



ORIGINAL

The capacity for technological innovation and level of entrepreneurship in the students of the National University of Cañete

La capacidad de innovación tecnológica y nivel de emprendimiento en los estudiantes de la Universidad Nacional de Cañete

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ABSTRACT

Introduction: motivation is fundamental in this research that was carried out in the province of Cañete, Lima-Peru, with the purpose of finalizing the capacity for technological innovation that influences the level of entrepreneurship of the students of the Faculty of Business Sciences of the professional school of administration and accounting, knowing their skills and experiences when having or carrying out business ideas and the active participation of students in an incubator.

Objective: this research seeks to analyze students in terms of their entrepreneurial skills and abilities in addition to identifying the role that teachers play in terms of encouraging and encouraging initiative behavior towards creativity and entrepreneurship.

Method: this research work is quasi-experimental; it is to determine how the capacity for technological innovation influences the level of entrepreneurship of students at the National University of Cañete. Manage the type of control and compare with the experimental one. We worked with a population of 200 students, of which the questionnaire was applied to a sample of 80 students with 20 Likert-type items, handling 3 important dimensions with the independent variable.

Results: there are 6 dimensions of which the high level of responses is managed (83,8 %), being effective, presenting a better result in the experimental than the control with (41,3 %). The limitations of the students focus on the level of entrepreneurship, the skills and attitudes of (88,8 %), entrepreneurial capacity of (87,5 %) and entrepreneurial experience of (81.3) in their levels of effectiveness.

Conclusions: in conclusion, this research carried out in the province of Cañete, Lima-Peru, has shown that the capacity for technological innovation has a significant impact on the level of entrepreneurship of the students of the faculty of business sciences of the professional school of administration and accounting from the National University of Cañete. The findings highlight the importance of integrating technological innovation and entrepreneurship in higher education to prepare students for the business world and foster entrepreneurship in the next generation of professionals.

Keywords: Motivation; Entrepreneurship; Business; Entrepreneur.

RESUMEN

Introducción: la motivación es fundamental en esta investigación que se realizó en la provincia de Cañete, Lima-Perú, con el propósito de finalizar la capacidad de innovación tecnológica que influye en el nivel de emprendimiento de los estudiantes de la facultad de ciencias empresariales de la escuela profesional de administración y contabilidad, conocer sus habilidades y experiencias al tener o realizar ideas de negocios y la participación activa de los estudiantes en una incubadora.

Objetivo: esta investigación busca analizar a los estudiantes en términos de sus competencias y capacidades emprendedoras además de identificar el papel que juegan los docentes en términos de exhortar y fomentar el comportamiento de iniciativa hacia la creatividad y el emprendimiento.

Método: este trabajo de investigación es de tipo cuasi experimental, es determinar cómo influye la capacidad de innovación tecnológica en el nivel de emprendimiento de los estudiantes de la Universidad Nacional de Cañete. Gestionar el tipo de control y comparar con el experimental. Se trabajó con una población de 200 estudiantes, de los cuales se aplicó el cuestionario a una muestra de 80 estudiantes con 20 ítems tipo Likert, manejando 3 dimensiones importantes con la variable independiente.

Resultados: son 6 dimensiones de las cuales se maneja el alto nivel de respuestas (83,8 %), siendo efectivas, presentando mejor resultado en el experimental que el control con (41,3 %). Las limitaciones de los estudiantes se centran en el nivel de emprendimiento, en las habilidades y actitudes del (88,8 %), capacidad emprendedora del (87,5 %) y experiencia emprendedora del (81,3) en sus niveles de efectividad.

Conclusiones: en conclusión, esta investigación realizada en la provincia de Cañete, Lima-Perú, ha demostrado que la capacidad de innovación tecnológica tiene un impacto significativo en el nivel de emprendimiento de los estudiantes de la facultad de ciencias empresariales de la escuela profesional de administración y contabilidad de la Universidad Nacional de Cañete. Los hallazgos destacan la importancia de integrar la innovación tecnológica y el emprendimiento en la educación superior para preparar a los estudiantes para el mundo empresarial y fomentar el espíritu emprendedor en la próxima generación de profesionales.

Palabras clave: Motivación; Emprendimiento; Negocios; Emprendedor.

INTRODUCTION

Entrepreneurial skills worldwide are a relevant factor for the training of suitable professionals. In the European Union (EU), the Erasmus program for young entrepreneurs was formed with the purpose of contributing and promoting entrepreneurship, as well as European affirms. Sánchez Tovar et al.⁽¹⁾ to train young people capable of creating, administering and managing new businesses, MYPES, through temporary relocation in a company established in another EU country. The program aims to improve knowledge and experience in contributing to entrepreneurship and strengthening links with other EU countries and, above all, to promote one's own culture.

Peru is one of the countries with the population with the greatest intention to undertake in Latin America and the world. Villavicencio et al.⁽²⁾, so Peru is in fourth position with 40 % of the population intending to start a business in the next 3 years. Worldwide, Peru ranks eighth. This study indicates the favorable perception that Peruvians have about their abilities to start a business and face the risks that this entails, so that 72 % of Peruvians feel prepared to be an entrepreneur. On the other hand, Peru is also characterized by a high rate of failures in ventures (7,6 %) and low levels of innovation (2,9 %), below the indicators of the region that are at 5,3 % and 24,7 % respectively.

In the district of Cañete, it has been undertaken little by little, but that they lack SMEs and those who exercise them mostly do not use strategies and business planning, for them young university students are the key source to be able to support or advise and likewise form their own businesses without the need to be unemployed.

Among the causes of deaths is subsistence, since businesses are created out of necessity and therefore there is no prior study or planning; another reason is the lack of differentiation since they saturate a market and, therefore, profits are minimal. The lack of financing and training of the entrepreneur are two other main reasons, as it has been appreciated in the capacity of technological innovation and the level of entrepreneurship of the students of the national university of Cañete, where most of the use of technology is not taken into account, this tends to be lower when you have tools for business management.

Universities, at present, have done little regarding the promotion of entrepreneurship, this evidenced in the lack of university entrepreneurship programs and a business incubator, 100 % of universities do not have it. Faced with this panorama, it is necessary to have as a priority to promote economic development based on knowledge, on learning the entrepreneurial level as part of the culture in universities, so that their students can detect opportunities in the region. In this context, the National University of Cañete must be concerned with promoting education at all levels and sectors and technological development. It is very important that the University of Cañete takes into account the issue of technological innovation capacity and tries to instill it in the mind of the student so that he can develop skills, competencies that can perform positively in all types of activity, given that at the moment there are very few strategies to potentiate these competences.

Therefore, it was raised as a General Problem: How does the capacity for technological innovation influence the level of entrepreneurship of the students of the national university of Cañete, 2021?, and the specific problems: 1) How does the capacity for technological innovation influence the skills and attitudes of

entrepreneurship of the students of the national university of Cañete, 2021?, 2) How does the technological innovation capacity influence the entrepreneurial capacity of the students of the national university of Cañete, 2021?, and 3) How does the technological innovation capacity influence the entrepreneurial experience of the students of the national university of Cañete, 2021?.

In addition, it was planted as a General Objective: To demonstrate how the capacity for technological innovation influences the level of entrepreneurship of the students of the national university of Cañete, 2021., and the Specific Objectives: 1) To determine how the capacity for technological innovation influences the skills and attitudes of entrepreneurship of the students of the national university of Cañete, 2021., 2) Determine how the capacity for technological innovation influences the entrepreneurial capacity of students of the national university of Cañete, 2021., and 3) Analyze how the capacity for technological innovation influences the entrepreneurial experience of students of the national university of Cañete, 2021.

Finally, it was proposed as a General Hypothesis: The capacity for technological innovation influences the level of entrepreneurship of the students of the national university of Cañete, 2021, and the Specific Hypotheses: 1) The capacity for technological innovation influences the skills and attitudes of entrepreneurship of the students of the national university of Cañete, 2021, 2) The capacity for technological innovation influences the entrepreneurial capacity of the students of the university national of Cañete, 2021, and 3) The capacity for technological innovation influences the entrepreneurial experience of the students of the national university of Cañete, 2021.

One of the current challenges faced by public universities is the growing accreditation requirements according to research standards and contribution in teamwork, and therefore requires entrepreneurship-driven teaching from university classrooms, since many times the social demand is tilting in private universities with better measures. For this reason, public universities are no strangers to the trend of technological innovation and entrepreneurship that starts from the human talent of the university. Many countries seek to contribute to social development and insert and promote a power of human talent, to face and be part of the entrepreneurial capacity, results that will highlight employment against paradigms of competitiveness faced by current and main economies in Latin America of the country.

The research, which deals with how it will influence between the Capacity for Technological Innovation and the Level of entrepreneurship of the students at the National University of Cañete. It seeks to determine the relationship of innovations both technological entrepreneurship and its dimensions with their performance of the students of the University, so it must be compared to present sustainable alternatives of entrepreneurship, as an option to generate employment in the future, in addition the results allows to guide the students of the national university of Cañete, with innovations about human talent that have organizational innovations, product innovation and achieving university entrepreneurship skills, promoting an orientation of technological innovation.

Background

Oseda Gago *et al.*⁽³⁾ in their Journal they studied the framework of the multiple and complex political, economic, social and cultural transformations posed by the current university system, that is why the need arose to develop accurate diagnoses of the innovative potential needed by public universities in the country, to be at the forefront of private universities in the context of the demands of the National Superintendence of Higher University Education (SUNEDU) and the System National Evaluation Accreditation and Certification of Educational Quality (SINEACE). This research aimed to determine the degree of relationship that exists between the potential for innovation and institutional management in the managerial, teaching, and administrative staff of the National University of Cañete. From which they opted for the applied type, correlational level, we worked with a cross-sectional correlational design; Therefore, they took into account that the population was made up of 154 subjects between directors, teachers and administrators, and the sample was probabilistic and stratified conformed by 92 subjects. The level of innovation potential that the university has is 75 %, being qualitatively good, and in institutional management 73 %, this being very good, in the perception of the subjects evaluated. It was concluded based on the three dimensions and with a significance level of 5 %, that there is a direct and highly significant correlation ($\rho = 0,902$ and $p\text{-value}: 0,000 < 0,010$) between the innovation potential and institutional management in the managerial, teaching and administrative staff of the National University of Cañete. It is important to keep in mind that innovation is enhancing entrepreneurial capabilities within an institution. I can affirm that this journal contributes a lot to my thesis report since it seeks the improvement of the university, either in the accreditations of the careers of each specialty, likewise seeks to contribute to the inculcation of entrepreneurship and improvement in education and thus the university joins to be one of the best in the country.

Alvarez Angulo⁽⁴⁾ in his thesis to obtain the Master's degree he aimed to determine the relationship between process management and entrepreneurship; and arises as a response to the problems of the Educational Institution described. The research obeys a quantitative approach, basic type and non-experimental design,

correlational cross-section, having used questionnaires with a Likert scale as data collection instruments that were applied to a sample of 101 students of the Public Educational Institution "Dionisio Manco Campos" of Mala. In the present research, the following conclusion was reached: it was determined that process management is positively moderately related to entrepreneurship in high school students of the Public Educational Institution "Dionisio Manco Campos" of Mala, 2017; having obtained a Spearman correlation coefficient equal to 0,533 and a significance level equal to 0,000. This thesis contributes to the research that entrepreneurship is the result of the teachings of the classrooms from the formation of their academic life, which show that students are more ingenious in their academic processes and make their talents known, it is when there the universities have to act to promote their talent and it is pleasant for many young people.

Hincho Sallo et al.⁽⁵⁾ in their thesis to obtain the Professional title of Bachelor of Administration and International Business they studied the theories about entrepreneurship including definitions and criteria for the entrepreneurial phenomenon of the graduates of the Professional Careers of the National Amazonian University of Madre de Dios. The objective of the research was to compare the business entrepreneurship of graduates of the Professional Careers of the National Amazonian University of Madre de Dios 2014-2017. Likewise, the university contributes to the development of entrepreneurship in graduates through the creation of human potential through teaching, research and its application; for the training of entrepreneurial professionals that enable the creation of companies. Since the origin of companies are an economic impact, which is generated when good market research is carried out in order to have ideas and knowledge of the needs of the market. Therefore, universities support this economic impact by strengthening the entrepreneurial capacity of students through training and academic programs. This research corresponds to the descriptive type, the non-experimental cross-sectional design, for data collection a questionnaire of a mixed nature on Business Entrepreneurship was elaborated and validated, the population to be studied was constituted by 740 graduates between the period from 2014 to 2017 the sample was obtained through simple and stratified probability sampling, making a total of 189 graduates. The test statistic used was one-factor ANOVA, and the Tukey test, at a significance level of 0,05, demonstrated the existence of a difference in Business Entrepreneurship in graduates of UNAMAD Professional Careers, $F = 4,786$; $p < 0,05$, it was found with Tukey's test that the third group composed of the Professional Careers Administration and International Business, Forest Engineering and Environment, Ecotourism, Accounting and Finance, Veterinary Medicine and Agroindustrial Engineering are statistically equal ($p = 0,089$). In this research they introduced us to factors that facilitate innovation, as well as feel committed in their environment and how an entrepreneur develops. Regarding this research according to the author gives us to know benefits for graduates and likewise instill us to be part of many projects throughout our lives. In this thesis contributes much to the research of thesis where it seeks the contribution of the development of the entrepreneurship of the graduated students through the creation of human potential through teaching, research and its application; for the training of entrepreneurial professionals that enable the creation of companies. Knowing the origin of companies are an economic impact, which is generated when good market research is carried out in order to have ideas and knowledge of the needs of the market. Of which the impact of strengthening and the entrepreneurial capacity of students through training and academic programs is sought for the university.

Chambe Quispe⁽⁶⁾ in his thesis to obtain the professional title of Commercial Engineer had as a central objective to determine if there is a relationship between the attitude towards entrepreneurship and the generic competences of the students of the Faculty of Legal and Business Sciences of the UNJBG, Tacna, in 2017. The type of research is basic, relational, non-experimental and transitional design. The sample consisted of 292 university students belonging to the Faculty of Legal and Business Sciences of the Jorge Basadre Grohmann National University, to whom the generic skills questionnaire and the attitude towards entrepreneurship questionnaire were applied. Both instruments were submitted to expert judgment and regarding their reliability, both obtained a Cronbach's alpha coefficient higher than 0,9. The results showed that of the total respondents, 68,8 % have regular generic skills and 47,3 % have a positive attitude towards entrepreneurship. To determine the relationship between generic competencies and attitude towards entrepreneurship, the Chi-square statistical test and Spearman's Rho Test were applied. It was concluded that there is a relationship between the variables, however, it presents a low or weak degree of relationship. This thesis contributes to practical training based on the use of cases, workshops of plans and constitution of companies, development of prototypes as a result of courses and practices in start-ups. Have a follow-up and control over the graduates, in order to know what is the area of performance of these when they graduate from the university classrooms, how many undertook their own companies, how many work as dependents of the public and private sector and what is the unemployment gap found by those who did not undertake or manage to reach a dependent job position, to be able to sustain the need to promote entrepreneurship rather than subordinate employment.

Escobedo et al.⁽⁷⁾ in his thesis to obtain the academic degree of Doctor in Administration he investigated that entrepreneurship and entrepreneurial intention in public universities has received great attention in the academic community. He formulated the research objective: to determine the level of entrepreneurship and

entrepreneurial intention activities developed by students of public universities in the southern macro region of Peru. It was a basic type of research, quantitative approach, non-experimental, cross-sectional descriptive and correlational type; survey techniques and documentary analysis; population 2508 and sample of 295 students. According to the results in entrepreneurship activities, a level of regular to high highlights the National University of San Agustín and National University of the Altiplano; in perceived desirability a level of moderate interest to full interest and in perceived viability from moderate self-confidence to full self-confidence. The Chi-square calculated for each indicator is both significant; however, the perceived desirability presents a Cramer's V of 0,886 higher than that calculated for the Perceived Viability; He concluded that perceived desirability is most strongly related to entrepreneurial intent. I can say that in this thesis contributes in the thesis that public universities should gradually include the curricular transversality of university entrepreneurship, and extra-curricular activities such as business ideas competition, innovation prototypes, business fairs and advisory and consulting centers companies in the faculties and national events of emerging entrepreneurship

Rolon Florez⁽⁸⁾ in his thesis to obtain the title of master in management T1 developed the instruments of information collection where they were applied to children from 11 to 13 years of the Julio Pérez Ferrero Cúcuta school to create a plan of innovation and entrepreneurship in STEM areas to increase the participation especially of girls to the Punto Vive Digital Lab Cúcuta. Thus, the question was started: How can the participation of girls from schools of the Julio Pérez Ferrero School in Cúcuta be increased in the PVDLAB point based on the analysis of factors that influence the empowerment of STEM areas to create an innovation and entrepreneurship plan? Improvement strategies were developed and proposed to promote training in STEM, women's digital empowerment, innovation and entrepreneurship, under a quantitative methodological process of descriptive and applied scope. In this thesis we complete something important for research that entrepreneurship should instill from childhood, and of which in the university is molding at the pace that require to promote for their professional life as well for society. Where specific areas are created for the improvement of some systems such as the creation of a business according to databases that result in the future.

Tejedor Miralles⁽⁹⁾ in his theses he investigated the appearance of "Information and Communication Technologies" is being important in the growth of countries, which has generated a necessary transformation of many workers to adapt to the new needs of these technologies, being necessary to have higher training levels. The University has become a fundamental element for the European Union in its objective of becoming the most competitive and dynamic knowledge-based society in the world (European Council, 2000), since it is at the crossroads of Scientific Research, Education and Training, as well as Technological Innovation (European Council, 2004). With these premises, we worked on the research, specifically analyzing the impact that curricular and extracurricular university training on educational competence, initiative and entrepreneurial spirit can generate on the student, in order to generate entrepreneurial behavior or behavior. They were based on the model of the Theory of Planned Behavior, this model allowed a relationship in the competence initiative and entrepreneurial spirit, considered as an exogenous factor, on the attitudinal antecedents (entrepreneurial attitude, subjective norms and perceived control of behavior), variables that directly affect entrepreneurial intention. Fieldwork has been carried out at the University of Valencia, Polytechnic University of Valencia and Catholic University of Valencia, where a sample of 575 students from all courses, as well as different degrees, has been collected. The statistical work has been developed through a structural equation model solved with the IBM SPSS module, AMOS 16,0. It was concluded that the University mainly through curricular training in the competence initiative and entrepreneurial spirit specifically in knowledge and with the support of the extracurricular, favors in the students the development of a favorable perception towards the implementation of an entrepreneurial project, as well as a greater belief of their ability to develop it. The closest environment of the students is an important factor in our results, through its positive influence so that the student feels motivated to undertake. According to his thesis contributes to the research that the University through curricular training in the competence initiative and entrepreneurial spirit specifically in knowledge and with the support of the extracurricular, favors in students the development of a favorable perception towards the implementation of an entrepreneurial project, as well as a greater belief of their ability to develop it. Where the student must be motivated from his academic training, to generate good results.

Iza Salazar⁽¹⁰⁾ in his thesis for obtaining the title of Business Engineer determined that this research aims to "analyze the university entrepreneurial ecosystem in Ecuador. He also researched the Universities and Polytechnic Schools category "A", and based his research on the centers or units of support for entrepreneurs within each university, analyzing the resources they have and the management provided to entrepreneurs with respect to training, linkage, incubation and financing. The results obtained from this research allowed to know the feasibility of undertaking in the university stage and the role played by the university to promote entrepreneurship projects of its students, as well as to identify the resources required by an efficient entrepreneurship ecosystem, in relation to those currently offered. The integrating factors of the entrepreneurial ecosystem and the hierarchy of the specialists in charge of the different University Entrepreneurship Support Units were taken into account in order to provide a technical overview to those committed students. We sought

to understand the articulation of the different actors of entrepreneurship in an effort to assimilate if this could start a positive change in the productive matrix. The results of their thesis are feasible, and this contributes to the thesis that university entrepreneurship is the result of training, incubation and financing of projects that allow them to express their knowledge and talents in innovation or creation of a new product. That is why it is necessary to promote student entrepreneurship projects.

Arellano Hernández⁽¹¹⁾ in his magazine he investigated "the issue of the capacity for technological innovation at the Autonomous University of the State of Mexico as a methodological and theoretical exercise that can be extended to the conditions of other Mexican universities. The problems that are at the origin of this work and that feed the reflection and the search for empirical elements are the following: what is the characteristic of the legal framework of the UAEM in relation to research and technological innovation?, what is the research trend of the UAEM and what is the specific weight of technological research?, What is the experience of the UAEM in the University-Productive Sector link to facilitate the congruence between demands and offers of new knowledge and technologies? All these questions can be summarized in one, namely: What is the capacity for the UAEM to offer society technological innovations? It contributes in the research that the implementation of innovation is important so that students do not have problems at the origin of a job in the process of forming companies or in their labor demand, and from which good results are obtained with technology, therefore, let's not leave aside the incubation and talents of the students, that are mirrors of the university demonstrating that the achievements are obtained thanks to the results of training, training from their academic training.

Sánchez Tovar et al.⁽¹⁾ in his article he aimed to build a regional typology of innovation capacity in its relationship with entrepreneurial behavior in Mexico. For this, principal components factor analysis methodology was applied in order to verify the dimensions in which the regions are integrated and a cluster analysis for the classification of the regions. From the above, 5 regional groupings were obtained in relation to innovative behavior: non-metropolitan region, small industrial regions, medium/high technology industrial region, metropolitan region with diversified structure and advanced industrial agglomeration. With the results, it was concluded that the regions with the greatest capacity for innovation are those that register the greatest entrepreneurial promotion. In this article we contribute what relationship entrepreneurship has and the capacity for innovation, providing that group work is to achieve capabilities, knowledge that entails the improvement of innovation or entrepreneurship that you want to achieve. That is why we take into account that the academic training of the students are carried out in groups so as not to have difficulties in the process of some training of undertaking and are good results according to the opinions of the experts, many achievements require the opinion of another person for the respective improvement.

Gómez Zuluaga⁽¹²⁾ in his article he investigated the results of the research carried out within the framework of the University Network of Entrepreneurship REUNE, attached to the Colombian Association of Universities ASCUN, in which the Pontifical Bolivarian University, the University of Medellín, the University of Antioquia, the Santo Tomás University and the Francisco de Paula Santander University participated. The research process was exploratory, transversal and field, which sought to identify whether Colombian Higher Education institutions develop specific practices for the generation and accompaniment of technology-based ventures. One of the most striking results is that there are conceptual gaps and different understandings regarding what is meant by entrepreneurship and technology-based companies among the HEIs surveyed. The relevance of the results obtained in the research is linked to the growing interest of the country towards the issue of entrepreneurship based on specialized knowledge, which is strengthened by the recent approval of the Spin-Off Law, which seeks to define guidelines and standards that allow public and private universities to create technology-based companies (spin-off), undertaken by its researchers and that they obtain incentives for the application of their research results. This article impact me regarding your research since it will contribute to the strengthening of universities have good guidelines and standards that allow creating companies based on technologies, and much better that they are undertaken by the students graduated from said house of studies. Where this is an impact of improvement for the university and for young professionals of tomorrow.

Theoretical bases

Independent variable

X: Capacity for Technological Innovation

Porter⁽¹³⁾ He speaks of capacity not as a possibility of doing, but as an increase in activities, products, and productivity. Idea that refers to the metaphor of the container. In technological innovation, complementarities are often presented, since many inventions needed others to generate technological evolution. Technological capabilities, in accordance with the above, are those that correspond to a certain practice linked to the creation, innovation, adoption, use and dissemination of technology, among others.

Dimensions

X₁: Technological learning R+D

Galicia⁽¹⁴⁾ it places the technological learning process at the center of technology management in general, being surrounded by a cycle of targeting, training, implementation, and surveillance activities, without depending directly on any of them, but affecting and enhancing them all.

Indicators

- Learning Application.
- Cognitive operations
- Access to technology
- Appropriation of technology.

X₂: Product Innovation

The Oslo Manual OECD⁽¹⁵⁾ states that product innovations involve significant changes in the characteristics of goods or services. They include entirely new goods and services and significant improvements to existing products.

Indicators

- Product planning horizon.
- Ideas for improvement.
- Ideas for new products.

X₃: Organizational Innovation

Organizational innovation is defined in various ways, it is a process of generation, development, and implementation of new ideas; is the development and implementation of new processes, new products or new management approaches to increase the efficiency and affectivity of the company OECD ⁽¹⁶⁾

Indicators

- Improvement of working methods and techniques.
- Process of incorporation of modern technology.
- Change of organizational structure.
- Change of job functions.

Dependent variable

And: Level of Entrepreneurship

Kihlstrom et al.⁽¹⁷⁾ on entrepreneurship studies, which state that an individual can choose between being an employee or starting a business through a rational choice based on a utility function, where its objective is to maximize the expected utility. In this sense, individuals can be distinguished by their attitude to risk using the absolute measurement coefficient of risk-aversion. This implies that behind every company there is an entrepreneur who is risk-averse and who maximizes his expected utility to decide between receiving a secure salary as an employee or starting a business with profits subject to a level of uncertainty.

AND₁: Skills and Attitudes of Entrepreneurship

Gavilanes Trapote et al.⁽¹⁸⁾ comment that there are two necessary skills, which must have at the beginning people who wish to carry out an enterprise; As a first measure, mention is made of entrepreneurial ability, which is defined as the ability of an individual to identify and take advantage of opportunities that allow him to start a business, regardless of the resources he has under his control. And secondly, we find the ability to diagnose, which is defined as the ability to rigorously study and understand the set of causes and consequences, in the short, medium and long term, of the social problems that afflict the environment.

Indicators

- Communication skills.
- He is creative innovator.
- Teamwork.

Y2: Entrepreneurial capacity

Marulanda Valencia et al.⁽¹⁹⁾ they define entrepreneurial capacity as the ability, dexterity, and knowledge that a person has to take risks and take advantage of the business opportunities of the environment in which he develops. Nuñez de Sarmiento et al.⁽²⁰⁾ emphasize its relationship with entrepreneurship since it focuses on business creation. It includes creativity and orientation to innovation through the planning, organization and management of projects focused on the objectives to be achieved.⁽²¹⁾

Indicators

- Self-confidence.
- Persistence and optimism.
- Orientation to goals and opportunities

Y3: Entrepreneurial Experience

Rosenberg⁽²²⁾ argues that the education system must create people who can innovate - people who can see opportunities and take responsibility for making them happen and, in the process, bring about change. According to the Royal Spanish Academy (RAE), entrepreneurs "have the ability to discover and evaluate opportunities, gather the necessary resources to take advantage of them, and act appropriately to achieve success", so we can say that they exist in all areas (arts, sports, business, politics, etc.), not only in business.

Indicators

- Skills in relations with companies, organizations.
- Experiences in business management.
- Market knowledge.

METHODS**Type of research-applied**

The type of research is applied, because existing knowledge will be used in order to analyze the problem.

According to the authors they affirm that this research depends on the results and advances of basic research, that is, all applied research requires a theoretical framework, although what interests them are the practical consequences.⁽²³⁾

Descriptive-correlational level

The level that will be addressed in this research is the descriptive - correlational since it is about measuring and evaluating the relationship of two variables: Capacity Technological Innovation and Level of Entrepreneurship.

This type of studies aims to evaluate the relationship that exists between two or more concepts, categories or variables (in a particular context). Sometimes only the relationship between two variables is analyzed, which could be represented as X ----- Y, but relationships between three variables are frequently located in the study, which could be represented as follows: X ----- Y; other times multiple relationships are included: X ----- Y --- -- W.⁽²⁴⁾

Quasi-experimental

According to the author I can affirm that this type of research has an objective that correlates with the dimensions of each variable.⁽²⁵⁾

Stated the authors Pedhazur et al.⁽²⁵⁾ What is a quasi-experiment? It is research that possesses all the elements of an experiment, except that subjects are not randomly assigned to groups. In the absence of randomization, the researcher is faced with the task of identifying and separating the effects of treatments from the rest of the factors that affect the dependent variable.

Of which gives us to understand that a quasi-experimental research covers studies that are carried out without the assignment of random groups. Where it can be used to determine social variables. e In this case the investigation will take a group of students who are considered suitable for the

Basic Noun Type

The type of research is substantive when it tries to answer a theoretical problem of the variations of a model and is oriented to "describe and explain", which, in a way, directs it towards basic and pure research. , also adds that validation must be done knowing that all basic research can be substantive, but not necessarily, taking into account a hypothetical framework expressed in a model referring to a latent variable.⁽¹⁾

Cross Section

The cross-sectional design is classified as an individual-based observational study that usually has a dual purpose: descriptive and analytical. It is also known as a prevalence study or cross-sectional survey; Its primary objective is to identify the frequency of a condition or disease in the population studied and is one of the basic designs in epidemiology as well as the design of cases and controls and cohorts.

Cross-sectional designs usually include individuals with and without the condition at a particular time (simultaneous measurement) and in this type of design, the researcher does NOT perform any type of intervention (interference). The researcher performs a single measurement of the variable or variables in each individual (number of measurements); However, when two or more measurements of the variables of interest

are made on the same individual, the design and especially the analysis plan changes, and the cross-sectional design becomes longitudinal. Always remember that the unit of analysis is the individual.⁽²⁶⁾

It is deductive.

For its part, the deductive method—which in terms of its linguistic roots means to drive or extract—is based on reasoning, as is the inductive method. However, its application is totally different, since in this case the intrinsic deduction of the human being allows us to move from general principles to particular facts. This essentially translates into the analysis of the general principles of a specific topic: once it has been verified and verified that a certain principle is valid, it is applied to contexts.⁽²⁷⁾

It is descriptive.

The type of research is based on the detailed analysis of the phenomenon to be studied, managing to characterize the pathology, which can serve as a basis for research that requires a higher level of depth.⁽²³⁾

Materials and Methods

The determination of the sample size in an investigation is of vital importance, both to characterize the distribution of the variable, and to fix the degree of precision of the study". The purpose of this article is to offer assistance in the calculation of sample size when conducting a quantitative study.⁽²⁸⁾

Population

For the development of this research work, the 2021 Enrolled students of the National University of Cañete have been considered as a universe.

UNDC Alumni of the career of administration	Students
VI cycle	69
VIII cycle	71
X cycle	60
Total	200

Selected sample

For the calculation of the sample, stratified and simple random sampling shall be used. Being the equation for the sample size using a defined population.

Sample Calculation

"The present research will be worked with a reliability level of 95 % and a significance level of 5 %."

The following formula shall be used to calculate the preliminary sample.

$$n^0 = \frac{N \times Z^2 (pxq)}{(N-1) e^2 + Z^2 pxq}$$

Being:

Population: 200

Value of normal distribution: $Z = 1,96$

Favorable proportion: $P = 0,5$

Unfavorable proportion: $q = 0,5$

Margin of sampling error: $E = 0,05$

We have:

$$n^0 = \frac{((200(1,96))^2 (0,5 \times 0,5))}{((200-1) \times ((0,05))^2 + ((1,96))^2 (0,5)(0,5))} \quad n^0 = 131,75$$

$$n = \frac{n^0}{(1 + (n^0 - 1)/N)}$$

$$n = \frac{132}{(1 + (132/178))} = 80$$

UNDC Alumni of the career of administration	Frequency
VI cycle	27
VIII cycle	26
X cycle	27
Total	80

Hernandez Sampieri et al.⁽²⁴⁾ gives us to understand that stratification increases the precision of the sample and implies the deliberate use of different sample sizes for each stratum, in order to reduce the variance of each unit of the sample mean.

Procedure and Data Analysis

Quantitative studies are associated with experiments, closed-ended surveys, or studies employing standardized measurement instruments.⁽²⁴⁾ Therefore it is bueo to take into account what type of research we are doing since the same author supports us and clarifies us.

Hernandez Sampieri et al.⁽²⁴⁾ state that There are different types of measuring instruments, each with different characteristics. However, the general procedure for building them is similar. Therefore, before commenting on such a procedure, it is necessary to clarify that in an investigation there are options to the measuring instrument.

According to the OECD,⁽²⁹⁾ referring to research techniques states that: Techniques are the procedures and instruments we use to access knowledge. Surveys, interviews, observations, and everything that derives from them.

The main techniques we will use in the research are:

- Interview
- Surveys
- Observation

The main instrument to be used in research is:

- The Questionnaire: it was developed to a group of students at the national university of Cañete 2021 of the professional school of administration. Where there were two types of questionnaires, one control and one experimental with 20 questions with the Likert scale from 1 to 5, where 1 is never, 2 almost never, 3 sometimes, 4 almost always, 5 always, the same model was used for the second questionnaire.
- Data collection procedures: the data collection procedure taken into account are the questionnaires that could be carried out through the online questionnaire sent to their respective institutional emails, giving a time of 10 minutes programmed during admission. Getting to survey 80 students both control and then experimental. To collect the results harvested from the instruments, two programs have basically been used, Excel to expose tables, and SPSS 22 software for tabulating the questionnaires and to perform the various statistical tests that help us support the results of the research, where it was tried to find the relationships between the proposed hypotheses, of which are proved by the coefficient of the Mann-Whitney U.

RESULTS

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Ineffective	8,8 %	1,3 %	-7,5 %	0,0 %	0,0 %	0,0 %
Regular	60,0 %	57,5 %	-2,5 %	57,5 %	16,3 %	-41,2 %
Effective	31,3 %	41,3 %	10,0 %	42,5 %	83,8 %	41,3 %
Total	100,0 %	100,0 %	0	100,0 %	100,0 %	0

From figure 1, in relation to the variable capacity for technological innovation, of the experimental group,

there is a 0 % advance in the ineffective level, a decrease of 41,2 % in the regular level and an increase of 41,3 % in the effective level. In the control group, the level of ineffectiveness is reduced by 7,5 %, a decrease of 2,5 % in the regular level and an increase of 10,0 % in the effective phase.

It is concluded that the experimental group presented better results at the effective level, 41,3 % compared to 10,0 % of the control group.

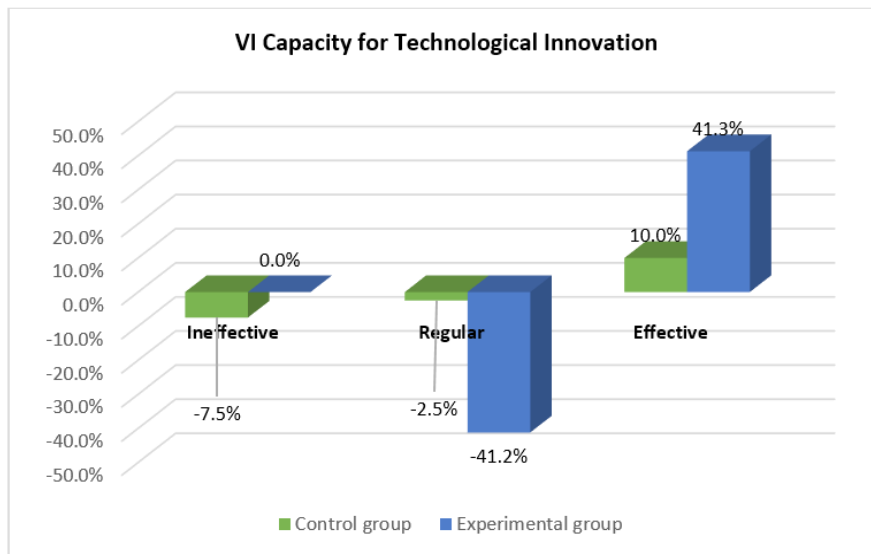


Figure 1. Variable Capacity for Technological Innovation

Table 4. Comparative table of differences between the results of the pretest and posttest of the technological learning dimension R+D

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Ineffective	17,5 %	3,8 %	-13,7 %	0,0 %	0,0 %	0,0 %
Regular	55,0 %	61,3 %	6,3 %	51,2 %	23,8 %	-27,4 %
Effective	27,5 %	35,0 %	7,5 %	48,8 %	76,3 %	27,5 %
Total	100,0 %	100,0 %	0	100,0 %	100,0 %	0,0 %

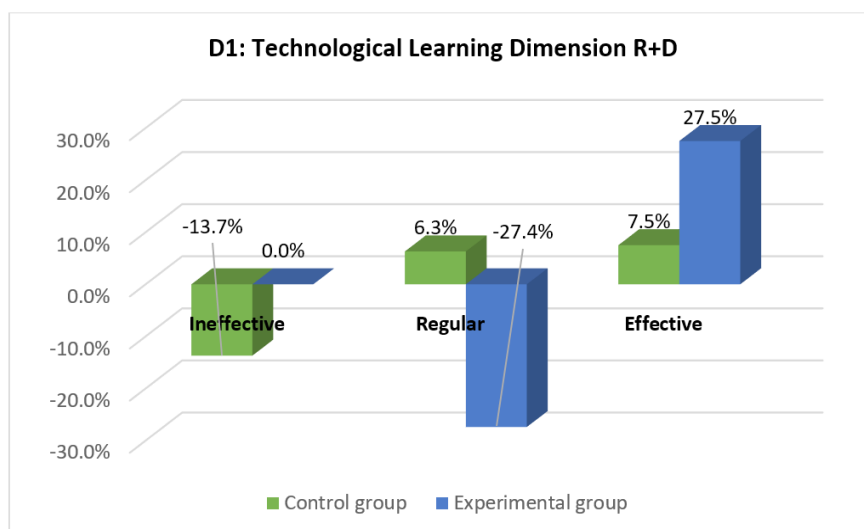


Figure 2. Technological Learning Dimension R+D

From figure 2, in terms of the technological learning dimension R+D, of the experimental group, the increase in the ineffective level is visualized at 0,0 %, a decrease of 27,4 % in the regular level and an increase of 27,5 % in the effective level. In the control group, the level of ineffectiveness is reduced by 13,7 %, increases of 6,3

% in the regular level and 7,5 % in the effective level are also observed.

The experimental group presented better results at the effective level, 27,5 % compared to 7,5 % of the control group.

Table 5. Comparative table of differences between the results of the pretest and posttest of the product innovation dimension

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Ineffective	0,0 %	1,3 %	1,3 %	0,0 %	0,0 %	0,0 %
Regular	42,5 %	60,0 %	17,5 %	38,8 %	11,3 %	-27,5 %
Effective	57,5 %	38,7 %	-18,8 %	61,3 %	88,8 %	27,5 %
Total	100,0 %	100,0 %	0,0 %	100,0 %	100,0 %	0,0 %

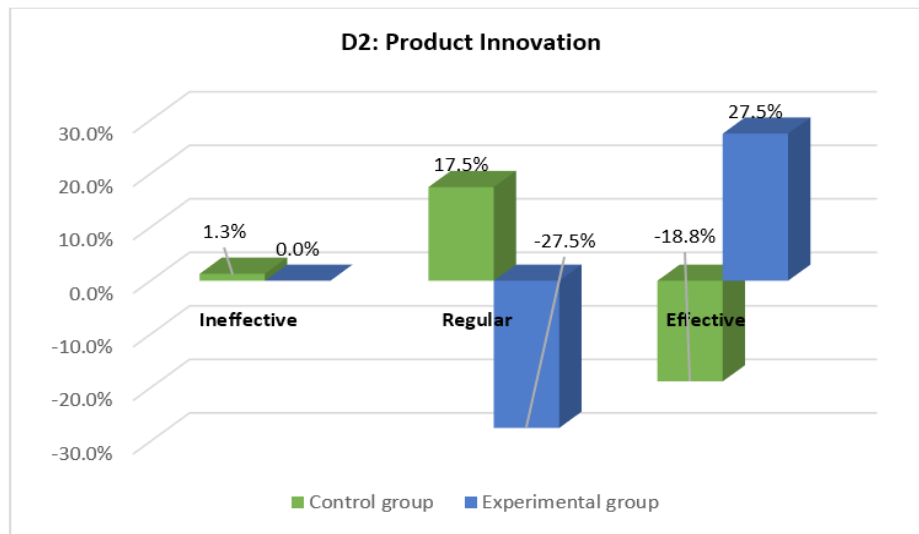


Figure 3. Product Innovation Dimension

From figure 3, regarding the product innovation dimension, of the experimental group, we visualize 0,0 % increase in the ineffective level, a decrease of 27,5 % in the regular level and an increase of 27,5 % in the effective level. Likewise, in the control group, increases of 1,3 % are observed in the ineffective level, 17,5 % in the regular level and there is a decrease of 18,8 % in the effective level.

The experimental group presented better results at the effective level, 27,5 % compared to -18,8 % of the control group.

Table 6. Comparative table of differences between the results of the pretest and posttest of the dimension Organizational innovation

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Ineffective	61,3 %	31,3 %	-30,0 %	0,0 %	0,0 %	0,0 %
Regular	20,0 %	43,7 %	23,7 %	45,0 %	38,7 %	-6,3 %
Effective	18,7 %	25,0 %	6,3 %	55,0 %	61,3 %	6,3 %
Total	100,0 %	100,0 %	0,0 %	100,0 %	100,0 %	0,0 %

From figure 4, regarding the organizational innovation dimension, of the experimental group, we visualize 0,0 % increase in the ineffective level, a decrease of 6,3 % in the regular level and an increase of 6,3 % in the effective level. In the control group, the ineffective level is reduced by 30 % and the regular level is increased by 23,7 % and the effective level by 6,3 %.

The experimental group and control group showed similarity in the increase of the effective dimension (6,3 %).

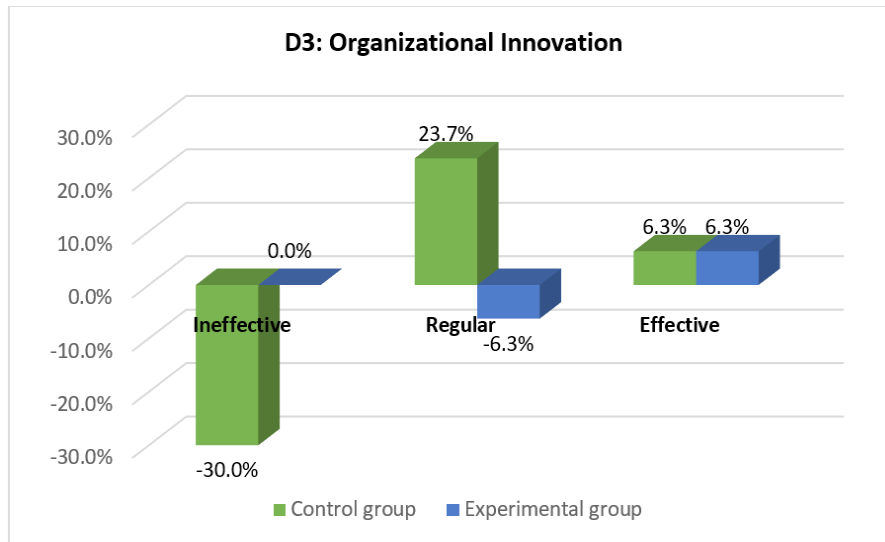


Figure 4. Organizational Innovation Dimension

Table 7. Comparative table of differences between the results of the pretest and posttest of the variable level of entrepreneurship

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Bad boy	11,3 %	0,0 %	-11,3 %	11,3 %	2,5 %	-8,8 %
Regular	50,0 %	45,0 %	-5,0 %	50,0 %	13,8 %	-36,2 %
Well	38,8 %	55,0 %	16,2 %	38,8 %	83,8 %	45,0 %
Total	100 %	100 %	0 %	100 %	100 %	0 %

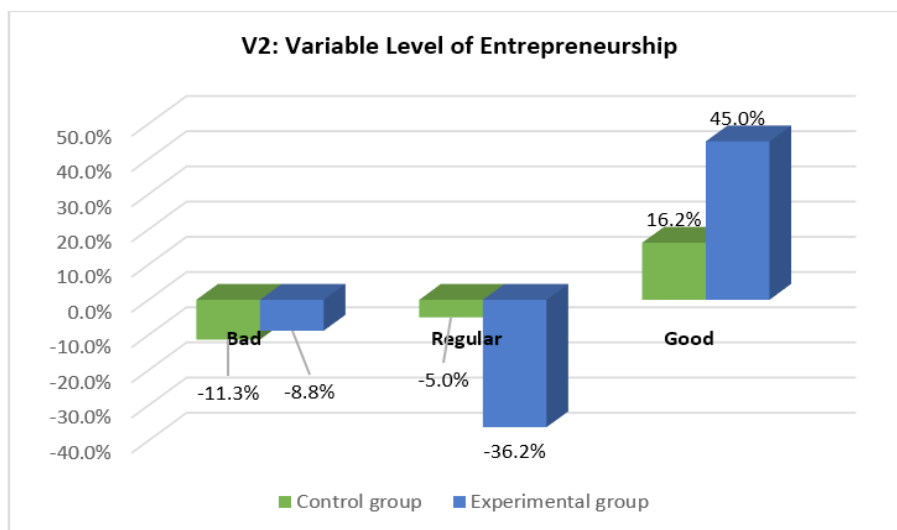


Figure 5. Variable Level of Entrepreneurship

From figure 5, in relation to the variable level of entrepreneurship, of the experimental group, we observe that the bad level is reduced by 8,8 % and the regular level by 36,2 % and the good level is increased by 16,2 %. On the other hand, of the control group, the bad level is reduced by 11,3 % and the regular level by 5,0 % and the good level is increased by 45,0 %.

The control group presented better results at the good level, 45,0 % compared to 16,2 % of the experimental group.

Table 8. Comparative table of differences between the results of the pretest and posttest of the dimension skills and attitudes of the entrepreneur

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Bad boy	15,0 %	3,8 %	-11,2 %	15,0 %	0,0 %	-15,0 %
Regular	38,8 %	56,3 %	17,5 %	38,8 %	11,3 %	-27,5 %
Well	46,3 %	40,0 %	-6,3 %	46,3 %	88,8 %	42,5 %
Total	100 %	100 %	0 %	100 %	100 %	0 %

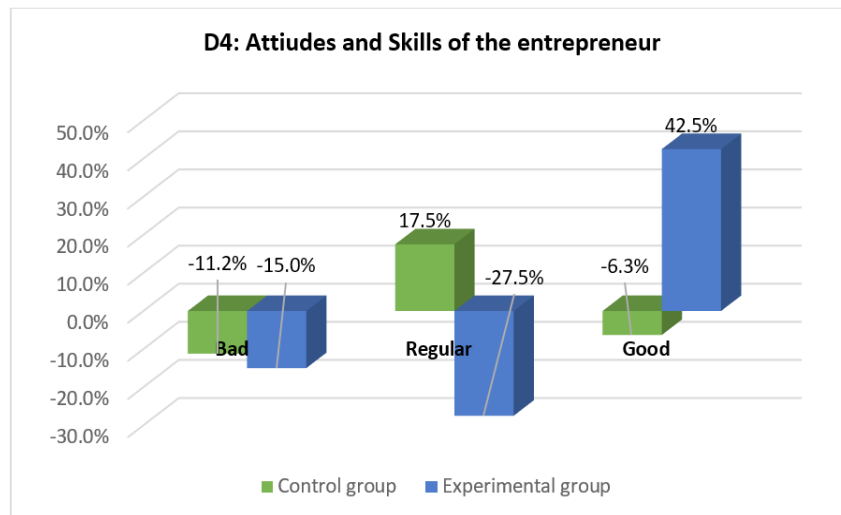


Figure 6. Dimension Attitudes and Skills of the entrepreneur

From figure 6, in relation to the dimension skills and attitudes of the entrepreneur, from the experimental group we observe that the bad level is reduced by 15,0 % and the regular level by 27,5 % and the good level is increased by 42,5 %. On the other hand, of the control group, the bad level is reduced by 11,2 %, the regular level is increased by 17,5 % and the good level is reduced by 6,3 %.

The experimental group presented better results at the good level, 42,5 % compared to -6,3 % of the control group.

Table 9. Comparative table of differences between the results of the pretest and posttest of the entrepreneurial capacity dimension

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Bad boy	25,0 %	10,0 %	-15,0 %	25,0 %	1,3 %	-23,7 %
Regular	48,8 %	38,8 %	-10,0 %	48,8 %	11,3 %	-37,5 %
Well	26,3 %	51,2 %	24,9 %	26,3 %	87,5 %	61,2 %
Total	100 %	100 %	0 %	100 %	100 %	0 %

From figure 7, in relation to the entrepreneurial capacity dimension of the experimental group, we observe that the bad level is reduced by 23,7 % and the regular level by 37,5 % and the good level is increased by 61,2 %. On the other hand, from the control group, we observed that the bad level is reduced by 15,0 % and the regular level by 10,0 % and the good level is increased by 24,9 %.

It can be deduced that the experimental group presented better results at the good level, 61,2 % compared to 24,9 % of the control group.

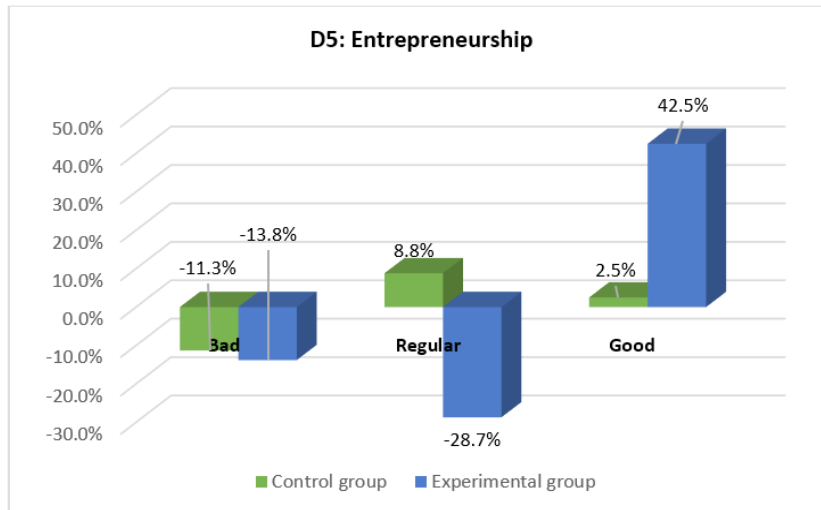


Figure 7. Entrepreneurship Dimension

Table 10. Comparative table of differences between the results of the pretest and posttest of the entrepreneurial experience dimension

Comparative	Control group			Experimental group		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
Bad boy	13,8 %	2,5 %	-11,3 %	13,8 %	0,0 %	-13,8 %
Regular	47,5 %	56,3 %	8,8 %	47,5 %	18,8 %	-28,7 %
Well	38,8 %	41,3 %	2,5 %	38,8 %	81,3 %	42,5 %
Total	100 %	100 %	0 %	100 %	100 %	0 %

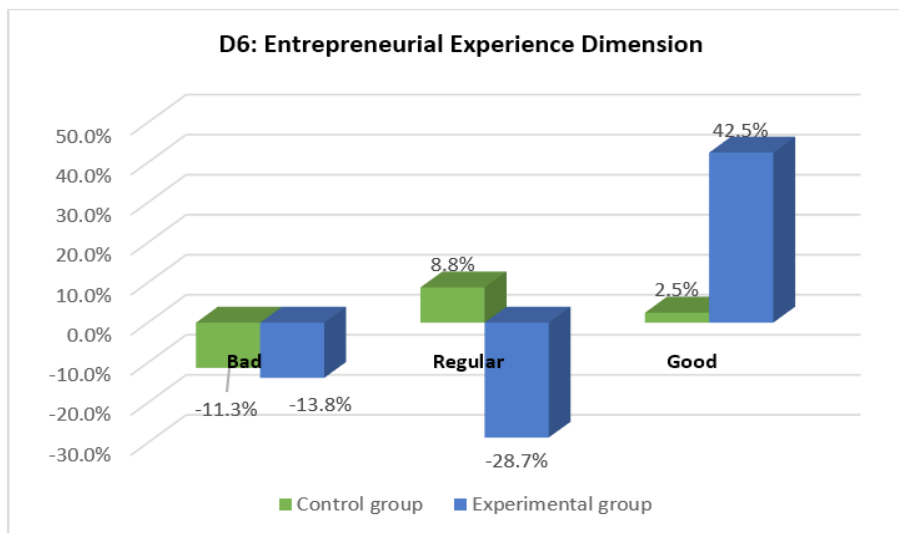


Figure 8. Entrepreneurial Experience Dimension

From figure 8, in relation to the entrepreneurial capacity dimension of the experimental group, we observe that the bad level is reduced by 13,8 % and the regular level by 28,7 % and the good level is increased by 42,5 %. On the other hand, from the control group, we observed that the bad level is reduced by 11,3 % and the regular level is increased by 8,8 % and the good level by 2,5 %.

It can be deduced that the experimental group presented better results at the good level, 42,5 % compared to 2,5 % of the control group.

Inferential analysis

General hypothesis

$H_0: \mu_1 = \mu_2$

The capacity for technological innovation does not influence the level of entrepreneurship in students at the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The capacity for technological innovation influences the level of entrepreneurship in students of the National University of Cañete, 2021.

Table 11. Mann-Whitney statistical test U general hypothesis

	Pretest: Level of entrepreneurship	Posttest: Level of entrepreneurship
U de Mann-Whitney	3200,000	471,000
W de Wilcoxon	6440,000	3711,000
Z	,000	-9,324
Sig. asintót. (bilateral)	1,00	,000

From the results of the posttest, table 9 shows the statistics of the study group, according to the nonparametric test U of Mann Whitney. The bilateral significance is 0,000 which is less than 0,05 and Z of -9,324 less than -1,96, so the null hypothesis is rejected, accepting the alternative hypothesis. In this way, it is verified that after the application of training on the capacity for technological innovation, the level of entrepreneurship is significantly strengthened.

Specific hypothesis test 1

Ho: $\mu_1 = \mu_2$

The capacity for technological innovation does not influence the skills and attitudes of entrepreneurship of students at the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The capacity for technological innovation influences the skills and attitudes of entrepreneurship of students at the National University of Cañete, 2021.

Table 12. Mann-Whitney statistical test U specific hypothesis 1

	Pretest: Skills and attitudes of the entrepreneur	Posttest: Skills and attitudes of the entrepreneur
U de Mann-Whitney	3200,000	644,500
W de Wilcoxon	6440,000	3884,500
Z	,000	-8,781
Sig. asintót. (bilateral)	1,000	,000

From the post-test results, shown in table 10, the statistics of the study group can be seen, according to the nonparametric test U of Mann Whitney. It is observed that the bilateral significance 0,000 is less than 0,05 and Z of -8,781 less than -1,96, so the null hypothesis is rejected, accepting the alternative hypothesis. In this way it is verified that after the application of the training on the capacity of technological innovation, the skills and attitudes of the entrepreneur are significantly strengthened.

Specific hypothesis evaluating 2

Ho: $\mu_1 = \mu_2$

The capacity for technological innovation does not influence the entrepreneurial capacity of students at the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The capacity for technological innovation influences the entrepreneurial capacity of students at the National University of Cañete, 2021.

From the post-test results, shown in table 11, the statistics of the study group can be seen, according to the nonparametric test U of Mann Whitney. It is observed that the bilateral significance 0,000 is less than 0,05 and Z of -8,760 less than -1,96, so the null hypothesis is rejected, accepting the alternative hypothesis. In this way it is verified that after the application of the training on the capacity of technological innovation, the entrepreneurial capacity is significantly strengthened.

	Pretest: Entrepreneurial capacity	Posttest: Entrepreneurship
U de Mann-Whitney	3200,000	652,000
W de Wilcoxon	6440,000	3892,000
Z	,000	-8,760
Sig. asintót. (bilateral)	1,000	,000

Specific hypothesis test 3

Ho: $\mu_1 = \mu_2$

The Capacity for Technological Innovation does not influence the entrepreneurial experience of the students of the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The Capacity for Technological Innovation influences the entrepreneurial experience of students at the National University of Cañete, 2021.

	Pretest: Entrepreneurial Experience	Posttest: Entrepreneurial Experience
U de Mann-Whitney	3200,000	746,000
W de Wilcoxon	6440,000	3986,000
Z	,000	-8,445
Sig. asintót. (bilateral)	1,000	,000

From the post-test results, shown in table 12, the statistics of the study group can be seen, according to the nonparametric Mann Whitney U test. It is observed that the bilateral significance 0,000 is less than 0,05 and Z of -8,445 less than -1,96, so the null hypothesis is rejected, accepting the alternative hypothesis. In this way it is verified that after the application of the training on the capacity of technological innovation, the entrepreneurial experience is significantly strengthened.

Annexes of construction-descriptive analysis

Control group

Questionnaire 1

			Recount	% of N valid columns
Technological Capacity	Innovation	Ineffective	7	8,8
		Regular	48	60,0
		Effective	25	31,3
		Total	80	100,0
Technological R+D	Learning	Ineffective	14	17,5
		Regular	44	55,0
		Effective	22	27,5
		Total	80	100,0
Product Innovation		Ineffective	0	0,0
		Regular	34	42,5
		Effective	46	57,5
		Total	80	100,0

Organizational innovation	Ineffective	49	61,3
	Regular	16	20,0
	Effective	15	18,8
	Total	80	100,0

Questionnaire 2

Table 16. Questionnaire 2			
		Recount	% of N valid columns
Level of Entrepreneurship	Bad boy	9	11,3
	Regular	40	50,0
	Well	31	38,8
	Total	80	100,0
Attitudes and Skills of the entrepreneur	Bad boy	12	15,0
	Regular	31	38,8
	Well	37	46,3
	Total	80	100,0
Entrepreneurial capacity	Bad boy	20	25,0
	Regular	39	48,8
	Well	21	26,3
	Total	80	100,0
Entrepreneurial experience	Bad boy	11	13,8
	Regular	38	47,5
	Well	31	38,8
	Total	80	100,0

Pretest- experimental
Questionnaire 1

Table 17. Questionnaire 1			
		Recount	% of N valid columns
Technological Innovation Capacity	Ineffective	0	0,0
	Regular	46	57,5
	Effective	34	42,5
	Total	80	100,0
Technological Learning R+D	Ineffective	0	0,0
	Regular	41	51,2
	Effective	39	48,8
	Total	80	100,0
Product Innovation	Ineffective	0	0,0
	Regular	31	38,8
	Effective	49	61,3
	Total	80	100,0
Organizational innovation	Ineffective	0	0,0
	Regular	36	45,0
	Effective	44	55,0
	Total	80	100,0

Questionnaire 2

Table 18. Questionnaire 2			
		Recount	% of N valid columns
Level of entrepreneurship	Bad boy	9	11,3
	Regular	40	50,0
	Well	31	38,8
	Total	80	100,0
Attitudes and Skills of the entrepreneur	Bad boy	12	15,0
	Regular	31	38,8
	Well	37	46,3
	Total	80	100,0
Entrepreneurial capacity	Bad boy	20	25,0
	Regular	39	48,8
	Well	21	26,3
	Total	80	100,0
Entrepreneurial experience	Bad boy	11	13,8
	Regular	38	47,5
	Well	31	38,8
	Total	80	100,0

Posttest- control
Questionnaire 1

Table 19. Questionnaire 1			
		Recount	% of N valid columns
Capacity for technological innovation	Ineffective	1	1,3
	Regular	46	57,5
	Effective	33	41,3
	Total	80	100,0
Technological Learning R+D	Ineffective	3	3,8
	Regular	49	61,3
	Effective	28	35,0
	Total	80	100,0
Product Innovation	Ineffective	1	1,3
	Regular	48	60,0
	Effective	31	38,7
	Total	80	100,0
Organizational innovation	Ineffective	25	31,3
	Regular	35	43,7
	Effective	20	25,0
	Total	80	100,0

Questionnaire 2

		Recount	% of N valid columns
Level of entrepreneurship	Bad boy	0	0,0
	Regular	36	45,0
	Well	44	55,0
	Total	80	100,0
Attitudes and Skills of the entrepreneur	Bad boy	3	3,8
	Regular	45	56,3
	Well	32	40,0
	Total	80	100,0
Entrepreneurial capacity	Bad boy	8	10,0
	Regular	31	38,8
	Well	41	51,2
	Total	80	100,0
Entrepreneurial experience	Bad boy	2	2,5
	Regular	45	56,3
	Well	33	41,3
	Total	80	100,0

Posttest- experimental
Questionnaire 1

		Recount	% of N valid columns
Capacity for technological innovation	Ineffective	0	0,0
	Regular	13	16,3
	Effective	67	83,8
	Total	80	100,0
Technological Learning R+D	Ineffective	0	0,0
	Regular	19	23,8
	Effective	61	76,3
	Total	80	100,0
Product Innovation	Ineffective	0	0,0
	Regular	9	11,3
	Effective	71	88,8
	Total	80	100,0
Organizational innovation	Ineffective	0	0,0
	Regular	31	38,7
	Effective	49	61,3
	Total	80	100,0

Questionnaire 2

		Recount	% of N valid columns
Level of entrepreneurship	Bad boy	2	2,5
	Regular	11	13,8
	Well	67	83,8
	Total	80	100,0
Attitudes and Skills of the entrepreneur	Bad boy	2	2,5
	Regular	11	13,8
	Well	67	83,8
	Total	80	100,0
Entrepreneurial capacity	Bad boy	1	1,3
	Regular	9	11,3
	Well	70	87,5
	Total	80	100,0
Entrepreneurial experience	Bad boy	0	0,0
	Regular	15	18,8
	Well	65	81,3
	Total	80	100,0

Annexes of construction of the inferential analysis

Hypothesis testing

Variable 2: Level of entrepreneurship

General hypothesis:

Ho: $\mu_1 = \mu_2$

The capacity for technological innovation does not influence the level of entrepreneurship in students at the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The capacity for technological innovation influences the level of entrepreneurship in students at the National University of Cañete, 2021.

Normality test

Test	Groups	Kolmogorov-Smirnov			
		Statistical	Gl	Gis.	
Pretest	Level of entrepreneurship	Control	,121	80	,005
		Experimental	,121	80	,005
Posttest	Level of entrepreneurship	Control	,116	80	,010
		Experimental	,082	80	,200*

Value > 0,05 NORMAL

Value < 0,05 NOT NORMAL

Test	Level of entrepreneurship	
Pretest	U de Mann-Whitney	3200,000
	W de Wilcoxon	6440,000
	Z	,000
	Asymptotic sig (bilateral)	1,000

Posttest	U de Mann-Whitney	471,000
	W de Wilcoxon	3711,000
	Z	-9,324
	Asymptotic sig (bilateral)	,000

Specific hypothesis test 1

Ho: $\mu_1 = \mu_2$

The capacity for technological innovation does not influence the skills and attitudes of entrepreneurship of students at the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The capacity for technological innovation influences the skills and attitudes of entrepreneurship of students at the National University of Cañete, 2021

Normality test

Test	Groups	Kolmogorov-Smirnov			
		Statistical	Gl	Gis.	
Pretest	Entrepreneurship skills and attitudes	Control	,181	80	,000
		Experimental	,181	80	,000
Posttest	Entrepreneurship skills and attitudes	Control	,140	80	,001
		Experimental	,158	80	,000

Value > 0,05 NORMAL

Value < 0,05 NOT NORMAL

Test	Entrepreneurship skills and attitudes	
Pretest	U de Mann-Whitney	3200,000
	W de Wilcoxon	6440,000
	Z	,000
	Asymptotic sig (bilateral)	1,000
Posttest	U de Mann-Whitney	644,500
	W de Wilcoxon	3884,500
	Z	-8,781
	Asymptotic sig (bilateral)	,000

Specific hypothesis evaluating 2

Ho: $\mu_1 = \mu_2$

The capacity for technological innovation does not influence the entrepreneurial capacity of students at the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The capacity for technological innovation influences the entrepreneurial capacity of students at the National University of Cañete, 2021.

Normality test

Table 27. Normality test

Test	Groups	Kolmogorov-Smirnov			
		Statistical	Gl	Gis.	
Pretest	Entrepreneurial capacity	Control	,170	80	,000
		Experimental	,170	80	,000
Posttest	Entrepreneurial capacity	Control	,175	80	,000
		Experimental	,175	80	,000

Value > 0,05 NORMAL
 Value < 0,05 NOT NORMAL

Table 28. Test statistics

Test	Entrepreneurial capacity	
Pretest	U de Mann-Whitney	3200,000
	W de Wilcoxon	6440,000
	Z	,000
	Asymptotic sig (bilateral)	1,000
Posttest	U de Mann-Whitney	652,000
	W de Wilcoxon	3892,000
	Z	-8,760
	Asymptotic sig (bilateral)	,000

Specific hypothesis test 3

Ho: $\mu_1 = \mu_2$

The Capacity for Technological Innovation does not influence the entrepreneurial experience of the students of the National University of Cañete, 2021.

Hi: $\mu_1 \neq \mu_2$

The Capacity for Technological Innovation influences the entrepreneurial experience of students at the National University of Cañete, 2021.

Normality test

Table 29. Normality test

Test	Groups	Kolmogorov-Smirnov			
		Statistical	Gl	Gis.	
Pretest	Entrepreneurial experience	Control	,147	80	,000
		Experimental	,147	80	,000
Posttest	Entrepreneurial experience	Control	,148	80	,000
		Experimental	,124	80	,004

Value > 0,05 NORMAL
 Value < 0,05 NOT NORMAL

Test		Entrepreneurial experience
Pretest	U de Mann-Whitney	3200,000
	W de Wilcoxon	6440,000
	Z	,000
	Asymptotic sig (bilateral)	1,000
Posttest	U de Mann-Whitney	746,000
	W de Wilcoxon	3986,000
	Z	-8,445
	Asymptotic sig (bilateral)	,000

DISCUSSIONS

In this research, two questionnaires were used, one of control and the other is experimental of two variables, questionnaires formulated according to the author Núñez de Sarmiento⁽²⁰⁾. The questionnaires have been used in the research with the intention of determining how the capacity for technological innovation influences the level of entrepreneurship of students at the national university of Cañete. The solutions found in the present research are listed as follows:

General hypothesis

With respect to the general hypothesis, the capacity for technological innovation and the level of entrepreneurship according to the nonparametric test U of Mann Whitney. The bilateral significance is (0,000 which is less than 0,05 and Z of -9,324 less than -1,96), with which it can be concluded that the capacity for technological innovation if it is positively related to the level of entrepreneurship, that is why the alternative hypothesis is approved, while the moon hypothesis is rejected. Regarding the relationship between variables of this study, the respective comparison is made with other authors' investigations that take into account the same variables:

First specific hypothesis

In the first specific hypothesis, The Capacity for Technological Innovation influences the skills and attitudes of entrepreneurship of students of the national university of Cañete, 202, The null hypothesis is rejected, while the alternative hypothesis is accepted having a correlation coefficient according to the nonparametric test U of Mann Whitney. It is observed that the bilateral significance (0,000 is less than 0,05 and Z of -8,781 less than -1,96), therefore, it follows that the skills and attitudes of entrepreneurship if it is positively related to the capacity for technological innovation. To support this result obtained in the first specific hypothesis, we can see mention of different researchers, the same ones to which they concluded, for example, Rosenberg⁽²²⁾, points out that the capacity for technological innovation requires the analysis of the learning processes that are carried out in the R&D phase, production, and the use of technology. For Rosenberg, the R&D process is a learning process in the generation of new technologies.

Second specific hypothesis

In the second specific hypothesis. The capacity for technological innovation influences the entrepreneurial capacity of students at the National University of Cañete, 2021. The null hypothesis is rejected, while the alternate hypothesis is accepted by having a correlation coefficient according to the nonparametric Mann Whitney test U. It is observed that the bilateral significance (0,000 is less than 0,05 and Z of -8,760 less than -1,96), In this way it is verified that after the application of the training on the capacity of technological innovation, the entrepreneurial capacity is significantly strengthened. Mention can be made of different researchers from according to Avalos⁽³⁰⁾ technological innovation is a unified process involving technology, organization, business and finance activities. That many of the students have an entrepreneurial capacity to achieve great ventures.

Third specific hypothesis

In the third specific hypothesis, The Capacity for Technological Innovation influences the entrepreneurial experience of students at the National University of Cañete, 2021. The null hypothesis is rejected, while the alternate hypothesis is accepted by having a correlation coefficient according to the nonparametric Mann Whitney test U. It is observed that the bilateral significance (0,000 is less than 0,05 and Z of -8,445 less than -1,96). In this way it is verified that after the application of the training on the capacity of technological

innovation, the entrepreneurial experience is significantly strengthened. If it is positively related reaching the same conclusion with the researcher Garzón Castrillón *et al.*⁽³¹⁾ if the entrepreneur is not organized, understanding by this concept "assigning, grouping and relating people with resources and technology to form subsystems in order to implement the selected strategy in their entrepreneurial experiences.

CONCLUSIONS

- It is concluded that the capacity for technological innovation as a matter to make known in the level of entrepreneurship of the students of which they gave good results in their abilities and knowledge in the elaboration of their projects and business ideas.
- This research aims to make known that the students of the national university of Cañete are entrepreneurs and prepared in their professional life, more than having the knowledge and uses of technology in their professional development.
- This research reflects the positivism of technological learning R + D (innovation and Development) in the processes that were carried out in each stage of training with students and because the interest of doing business was shown in the face of circumstances that may arise. The existence of technological learning and research activities, use of the internet and ICT that allows the student to make efforts to promote the improvement of their capacity and technological development in their personal development demonstrates that the student is suitable for doing business or ideas that are ventures that promote employment or satisfactory profits before society.
- In the same context, the quasi-experimental analysis indicates that there is a positive and considerable impact between the results of the capacity for technological innovation and entrepreneurial capacity, according to their coefficients, this is effective, since it is shown that students show interest in learning and executing innovation projects that carry processes and strategies used by an entrepreneur. Of which this encourages new ideas that lead to productivity, improvement of environment of students in the university and outside the house of studies.
- According to the results obtained in the present research, this analysis is demonstrated that the general hypothesis indicates positive and considerable capacity for technological innovation influences the entrepreneurship of students of the national university of Cañete. Being a Kolmogorov-Smirnov normality test (0-082), it was made with the intention of knowing if the data obtained have parametric or non-parametric distribution; In other words, it is about finding a concordance between the distribution of the sample and the specific theoretical distribution that was carried out in that project.

RECOMMENDATIONS

- That creating innovative projects must promote the culture of processes and strategies that are required and likewise that the university can count on budgets and policies defined for the respective support, from which new ventures or improvements of inclusion by technology with more motivation towards students can arise.
- The creation of a business incubator is the strengthening and motivation to grow as an institution, more than that future professionals will keep in mind to emerge their own companies that are promoting new expectations or improvements in quality of service or product that society requires, and this is required that we are all satisfied.
- Similarly, it is recommended that the level of entrepreneurship is the complement of the teachings of the classrooms, the use of technologies is necessary and are part of any process in the academic training of students.

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The authors declare that there is no conflict of interest.

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