios Cooperativos* 128: 192–211. [CrossRef]
- Quezada, José Ramiro, González Erika, Reyes Alejandro, Pérez Luis Felipe, and Toussaint Ana. 2020. *El Emprendimiento en el Estado de Guanajuato*. *Global Entrepreneurship Monitor 2019/2020*. Monterrey: Tecnológico de Monterrey.
- R Core Team. 2013. R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing. Available online: <http://www.r-project.org/> (accessed on 17 May 2022).
- RStudio Team. 2022. RStudio: Integrated Development for R (2022.2.2.485). RStudio, PBC. Available online: <http://www.rstudio.com/> (accessed on 17 May 2022).
- Saebi, Tina, Nicolai J. Foss, and Stefan Linder. 2019. Social entrepreneurship research: Past achievements and future promises. *Journal of Management* 45: 70–95. [CrossRef]
- Sáenz-Bilbao, Nerea, and Ana Luisa López-Vélez. 2015. Las competencias de emprendimiento social, coems: Aproximación a través de programas de formación universitaria en Iberoamerica. *REVESCO Revista de Estudios Cooperativos* 119: 159–82. [CrossRef]
- Shapovalov, Valery, Irina Igropulo, and Marianna Arutyunyan. 2019. Practices of defining the notion of social entrepreneurship. *International Journal of Innovative Technology and Exploring Engineering* 9: 3790–94. [CrossRef]
- Sieger, Philipp, Raemy Lea, Zellweger Thomas, Fueglistaller Urs, and Hatak Isabella. 2021. *GUESS: Global University Entrepreneurial Spirit Students' Survey*. St. Gallen and Bern: Sao Galo.
- UNDP. 2022. Sustainable Development Goals. United Nations Development Program. Available online: <https://www.undp.org/es/sustainable-development-goals> (accessed on 11 May 2022).
- Vázquez Parra, José Carlos, and Viviana Ortiz Meillón. 2018. Innovación educativa como elemento de la doble responsabilidad social de las universidades. *Revista de Investigación Educativa* 9: 133–44. [CrossRef]
- Vázquez-Parra, José Carlos, Juan Alberto Amézquita-Zamora, and María Soledad Ramírez-Montoya. 2021. Student Perception of Their Knowledge of Social Entrepreneurship: Gender-gap and Disciplinary Analysis of an Ashoka Changemaker Campus in Latin America. *Journal of Research in Higher Education* 14: 1224–41. [CrossRef]
- Velasco, Leticia Concepción, Estrada Ligia Isabel, Pabón Manuela, and Tójar Juan Carlos. 2019. Evaluar y promover las competencias para el emprendimiento social en las asignaturas universitarias. *REVESCO Revista de Estudios Cooperativos, Primer Cuatrimestre* 131: 199–223. [CrossRef]
- Williamson, David F., Robert A. Parker, and Juliette S. Kendrick. 1989. The Box Plot: A Simple Visual Method to Interpret Data. *Annals of Internal Medicine* 110: 916–21. [CrossRef] [PubMed]