



# OBJETIVOS DE DESARROLLO SOSTENIBLE

**8** TRABAJO DECENTE  
Y CRECIMIENTO  
ECONÓMICO



# Alianza para el desarrollo productivo de jóvenes afro emprendedores



Entre enero y abril de 2023, la carrera de Administración y Gerencia del Emprendimiento de la UPC, en alianza con la Casa de la Cultura de Chorrillos, realizó talleres orientados al fortalecimiento de las capacidades de los jóvenes entre 15 y 29 años pertenecientes a comunidades y poblaciones afrodescendientes de Lima y Callao. El objetivo fue empoderarlos para la defensa y promoción de sus derechos y motivarlos a participar en la política intercultural.

Durante los talleres se realizaron diferentes técnicas y dinámicas contribuyendo a la exposición de la pluralidad de iniciativas emprendedoras.



# Nuevas Voces Fest



El 29 de junio de 2023, la carrera de Comunicación Audiovisual y Medios Interactivos de la UPC participó en el Festival Nuevas Voces Fest. El objetivo fue establecer un sistema de promoción para los músicos emergentes y apoyarlos con la difusión, y visibilidad de su arte.

En este evento se dio a conocer a los artistas musicales emergentes a través de una transmisión en línea realizada en la plataforma de streaming Twitch, que incluyó videoclips, presentaciones, entrevistas y recomendaciones musicales enviadas por los seguidores y músicos que quisieron promocionar su arte.



# Código de ética para emprendimiento social



Durante los dos semestres académicos 2023, los alumnos de la carrera de Administración y Recursos Humanos de la UPC contactaron con más de 50 iniciativas que postularon para los Protagonistas del Cambio, programa de responsabilidad social de la UPC, con el objetivo de desarrollar el código de ética para un emprendimiento con impacto social y ambiental.

En este trabajo académico los alumnos abordaron a la organización previamente inscrita a nivel nacional para brindarles consejería y apoyo en la realización de su código de ética. Esta labor permitió que los alumnos desarrollen un trabajo real a una organización y que empaticen con el problema social.



# Informe de aplicabilidad de Empresas B a Pymes y Mypes



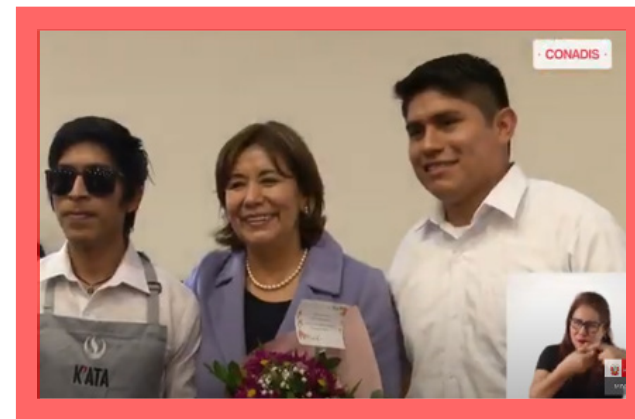
Durante los dos semestres académicos 2023, los alumnos de la carrera de Administración y Recursos Humanos de la UPC realizaron un informe de aplicabilidad de empresas B (empresas que cumplen con estándares de desempeño social y ambiental) a Pymes y Mypes. El alumno asumió el rol de consultor de empresas.

Durante el proceso de la actividad, el alumno aplicó la herramienta de evaluación de impacto brindada por sistema B, se familiarizó con la terminología de sostenibilidad y recomendó propuestas de mejora para reducir los impactos. Un total de 160 Pymes y Mypes fueron beneficiadas con esta actividad.





# Programa de Capacitación y Entrenamiento “Camarero Junior”



En noviembre de 2023, la Facultad de Administración en Hotelería y Turismo de la UPC celebró con éxito la clausura de la tercera edición del programa de voluntariado “Capacitación y Entrenamiento Camarero Junior”. Este programa, que inició en 2021, tuvo como objetivo principal capacitar a jóvenes y adultos en situación vulnerable para acceder a oportunidades laborales en el sector de restaurantes.

En esta edición especial, la UPC trabajó

en estrecha colaboración con el Consejo Nacional para la Integración de la Persona con Discapacidad (Conadis), reafirmando su compromiso con la inclusión y la formación integral de la comunidad.

Los alumnos desempeñaron el valioso rol de mentores durante las 10 semanas del programa, brindando orientación y apoyo a los participantes. Este evento no solo representó un logro individual para los participantes, sino también el éxito de una

iniciativa que promovió la inclusión y la participación de la comunidad estudiantil en proyectos de responsabilidad social.

El evento contó con la distinguida presencia de la ministra de la Mujer. A través de esta iniciativa, la UPC reafirmó su compromiso de formar profesionales con una perspectiva socialmente consciente, promoviendo la participación de los alumnos en iniciativas que enriquecen su formación y contribuyen positivamente a la sociedad.

# Concurso de Proyectos de Desarrollo Turístico de la Ciudad al Campo- (3 Edición)



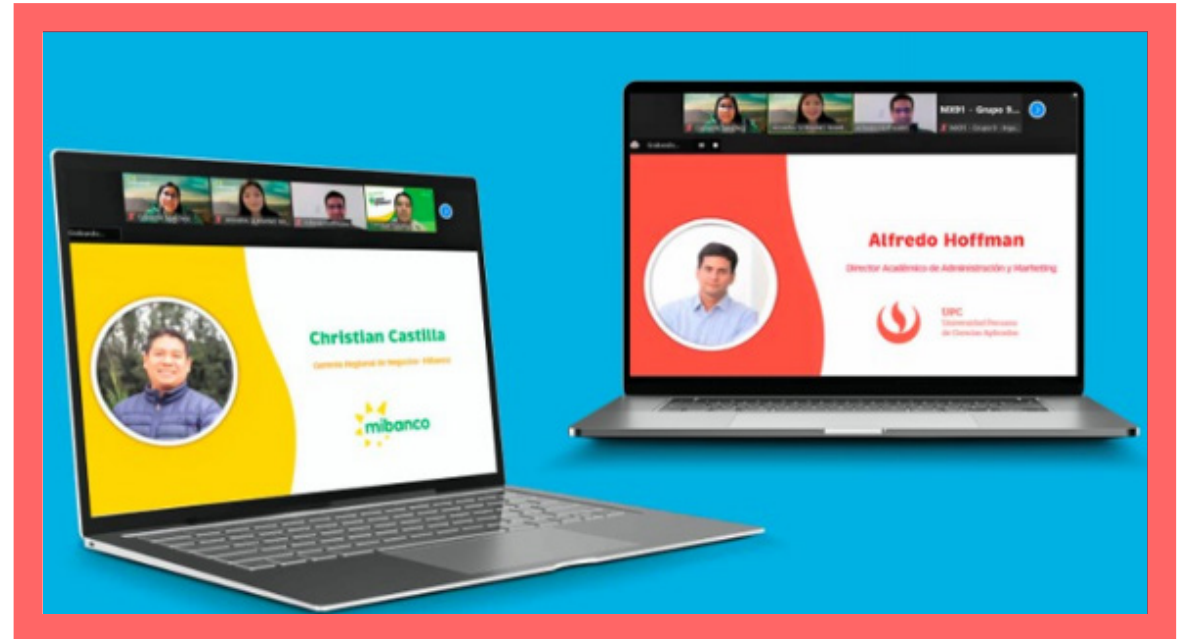
La Facultad de Administración en Hotelería y Turismo de la UPC y StartUPC, en alianza con el Instituto Iberoamericano de Turismo Rural (IBEROATUR), convocaron a estudiantes de las carreras de turismo, hotelería, gastronomía o afines de universidades públicas y privadas a la 3ra Edición del Concurso de Proyectos de Desarrollo Turístico de la Ciudad al Campo, que se realizó en modalidad virtual el 22 y el 23 de noviembre.

Se seleccionaron proyectos que tuvieron como característica principal proponer nuevas alternativas de empleo e ingresos que permitan diversificar las actividades agrícolas y agroindustriales de los pobladores rurales, demostrando a través de los proyectos beneficios para los propietarios de los emprendimientos y para los pobladores rurales dedicados al agro.



El objetivo de esta competencia fue fomentar proyectos que impulsen el flujo turístico hacia áreas con un gran potencial y en desarrollo, con un enfoque especial en el turismo rural, como el agroturismo, enoturismo, gastro turismo y otras categorías relacionadas.

# Mi consultor UPC



La carrera de Administración y Marketing de la UPC, en alianza con Mi Banco, dio inicio al programa “Mi consultor UPC”, con el objetivo de beneficiar a los emprendedores de la micro, pequeña y mediana empresa de todo el país, y a los alumnos, quienes aplicaron sus co-

nocimientos de marketing y brindaron asesorías gratuitas y personalizadas en una empresa real, durante el ciclo académico.

Esta iniciativa buscó que las empresas que participaron en el programa se be-

neficien con los conocimientos de los alumnos. A cada empresario se le asignó un grupo de alumnos del curso Diseño del Plan de Marketing. Al finalizar el curso, se entregó un Plan de Marketing al empresario por parte del grupo de alumnos, el cual fue trabajado con ellos.





# Alumnos del programa de Ingeniería de Gestión Minera participaron con éxito en congresos y talleres



Alumnos de la carrera de Ingeniería de Gestión Minera de la UPC participaron en las siguientes actividades y talleres formativos durante el semestre 2023-1:

- Congreso nacional de estudiantes de Ingeniería de Minas (CONEIMIN).
- Encuentro de Minería RRSS (residuos sólidos).
- Taller de RRSS Grupo Amautas UPC.
- Capacitación a estudiantes destacados.

Todas estas actividades se realizaron con el objetivo de fortalecer los conocimientos teórico-prácticos en la minería de manera responsable y sostenible en el tiempo, actualizar conocimientos en proyectos mineros responsables, en gestión estratégica y residuos sólidos (RRSS).



# Núcleo de Apoyo Contable y Fiscal - NAF



Con el objetivo de incentivar la cultura tributaria en nuestro país, alumnos de la carrera de Contabilidad y Administración de la UPC participaron en el programa “Núcleo de Apoyo Contable y Fiscal-NAF”.

Este programa brindó orientaciones tributarias a personas naturales y a

pequeñas empresas de manera gratuita. Esto permitió difundir la importancia del pago y la declaración oportuna de tributos. Para este fin, los alumnos fueron capacitados durante 20 horas por la SUNAT. Desde enero hasta setiembre de 2023 se realizaron 3180 orientaciones.

Mediante esta iniciativa, los alumnos desarrollaron habilidades blandas como la de comunicación efectiva, investigación, ciudadanía y responsabilidad social, aportando a la comunidad la importancia de la formalización en nuestro país para la contribución, a través de los impuestos, a la construcción de más escuelas, hospitales y carreteras.

# Coaching a emprendedores sociales



Con el objetivo de brindar acompañamiento a seis emprendedores sociales que participaron del Programa Protagonistas del Cambio, docentes de la carrera de Administración y Recursos Humanos de la UPC participaron en el programa “Coaching a emprendedores sociales”, donde brindaron acompañamiento a los emprendedores sociales que participaron del PDC 2023.

Esta actividad fortaleció la empatía y solidaridad entre los seis docentes voluntarios con los emprendedores sociales, y a la vez reforzó el vínculo con la carrera.





# ¿Es necesario un colegio de politólogos?



El 29 de setiembre de 2023, la carrera de Ciencias Políticas de la UPC participó en el panel de discusión: ¿Es necesario un Colegio de Politólogos?

Este evento se desarrolló en el Salón de Grados de la Facultad de Derecho y Ciencia Política (FDCP), de la Universidad Nacional Mayor de San Marcos, con el objetivo de debatir sobre un proyecto de ley existente en el Congreso que plantea la creación de un Colegio de Politólogos en nuestro país.

El director de la carrera, Omar Awapara, como representante de la universidad y los futuros profesionales en Ciencias Políticas, defendió la postura contraria en nombre de la empleabilidad de los estudiantes de Ciencias Políticas.

ESCUOLA PROFESIONAL DE CIENCIA POLÍTICA

SEPTIEMBRE MES DE LA CIENCIA POLÍTICA

UNMSM

¿ES NECESARIO UN COLEGIO DE POLITÓLOGOS?

**PARTICIPAN:**

- Dr. Omar Awapara**  
Director de Ciencia Política en UPC
- Mg. Yimy Reynaga**  
Politóloga por la UNFV
- Jaime Mayaupoma**  
Politólogo por la UNMSM
- Valerie Tarazona Kong**  
Politóloga por la PUCP

**Viernes 29**  
de setiembre

**2:00 pm**

**Salón de Grados FDCP**



# Capacitación a profesores de colegios de Lima Metropolitana



El Departamento de Humanidades de la Universidad Peruana de Ciencias Aplicadas (UPC) realizó por cuarto año consecutivo el proyecto “Capacitación a Profesores de Colegios de Lima Metropolitana”, con el objetivo de potenciar las habilidades de los docentes en temas de redacción digital, investigación y el uso de metodologías modernas en el área de comunicación escrita.

En esta nueva edición, la misma que todos los años es totalmente gratuita para los participantes, se dictaron tres talleres:

- Uso de la redacción en el aprendizaje orientado a proyectos.
- Didáctica y funcionalidad de la argumentación en el aula.



- Desarrollo de la investigación cualitativa con la técnica de análisis de contenido.
- El enfoque de este proyecto fue la contribución con el desarrollo profesional de los docentes participantes para impactar positivamente en la formación de sus estudiantes.



# UPC se une a la Fundación Romero como aliado en el Programa Generación Plateada



La UPC, en alineamiento a su compromiso con la educación continua, se sumó al programa “Generación Plateada”, una iniciativa de la Fundación Romero destinada a potenciar los conocimientos de adultos mayores de 50 años. El programa “Generación Plateada” ofrece a los participantes la oportunidad de acceder a charlas y capacitaciones especializadas, así como a recursos educativos diseñados específicamente para fortalecer las capacidades que impulsen su empleabilidad y espíritu emprendedor. Entre los temas abordados se encuentran el desarrollo de habilidades digitales, emprendimiento, salud, bienestar, entre otros temas relevantes. Desde el 2023, la UPC se sumó a este propósito de aportar a la formación y desarrollo personal y profesional de los participantes del programa, a través de la facilitación de 11 “Silver Talks”. Las sesiones educativas presenciales y virtuales fueron dirigidas por profesionales especializados de la UPC.



# UPC se une a Alicorp, Mi Banco, Cargill y Juguete Pendiente para promover los emprendimientos de las ollas comunes



En un esfuerzo conjunto por fomentar el espíritu emprendedor y contribuir a la sostenibilidad de las ollas comunes, la Universidad Peruana de Ciencias Aplicadas (UPC), Alicorp, Mi Banco, Cargill y Juguete Pendiente se unen en el programa “Ollas que Desarrollan”.

Esta iniciativa tiene como objetivo brindar capacitación y apoyo a las líderes de las ollas comunes, ayudándolas a establecer emprendimientos complementarios que generen ingresos adicionales y fortalezcan la autonomía de sus comunidades.

En esta etapa de “Ollas que Desarrollan” se trabajó con 110 líderes representantes de 55 ollas comunes, brindándoles capacitación y mentoría en diferentes áreas clave como ventas, propuesta de valor, conocimiento del cliente, finanzas y contabilidad.



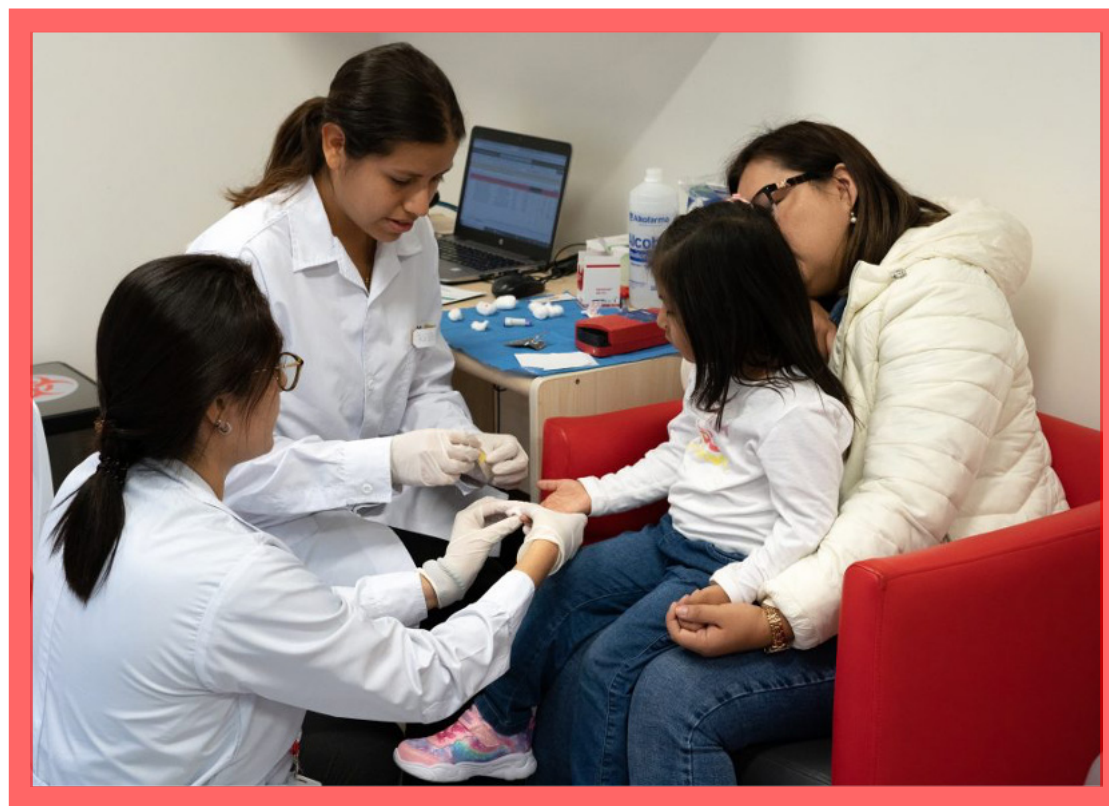


# UPC se une a la lucha contra la anemia a través de la Campaña Anemia Cero



En el marco de su compromiso en la lucha contra la anemia, la Universidad Peruana de Ciencias Aplicadas (UPC) realizó en el 2023 la “Campaña Anemia Cero” en alianza con la ONG Peruanos por Peruanos. Esta iniciativa, en su primera etapa, tuvo como objetivo detectar y prevenir la anemia en hijos de colaboradores de las instituciones UPC, UPN, Cibertec y Laureate, en edades comprendidas entre 0 y 3 años.

Durante los meses de julio y noviembre, los colaboradores tuvieron la oportunidad de llevar a sus hijos a las instalaciones de UPC para una evaluación gratuita de detección de anemia. Adicionalmente, se brindó consejería especializada en nutrición para promover una alimentación adecuada y prevenir futuros casos de anemia.





# Analyzing sustainability indicator for Chinese mining sector



**Authors:** Li, Y.; Barrueta Pinto, M.C.; Kumar, D.T.

**Abstract:** In this study we explore the elements that integrate the profiles of university graduates in Peru of the audiovisual communication career and the implications of the sociocultural context in their graduate research. The objective is to identify the profiles of university graduates and the implications of the sociocultural context during the development of the process.

With qualitative methodology, the interpretative paradigm model and using the semi-structured interview technique, we identify their perceptions. The conclusions remark that the elements that integrate these profiles have particularities that must be considered when entering the labor market.

**Keywords:** Context; Education; Interest; Profiles; Research; Sociocultural; University graduates

Resources Policy; Volume 80

<https://doi.org/10.1016/j.resourpol.2022.103275>



# Process Improvement Model based on Lean Manufacturing and Kaizen to Increase Machine Availability at a Plastics Company



**Authors:** Caso-Murillo, N.; León Mejía, R.; Quiroz-Flores, J.

**Abstract:** The case study is a company that produces and sells plastic containers. Through a production time assessment, the low availability of injection machines was identified as the main problem. The availability rate for these machines was set at 80.19%, which represented a relevant issue since the worldwide standard is 90%. These low availability rates are mainly due to machine breakdowns, representing 9.87% in lost revenue for the company. To improve machine availability, this study proposed an improvement model combining Lean Manufacturing tools with Kaizen, which refers to continuous process improvement. The model is also integrated with Ergonomics concepts aimed at improving working conditions for operators. Hence, if improvements are achieved regarding human capital, machine availability will also improve. Within this context, the proposed model was piloted at the company, increasing machine availability by 6.8%, reducing lost revenue by 3.9%, and increasing company profits by 13.12%.

**Keywords:** Process improvement model; Lean Manufacturing; Plastics Company; Plastic containers; Injection machines

AIP Conference Proceedings; Volume 2613

<https://doi.org/10.1063/5.0119321>



# Inventory control model based on Big Data, EOQ, ABC and forecast to increase productivity in a hardware SME



**Authors:** Within the commercial sector, SMEs represent more than 90% of all companies; they are responsible for 50% of GDP and generate between 60% and 70% of employment worldwide, which is why they are critical in the Peruvian economy. However, through an exhaustive review of the literature and sectoral analysis, we concluded they have a high risk of failure in the short term due to various problems, such as poor inventory management. In Peru, the provisions for carrying out inventories usually have a ratio of between 1% and 1.4% of the total inventory stock; thus, SMEs belonging to the hardware sector more frequently present this problem that affects the profitability of their companies. For this reason, the need arises to design an inventory control model that increases the productivity of hardware SMEs. After the pilot implementation of the first component, an increase in distribution efficiency of 11% is achieved, and its effectiveness is supported by simulating the entire model, obtaining the same results.

**Keywords:** ABC analysis; Big Data; EOQ; Increased productivity; inventory control; SMEs; Commercial sector; SMEs (Small and Medium-sized Enterprises); GDP (Gross Domestic Product); Peruvian economy

ACM International Conference Proceeding Series, Pages 271-275

<https://doi.org/10.1145/3588243.3588245>



# Strategic Digital Transformation model that allows increasing the profitability of a logistics SME in Lima-Peru through the use of Digital Canvas and Big Data to promote electronic commerce



**Authors:** Pérez Sono, Mauricio Eduardo, Zapata Díaz, Geinner Aldair, Ramírez, Valdivia, Cesar

**Abstract:** During the Covid-19 pandemic, social immobilization was implemented in most economies as a measure to reduce the level of infections, which had an impact on the consumption of products and services, thus affecting the competitive position of companies in general. ; Given this situation, a measure that companies implemented was the development of electronic commerce as a new sales channel, and in the Peruvian case growth rates of over 130% were achieved, however, the growth rates of this sales channel were have been slowing down in recent years due to various factors, among which are that consumers consider that this sales channel has a high price, the lack of traceability in the delivery process, dissatisfaction with deliveries and various factors that are attributable to the last link in this productive chain, which are the light logistics companies. In the Peruvian case, light logistics companies constitute 99.5% of the total companies in the local market, however, this is where the conflict arises because 83.5% of these companies are informal, 90% have a period of maximum life of 10 months, they lack structured processes and technology that adapts to the needs of





# Strategic Digital Transformation model that allows increasing the profitability of a logistics SME in Lima-Peru through the use of Digital Canvas and Big Data to promote electronic commerce



clients, among other factors, which has prevented continued market development; Thus, the objective of this research is to propose a model to increase the productivity and competitiveness of logistics SMEs based on digital transformation that allows them to align their strategy and processes to the needs of the new sales channel (e-commerce) in an agile way. and fast, taking into account that there is a gap in the existing models since in the Peruvian case the existing digital transformation models take between 3 and 4 years to achieve satisfactory results.

**Keywords:** Digital Transformation, Big Data, Digital Canvas, SMEs, Profitability.

3 rd LACCEI International Multiconference on Entrepreneurship, Innovation and Regional Development - LEIRD 2023  
Virtual Edition, December 4 – 6, 2023

[h https://dx.doi.org/10.18687/LEIRD2023.11.430](https://dx.doi.org/10.18687/LEIRD2023.11.430)



# Production process improvement model to increase productivity by applying Lean Six Sigma methodologies and Lean tools in a Peruvian pastry MSE



**Authors:** Alexandra Ludeña Ramos , Katherine Vargas Cermeño, Cynthia Carola Elias Giordano, Carlos Luis Torres Sifuentes and Carlos Cespedes.

**Abstract:** In Peru there were 2,608,343 micro-enterprises, which represents 95.3%, 3.8% correspond to small companies and 0.6% to large and medium-sized companies and 0.3% to the administration public. During the Covid-19 pandemic, several companies were affected, causing them to declare bankruptcy or change their business model to continue operating. Peru's GDP decreased by -61.4% in the accommodation and restaurant sector and by -9.9% in the manufacturing sector, due to the fact that people had to enter a state of quarantine or isolation to avoid contagion . Therefore, currently the economy of Peru continues on the path of recovery, in the different economic activities. For this reason, in order to help microenterprises continue to produce and improve their processes, this research is focused on productivity within the cake production process of a microenterprise and its purpose is to propose a management model that allows increasing productivity using the Six Sigma and making use of various lean tools such as 5S, VSM, Poka Yoke, KPIs and techniques such as the 5 whys. On the other hand, some of the problems that a microenterprise currently faces are unsatisfied demand, lack of documentation in the production process, waste of inputs and poor distribution of work areas.

**Keywords:** ; Six Sigma; 5S method; MSE; pastry .

3 rd LACCEI International Multiconference on Entrepreneurship, Innovation and Regional Development - LEIRD 2023 Virtual Edition, December 4 – 6, 2023

<https://dx.doi.org/10.18687/LEIRD2023.1.1.510>



# Current research trends on the use of artificial intelligence in human capital management in business organizations during the years 2018 and 2023



**Authors:** Verónica Patricia Chávez De la Vega, Diego Rojas Rivera, Allison Sharon Castro Ventura,, Victor Alberto Mendieta Flores, Leonardo Luis Paredes Delgado, Omar Alexis Larios Soldevilla, y Julio Ricardo Moscoso Cuaresma.

**Abstract:** The objective of the research is to analyze and report the relationship and impact of the use of artificial intelligence in the management of human capital in organizations in the period 2018- 2023. Artificial intelligence is in a process of evolution and is constantly present in today's world. Artificial intelligence (AI) is defined as the execution and performance of tasks with a quality structure, which would also be performed by a human. With the results obtained about artificial intelligence, it gives us a clearer picture of the impact of the use of AI in companies in which it can replace and/or enhance human capital. However, based on the investigation, it is stated that the data obtained in the face of a possible replacement of the AI in the functions and tasks carried out by the human being are replaced in their entirety, it could be said that it will not materialize as such, but it will. improvements will be obtained in the efficiency of the tasks and objectives established by the organizations. Likewise, today's world shows great interest in the application of AI, due to the great support that this will mean. Also, in the research it provides data which can be justified in the short or long term, highlighting that AI are sciences that seek to create highly capable technology for an innovative world.

**Keywords:** artificial intelligence, human capital, organizations, replace, enhance.

3 rd LACCEI International Multiconference on Entrepreneurship, Innovation and Regional Development - LEIRD 2023 Virtual Edition, December 4 – 6, 2023

<https://dx.doi.org/10.18687/LEIRD2023.11.552>



# Proposal for the implementation of a safety plan integrating the Deming cycle to minimize scaffolding accidents at height in a multifamily building



**Authors:** A. E. A. Palomino, K. R. M. Paima and H. R. Castañeda

**Abstract:** The article below presents the application of a safety plan based on the Deming cycle, also known as the PDCA (Plan, Do, Check, Act) cycle, the objective of the research is to minimize scaffolding fall from height accidents in the construction industry workplace. This methodology is effective in improving the quality and productivity of various processes through a continuous improvement approach. The application will be carried out through a series of surveys of workers in a construction company. The implementation process begins with a planning phase in which goals and objectives to reduce scaffolding accidents are defined. The next phase is Doing, in which the designed safety plan is put into practice. Safety measures for scaffolding, personnel training, etc. are implemented. In the third phase of verification, the results of the measures adopted are evaluated, analyzing the data collected in the previous phase to check whether the proposed objectives have been achieved. Finally, in the action phase, measures are adopted on the basis of the results and analysis of the verification phase. If the objectives have been achieved, the measures are implemented on an ongoing basis. If not, areas for improvement are identified and a new action plan is developed to address them. The cycle is continuously repeated and lessons learned are applied in each iteration. Consistent and systematic application of the Deming cycle leads to a gradual improvement in scaffolding safety, thereby reducing the number of accidents caused by falls and contributing to a safer working environment.

**Keywords:** Training ;Surveys; Productivity; Systematics; Phase measurement; Safety; Planning; Deming's

2023 Congreso Internacional de Innovación y Tendencias en Ingeniería (CONIITI), Bogotá, Colombia, 2023, pp. 1-6

<https://doi.org/10.1109/CONIITI61170.2023.10324183>





# Model for Recognition of Personal Protective Equipment in Construction Applying YOLO-v5 and YOLO-v7



**Authors:** Manuel Rios Alvarez; Cesar Quevedo Vega; Lenis Wong

**Abstract:** Due to the nature of activities carried out during a construction, companies find it necessary to establish controls to avoid accidents caused by the lack of personal safety equipment. However, this process often involves manual supervision carried out by a specific staff. Due to this, there is no efficient control, nor constant monitoring to prevent this type of accident. For this reason, a model is proposed that recognizes the use of personal protective equipment in construction through 2 deep learning models: YOLO-v5 and YOLO-v7. Four stages were carried out: (i) data collection, (ii) data processing, (iii) training and (iv) evaluation of results. A dataset of 743 images composed of 6 classes was used: boots, glasses, gloves, helmet, person, and safety vest. The results show that the Yolo v7 model obtains a 0.873, while Yolo v5 obtains a 0.796. These values represent the combination of precision and recall in mAP@0.5, therefore v7 was more optimal than Yolo v5. Additionally, the study shows which is the recognition pattern for both algorithms, this pattern helps us to reinforce the detection of objects through training.

**Keywords:** Convolutional Neural Network, Personal Protective Equipment, Deep learning, YOLO-v5, YOLO-v7.

2023 International Conference on Electrical, Computer and Energy Technologies (ICECET), Cape Town, South Africa, 2023, pp. 1-6

<https://doi.org/10.1109/ICECET58911.2023.10389215>





# Association between supplementation with vitamin A, iron and micronutrients with adequate psychomotor development in children from 9 to 36 months in Peru

**Authors:** Chaponan-Lavalle, Andres; Randich, Karla Hernandez; Araujo-Castillo, Roger V.

**Abstract: Background:** Worldwide, it is estimated that 52.9 million children <5 years of age experience delayed psychomotor development, which is associated with multiple factors. Our primary objective is to evaluate whether there is an association between supplementation with Vitamin A, Iron, and Micronutrients and Adequate Psychomotor Development in children aged 9–36 months at the national level in Peru. **Methods:** The study was an observational, analytical, cross-sectional study based on the secondary analysis of the Demographic and Family Health Survey databases from 2018 to 2020. The independent variables include the consumption of Vitamin A, Iron, and Micronutrients. The dependent variables encompass Motor Development in children aged 9–18 months, Psychological Development in children aged 9–18 months, and Psychological Development in children aged 19–36 months. **Results:** The study included a total of 24 838 participants. In the adjusted regression model, the factors associated with adequate motor development between 9 and 18 months of age were: region of residence, overcrowding, and exclusive breastfeeding. For adequate cognitive development between



# Association between supplementation with vitamin A, iron and micronutrients with adequate psychomotor development in children from 9 to 36 months in Peru



9 and 18 months of age, the associated factors were: vitamin A consumption, mother's education, child sex, delivery complications, and complete vaccinations. Regarding adequate psychological development in children aged 19–36 months, the associated factors were: mother's education, maternal employment, child sex, and birth weight. Conclusions: There was no association found between nutritional supplementation and adequate development, except for the relationship between Vitamin A consumption and adequate psychological development in children aged 9–18 months. Therefore, further research, such as cohort studies and clinical trials, is suggested to corroborate this association.

**Keywords:** Vitamin A; Micronutrients

Available online 3 November 2023 2213-3984/© 2023 The Author(s). Published by Elsevier B.V. on behalf of INDIACLEN. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>)

<https://doi.org/10.1016/j.cegh.2023.101456>



# Model to increase the productivity of the logistics processes of an SME that markets construction products by applying Lean



**Authors:** Lara Dávila, Anthony Brian; Pedroza Allauca, Marjorie Briyit; Arambarri, Jon; Giordano, Cynthia Elias; García, José Antonio Rojas

**Abstract:** In Peru, SMEs represent 95% of established companies, which contributed to 47.7% of the economically active population, 21% of the GDP in 2022 and 99% of formal employment; However, despite the importance of this type of company, informality grew from 70% prior to the COVID-19 pandemic to 85% in 2022; Within this type of company are the so-called hardware stores, of which there are more than 18,000 nationwide, generating more than 55,000 jobs. This sector grew 128% prior to the Covid-19 pandemic. However, the mandatory closure of commercial activity due to the pandemic contracted its growth; One of the strategies used by hardware stores to recover their growth has been based on the use of digitalization of some of their processes, which has increased their sales and profitability significantly, however, there are several challenges to face, among which are excessive inventory costs, the lack of structured processes, the use of technology to promote this business in the era of electronic commerce and development of personnel capa-



# Model to increase the productivity of the logistics processes of an SME that markets construction products by applying Lean



bilities that allow us to face an inflationary context and loss of purchasing power of Peruvian consumers. Therefore, the objective of this research is to contribute to the innovation of the logistics processes of hardware stores with the aim of increasing their productivity and profitability through the application of Lean Six Sigma, Digital Transformation and Activity Based Costing (ABC) methodologies.) in post Covid-19 times. © 2023 Latin American and Caribbean Consortium of Engineering Institutions. All rights reserved.

**Keywords:** Activity Based Costing; Digital Transformation; hardware SME; Lean Six Sigma; Productivity

3rd LACCEI International Multiconference on Entrepreneurship, Innovation and Regional Development, LEIRD 2023, Virtual, Online, 2023, Article number 104.

<https://doi.org/10.18687/LEIRD2023.1.1.104>





# Methodology to increase productivity in a metal-mechanical Tee production company using Lean Manufacturing, Systematic Layout Planning and TOPSIS



**Authors:** Cairo Tineo, F.A.| Condori Dávila, M.G.| García, J.A.R.

**Abstract:** The manufacturing sector is one of the main engines of the Peruvian economy, this sector in 2022 will represent 11.7% of the Gross Domestic Product (GDP) and within this sector is the manufacturing subsector of various metallic materials, which It contributes an average of 0.6% to the national GDP, this value being constant in recent years. This sector is of utmost importance due to the various products it generates: machinery, equipment, facilities and supplies that are used in the various industrial sectors: construction, transportation, electricity, fishing and its main supplier, mining. In this context we find mypes, which, although they represent only 9.6% of the total number of Peruvian companies, are a critical group due to their high employability and low productivity which is affected, among others, by the following factors: a) disarticulation business, b) inappropriate use of technology, c) poor operational capabilities, d) limited management capabilities, e) poor planning of operations. Therefore, one of the main needs of this subsector is to have a management model



# Methodology to increase productivity in a metal-mechanical Tee production company using Lean Manufacturing, Systematic Layout Planning and TOPSIS



that allows improving the productivity of companies in the short term using appropriate management tools; Therefore, the objective of this research is to contribute to the innovation of production processes and plant distribution with the aim of increasing the productivity and profitability of this type of companies through the application of Lean Manufacturing, Systematic Layout methodologies. Planning and Topsis.

**Keywords:** Productivity, mype, lean manufacturing, Systematic Layout Planning, Topsis

3 rd LACCEI International Multiconference on Entrepreneurship, Innovation and Regional Development - LEIRD 2023  
Virtual Edition, December 4 – 6, 2023

<https://dx.doi.org/10.18687/LEIRD2023.11.102>



# Management model to improve the dispatch compliance of a textile SME using Lean Manufacturing, Systematic Layout Planning and Digital Transformation methodologies in the era of nearshoring



**Authors:** López Aponte, K.A. | Valdivieso Yucra, L. | Arambarri, J. | Giordano, C.E. | García, J.A.R.

**Abstract:** The manufacturing sector is one of the main engines of the Peruvian economy, and within this sector is the textile sector, which contributes 2% to the national GDP. This sector has been growing in recent years and during the first Nine months of 2022 generated a growth of 24% compared to the same period of the previous year; However, despite its growth, this sector is made up mostly of SMEs, which constitute 96.2% of the total number of companies and whose informality is around 80%. Additionally, this type of company has a scarce culture of innovation and financing problems, which makes it difficult to take advantage of the advantages that nearshoring is generating by generating the opportunity to increase sales in the short term by displacing the main producers in Asia who supplied the North American market with closer suppliers, among them which is located in Peru, which is recognized for the quality of its textiles, therefore, the objective of this research is to contribute to the innovation of the order preparation processes of a textile company with the objective of increasing productivity and profitability. of this type of companies through the application of Lean Manufacturing, Systematic Layout Planning and Digital Transformation methodologies.

**Keywords:** Lean manufacturing, Systematic Layout Planning, Digital Transformation, SMEs, textile industry.

3 rd LACCEI International Multiconference on Entrepreneurship, Innovation and Regional Development - LEIRD 2023 Virtual Edition, December 4 – 6, 2023

<https://dx.doi.org/10.18687/LEIRD2023.1.1.156>



# A systematic review of the impact of smart ports in relation to SDG 9 in the period 2015-2023



**Authors:** Veliz, L.A.T.| Fernandez, L.Z.C.| Condori, G.U.| Shinzato, L.H.G.| Fernandez, P.A.Q.| Holgado, E.M.V.| Gómez, J.E.S.

**Abstract:** In recent years, the need for innovative and sustainable infrastructures has increased in order to comply with the 2030 Agenda for Sustainable Development. In that sense, due to the large flow of goods worldwide and the impact produced by foreign trade operations, smart ports have positioned themselves as one of the catalysts of development and economic growth of multiple countries, as they support trade flows and an ecosystem of related activities. In addition, the digitization of ports produces a huge amount of information that makes them more profitable, efficient and sustainable. As such, smart ports, through the implementation of technologies such as the Internet of Things, blockchain and artificial intelligence, manage to improve the efficiency of port operations. In this regard, this research aims to determine the current research results of the development of smart ports for the achievement of SDG9 globally for the period 2015-2023. The methodology is the systematic review and will be developed under a qualitative and bibliographic approach, for which academic repositories such as Scopus and WoS will be reviewed and analyzed. Within the discussion, the results obtained in relation to the stated objectives are addressed, these suggest that smart ports allow sustainable economic growth, optimize human welfare and have a positive impact on sustainable development. Finally, the conclusions section highlights the implications found after the literature review and the results, as well as recommendations regarding the exploration of this topic in future research.

**Keywords:** Smart ports, sustainable development goals, port innovation, infrastructure, digitalization.

3 rd LACCEI International Multiconference on Entrepreneurship, Innovation and Regional Development - LEIRD 2023 Virtual Edition, December 4 – 6, 2023

<https://dx.doi.org/10.18687/LEIRD2023.1.1.369>



# Improvement model to increase the efficiency of the sewing area in a textile SME by applying SMED, 5S and Standardized Work - A Peruvian case study



**Authors:** Torres-Mestanza, M.| Guerrero-López, N.| Sáenz-Moron, M.  
SDG 8| SDG 9

**Abstract:** The textile industry in Peru is one of the most representative in terms of its contribution to GDP; however, in the last 10 years the industry has suffered a 1.5% annual drop in its share of GDP. This is due to the fact that the sector suffers from a series of deficiencies such as low productive efficiency, which is 70.2%. Faced with this problem, some authors opted for the application of some tools such as SMED, SW and 5s to counteract it. But according to the literature review, there is a lack of knowledge of the application of the mentioned tools in textile SMEs, since SMED and 5s are mostly applied in large companies, while SW has little history of applicability despite being a powerful tool that achieves positive changes in production. Therefore, in order to provide a solution to the problem studied, it is necessary to apply the aforementioned tools. This article proposes an improvement model that aims to increase the efficiency of a textile SME through the applicability of tools such as 5S, SMED and SW. The effectiveness of the model was validated



# Improvement model to increase the efficiency of the sewing area in a textile SME by applying SMED, 5S and Standardized Work - A Peruvian case study



with the use of the simulation developed in arena software, obtaining as main result that the efficiency of the sewing area in the textile SME increased from 64.71% to 80%. This leads to the conclusion that the proposal manages to improve the company's productivity, which allows it to generate higher income by making efficient use of its resources.

**Keywords:** Lean Manufacturing; Time unproductive times; Standardized work; sewing; efficiency

21st LACCEI International Multi-Conference for Engineering, Education, and Technology: "Leadership in Education and Innovation in Engineering in the Framework of Global Transformations: Integration and Alliances for Integral Development", Hybrid Event, Buenos Aires - ARGENTINA, July 17 - 21, 2023.

<https://dx.doi.org/10.18687/LACCEI2023.11.1051>

