# PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ ESCUELA DE POSGRADO



# **Consulting Report – CICLO**

# TESIS PARA OBTENER EL GRADO DE MAESTRA EN ADMINISTRACIÓN DE NEGOCIOS OTORGADO POR LA PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ

#### PRESENTADA POR

Laura Federschmid, PASAPORTE: U6477161 Rachel Anfrea Nashman, PASAPORTE: HP711911

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#### PRESENTADA POR

Renato Manuel Chang Chumpitaz, DNI: 72632454

#### **ASESOR**

Sandro Alberto Sánchez Paredes, DNI: 09542193 ORCID: 0000-0002-6155-8556

#### **JURADO**

Fernández Concha, Rafael Alejandro, Presidente Igor Leopoldo Loza Geldres, Jurado Sandro Alberto Sánchez Paredes, Asesor

Surco, September 2023

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Sánchez Paredes, Sandro Alberto	
DNI: 09542193	Firma
ORCID: 0000-0002-6155-8556	
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# **Dedication**

For our beloved families, whose constant support has been our rocks. Without their unconditional assistance, our journey in this Master's Program would not have been possible. And for all those curious minds out there, we aim to demonstrate that with a lot of determination, great projects can be accomplished.

Renato Chang Chumpitaz

Laura Federschmid

Rachel Nashman



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Renato Chang Chumpitaz

Laura Federschmid

Rachel Nashman

#### **Executive Summary**

CICLO is a sustainable construction company founded in 2015, with operations commencing in 2020, focusing on the production of eco pavers made from recycled construction material. The company operates in two main lines of business: (1) collecting construction waste, and (2) converting the collected material into construction material.

Despite the significant environmental benefits and market potential of its operations, CICLO faces a critical challenge of insufficient funding which hampers its growth and scalability. To address this, the company aims to develop a comprehensive business plan to present to potential investors to secure the necessary funding.

The business plan is structured into three main categories: market analysis, financial information, and growth strategy. The financial information will include detailed financial statements, projections, and a break-even analysis to provide a clear picture of the company's financial health and future prospects. The market analysis will provide an overview of the current market scenario, including the demand for sustainable construction materials, competitor analysis, and the potential market share that CICLO can capture. The growth strategy will outline the company's plan for scaling its operations, expanding its product line, and capturing a larger market share.

Qualitative and quantitative data will be utilized to analyze the company thoroughly and present a compelling case for investment. The analysis will not only demonstrate the financial viability of CICLO but also highlight the environmental impact of its operations, aligning with the growing trend of impact investing. Implementing recommendations for the company moving forward will also be included, ensuring the long-term success and sustainability of the business. By securing the necessary funding, CICLO aims to scale its operations, contribute to a more sustainable construction industry, and provide a lucrative return on investment for its stakeholders. The business plan will serve as a roadmap for

achieving these objectives and a tool for convincing potential investors of the compelling opportunity that CICLO represents.



#### **Abstract**

El proyecto de Eco Adoquines de la empresa CICLO es una ambiciosa iniciativa que busca aumentar su capacidad y participación en el mercado a través de la inversión en activos fijos y capital de trabajo. Para respaldar esta estrategia, se han realizado exhaustivos estudios cualitativos y cuantitativos que revelan un Return on Invested Capital (ROIC) actual del 10.57%. El plan de negocios se enfoca en el análisis de mercado, la estrategia de negocios y el pronóstico financiero para impulsar las ventas y mejorar la posición de Ciclo en el mercado.

Con el objetivo de aumentar su participación de mercado del 0.35% actual al 5% para finales de 2027, Ciclo planea la contratación de tres especialistas en finanzas, operaciones y marketing. Estos expertos serán clave para ordenar las finanzas, desarrollar estrategias de gestión de recursos y marketing, y mejorar la competitividad de la empresa en el mercado. Se proyecta que el proyecto de Eco Adoquines generará un Valor Neto Actual de S/ 412,250.88, una Tasa Interna de Retorno del 52%, y un retorno de inversión en 2 años, 3 meses y 4 días, lo que demuestra el atractivo potencial de inversión en esta iniciativa.

En resumen, CICLO se embarca en un proyecto estratégico para expandir su presencia en el mercado a través de Eco Adoquines. Con un enfoque claro en el análisis, la estrategia y la inversión en recursos clave, la empresa busca un crecimiento sostenible y rentable, respaldado por sólidos indicadores financieros y un retorno de inversión atractivo.

# **Table of Contents**

List of Table	xiii
Chapter I: General Situation of the Organization	1
1.1 Presentation of the Organization	1
1.1.1 Main Activities	2
1.1.2 Value Proposition	3
1.1.3 Awards	3
1.1.4 Traction and Validation	3
1.1.5 Customers	4
1.1.6 Contracts and Alliances	4
1.2 Industry Analysis: Porter's Five Forces	5
1.2.1 Threat of new Entrants (low)	5
1.2.2 Power of Suppliers (Moderate)	5
1.2.3 Power of Customers (Moderate)	5
1.2.4 Threat of Substitutes (High)	6
1.2.5 Competition in the Industry (low)	6
1.3 External Analysis: PESTE Including Opportunities and Threats	7
1.3.1 Political, Governmental and Legal Factors (P)	8
1.3.2 Economic Factors (E)	9
1.3.3 Social Factors (S)	10
1.3.4 Technological Factors (T)	11
1.3.5 Environmental Factors (E)	11
1.3.6 Opportunities and Threats	13
1.4 Internal Analysis: AMOFHIT Including Strengths and Weaknesses	13
1.4.1 Administration and Management Analysis (A)	14

1.4.2 Marketing and Sales Analysis (M)	15
1.4.3 Operations and Logistics Analysis (O)	16
1.4.4 Finance and Accounting Analysis (F)	17
1.4.5 Human Resources Analysis (H)	17
1.4.6 Information and Communication Analysis (I)	18
1.4.7 Technology, Research and Development Analysis (T)	18
1.4.8 Strengths and Weaknesses	18
1.5 Conclusions	19
Chapter II: Key Problem	21
2.1 Identified Problems	
2.2 Key Problem	22
2.2.1 Substance of the Problem	22
2.2.2 Location of the Problem	22
2.2.3 Ownership of the Problem	22
2.2.4 Magnitude of the Problem	22
2.2.5 Time Perspective of the Problem	23
2.3 Conclusions	23
Chapter III: Literature Review	25
3.1 Literature Mapping	25
3.2 Literature Review	27
3.2.1 Financial Forecasting	27
3.2.2 Market Analysis	29
3.2.3 Growth Strategy	31
3.2.4 Networking and Relationships	32
3.2.5 Efficient Pitching	32

3.2.6 Fundings	33
Chapter IV: Qualitative and Quantitative Analysis	35
4.1 Qualitative Analysis	35
4.1.1 Requirements of Investors Towards Companies Seeking Capital	35
4.1.2 Interview With a Relevant Expert	38
4.2 Quantitative Analysis	39
4.2.1. Sales	39
4.2.2 Costs	40
4.2.3 Expenses	42
4.2.4 EBITDA	42
4.2.5 ROIC	43
4.2.6 WACC	44
4.3 Conclusions	45
Chapter V: Root-Cause Analysis of the Problem	47
5.1 Identified Causes	47
5.1.1 Strategic Planning & Business Development	48
5.1.2 Financial Management	49
5.1.3 Sales and Distribution	50
5.1.4 External Factors	51
5.2 Main Causes of the Problem	51
Chapter VI: Assessed Solution Alternatives	56
6.1 Alternatives to Solve the Problem	56
6.1.1 Networking with More Businesses/People to Expand the Business	56
6.1.2 Developing a Cohesive Business Plan	56
6.1.3 Developing a Better Pitch to Obtain More Clients and get More Sales	57

6.2 Assessment of Alternatives	57
6.2.1 Networking with More Businesses/People (Average Rating: 5)	58
6.2.2 Developing a Cohesive Business Plan (Average Rating: 8.17)	59
6.2.3 Developing a More Compelling Pitch (Average Rating 6.33)	60
6.3 Definition of the Chosen Solution	60
6.3.1 Financial Forecasting	61
6.3.2 Market Analysis	61
6.3.3 Growth Strategy	62
Chapter VII: Proposed Solution: Business Plan	63
7.1 Financial Forecasting	63
7.2 Market Analysis	68
7.2.1 Market Share	69
7.2.2 Market Prices	70
7.3 Growth Strategy	70
7.3.1 Enhancing Operations Through Employee Recruitment	71
7.3.2 Diversifying and Expanding Through Ongoing Contract Work, Eco-Company	
Collaborations, and Strategic Partnerships	74
7.3.3 Expansion of Sales in the Real Estate Sector	76
7.3.4 Retail Sales Growth	78
7.3.5 Future Demand Forecast	79
7.4 Conclusion.	79
Chapter VIII: Implementation Plan & Key Success Factors	81
8.1 Activities	81
8.2 Implementation: Gantt Chart	84
8.2.1 Project EBIT Calculation	86

8.2.2 Net Working Capital (NWC)	86
8.2.3 Salaries of the new Workers	87
8.2.4 Projected Cash Flow	87
8.2.5 Net Present Value and Internal of Return Results	88
8.2.6 Investment Proposal Payback	89
8.3 Key Success Factors	89
8.3.1 Enablers	89
8.3.2 Risks	92
Chapter IX: Expected Outcomes	96
9.1 Short-Term Outcomes	97
9.2 Medium-Term Outcomes	99
9.3 Long-Term Outcomes	101
Chapter X: Conclusions and Recommendations	104
10.1 Conclusions	104
10.2 Recommendations	105
References	108

# **List of Table**

Table 1 Overview of opportunities and threats	13
Table 2 Overview of strengths and weaknesses of CICLO	18
Table 3 Gross profit margin	
Table 4 EBITDA Margin	43
Table 5 ROIC	44
Table 6 WACC structure	44
Table 7 Requirements from different investor entities	45
Table 8 Ranking Main Causes of the Problem	52
Table 9 Assessment of Proposed Alternatives	58
Table 10 Sales of pavers 2023	
Table 11 Sale of pavers from 2021 to 2023	64
Table 12 Sales forecast	
Table 13 Construction Sector Growth Forecast (GDP Peru)	67
Table 14 Gross Profit Forecast	67
Table 15 Current Customer Base	
Table 16 Market price of pavers	70
Table 17 Forecast with growth strategy	79
Table 18 Project EBIT Calculation	86
Table 19 Net Working Capital Forecast	87
Table 20 Salaries of the new workers	87
Table 21 Projected cash flow	88
Table 22 Net Present Value and Internal of Return Results	89
Table 23 Investment proposal payback	
Table 24 Enablers based on the Strengths of CICLO and the suggested Solution	90
Table 25 Risks based on the Weaknesses of CICLO and the suggested Solution	92
Table 26 Short-Term Outcomes, Medium-Term Outcomes and Long-Term Outcomes	

# **List of Figures**

Figure 1 CICLO's 5 Forces	7
Figure 2 <i>Literature Map</i>	26
Figure 3 Sales per year (PEN)	40
Figure 4 Costs per year (PEN)	
Figure 5 Administrative Expenses (PEN)	
Figure 6 EBITDA margin	
Figure 7 Fishbone Diagram Analysis	
Figure 8 Seasonal sales	
Figure 9 Non-seasonal sales	
Figure 10 Market share of concrete producing companies (Peru)	69
Figure 11 Candidate Persona for CICLO's new Production Assistant	73
Figure 12 Candidate Persona for CICLO's new Marketing Employee	73
Figure 13 Candidate Persona for CICLO's new Finance Employee	74
Figure 14 CICLO's most important clients in the real estate industry	77
Figure 15 Condominium Montemar Project (Google maps, 2023)	78
Figure 16 Gantt Chart - CICLO	85



#### **Chapter I: General Situation of the Organization**

This chapter focuses on providing an overview of the company CICLO this project is about. Besides a presentation, internal and external analysis are conducted. Furthermore, general insights are given in this initial chapter.

#### 1.1 Presentation of the Organization

CICLO S.A.C. is the first company in Peru to convert Construction and Demolition Waste (CDW) into new eco-friendly materials. CICLO was founded in 2015 by the siblings Roger and Marjorie Mori. The same year they won 45K USD to start their operations and create the prototype of an eco-paver. In 2016 they developed the pilot plant and the business. In 2019 they obtained the operating license and in 2020 they started operations, resulting in currently three years of experience in the sector. The entire recycling process is carried out at CICLO's plant in Cieneguilla, Lima, which has the necessary licenses it needs to be authorized to receive and recycle CDW. Moreover, the plant is equipped for a production of eco-friendly construction materials which have the same quality as conventionally manufactured materials (R. Mori, personal communication, July 19, 2023).

CICLO's mission is "To provide the construction market with sustainable and efficient solutions in waste management and the supply of eco-materials" (CICLO, n.d., Nosotros section). For their vision CICLO defines "To be a leading company in the innovation of eco-friendly services and products for the construction sector, reducing its negative impact on the environment" (CICLO, n.d., Nosotros section). The targets the company follows are (1) to reduce the disposal of CDW in public areas and natural spaces such as beaches and rivers, (2) to reduce the exploitation of natural resources for the manufacture of conventional construction materials, (3) to be a major player in the development of sustainable cities, (4) to apply, promote, and disseminate the principles of the circular economy in the construction

sector and (5) to generate inclusive work and train professionals in the recycling and management of CDW (CICLO, n.d.).

CICLO is committed to different Sustainable Development Goals (SDG). In specific, it aligns its operations to 4 goals. These are, firstly, SDG 9 regarding industry, innovation, and infrastructure, SDG 11 regarding sustainable cities and communities, SDG 12 which is about protection and responsible consumption and SDG 13 which focuses on climate action (United Nations, 2015). The core objective and purpose of CICLO revolves around securing financial resources to bolster its fixed assets and working capital. This strategic initiative is aimed at facilitating an expansion in production capacity, enabling the company to maintain its pivotal role as a leader in utilizing recycled materials sourced from demolition and construction waste as its primary input (R. Mori, personal communication, July 19, 2023).

#### 1.1.1 Main Activities

CICLO's operations are built on two different activities. First, they are offering a management and recycling service. CICLO collects demolition and construction waste then transports to the plant to recycle it and transform it into eco materials for construction. The plant has Environmental Instruments approved for the entry and recycling of demolition and construction waste. Second, CICLO produces eco-products and sells them. CICLO's Eco materials replace 100% of the natural aggregate content with recycled aggregate, product of CDW recycling performed in the main plant, and have been developed to comply with the physical-mechanical properties of the technical regulations. The products offered by the company are: Eco pavers, king kong 18 hollow bricks, blocks and recycled aggregates (R. Mori, personal communication, July 19, 2023). CICLO is located in Cieneguilla with a plant size of 3000 m², with five workers in operations. CICLO operates an 8-hour shift from Monday to Friday and half shift on Saturdays with a plant capacity to produce 3000 pavers per day and treat one ton of CDW per day.

#### 1.1.2 Value Proposition

The Value proposition of CICLO results from their two different business lines. First, there is the management of CDW. What differentiates CICLO from other operators is that it has a CDW treatment plant, allowing its clients to reduce the environmental impact of their projects and operations. Second, the production and sales of eco materials add value. Unlike precast concrete materials, CICLO's eco materials are made from 100% recycled aggregates. CICLO's main product is the Eco Paving Block, which meets the mandatory technical requirements and has the same market price as a conventional paving block. Moreover, it is the only paver manufactured with recycled material in Latin America to have the EPD (Environmental Product Declaration) eco-label (R. Mori, personal communication, July 19, 2023).

### 1.1.3 Awards

CICLO has received numerous prestigious accolades, highlighting the company's commitment to environmentally conscious practices and sustainable industry advancement (CICLO, n.d.). Notable among these awards are the 'Ideas Audaces' award from Concytec in 2016, the 'Start Up Peru 4G' recognition by Innovate Perú in the same year, and the distinguished 'Premio Latinoamerica Verde' in Guayaquil in 2017. Additionally, their dedication to innovation and sustainability has been consistently recognized, including further acknowledgments from Innovate Perú in 2021 (R. Mori, personal communication, July 19, 2023).

### 1.1.4 Traction and Validation

In 2020 CICLO launched the operations on the market with a Minimum Viable Product "MVP" that has been improving every year until the publication of this thesis without the injection of large capital. In all this time they have made different achievements to validate their business model, which is why the founders of CICLO decided to take the next step to

scale the business (CICLO, n.d.). With a focus on fostering strong B2B relationships, CICLO has successfully cultivated a client base exceeding 100 satisfied customers. Moreover, the company's commitment to sustainability and environmental responsibility is evident through its substantial impact: a staggering 57,000 tons of construction and demolition waste have been effectively managed by CICLO by the end of 2022, leading to a commendable reduction of 1,400 tons of CO2 emissions. CICLO has increased 33% in sales by the year 2022 with a remarkable turnover of 210,000 USD in the same year (R. Mori, personal communication, July 19, 2023).

#### 1.1.5 Customers

CICLO's clients are companies that generate CDW and consume building materials. They are generally large companies that have two clear needs. On the one hand, they want to comply with environmental regulations, and on the other hand, they want to raise their sustainability standards. 36% percent of CICLOS's clients are construction and real estate companies, and 64% are companies in other areas such as energy, engineering, etc. Some examples of important clients are Enel, Cobra, Flesan, Besco, etc. (CICLO's Presentation, 2023).

#### 1.1.6 Contracts and Alliances

CICLO has secured medium-term contracts for its CDW Management service, providing a reliable source of income for the company. In addition, CICLO has entered a contract with SODIMAC, Peru's largest mass distributor of construction materials, to sell eco-materials in their physical stores and through their Marketplace. This agreement prominently includes the distribution of CICLO's flagship product, the ECO paver (CICLO's Presentation, 2023).

#### 1.2 Industry Analysis: Porter's Five Forces

In this chapter, the five elements of Porter's Forces are analyzed and graphically demonstrated in Figure 1.

#### 1.2.1 Threat of new Entrants (low)

CICLO is the first company in Peru to convert CDW into environmentally friendly materials. In addition, they have three years of experience in the sector, which gives them a significant advantage in knowledge, processes and industry relationships. Establishing a CDW treatment plant and obtaining the necessary licenses requires significant upfront investments, which could deter new competitors. The industry is subject to environmental regulations and requires specific permits and licenses, which makes it difficult for new players to enter. CICLO has already secured medium-term contracts for CDW management services and a contract with SODIMAC, a major distributor of construction materials. These established relationships may create barriers to new competitors attempting to secure similar partnerships (CICLO's Presentation, 2023).

#### 1.2.2 Power of Suppliers (Moderate)

CDW, a waste generated by construction and demolition activities, provides an ample supply of raw material for recycling due to its unrestricted availability. However, CICLO faces a logistical challenge as it does not have its own trucks or site loaders. Consequently, the company relies on subcontracted services to manage these essential aspects of its operations (CICLO's Presentation, 2023).

#### 1.2.3 Power of Customers (Moderate)

Customers are already committed to CICLO's green materials and services. This means switching to another supplier can involve considerable cost and effort. CICLO's green materials have a unique selling point, as they are made from 100% recycled aggregates. They also carry the EPD eco-label, which gives them a competitive advantage. This could reduce

the bargaining power of customers wishing to adopt more sustainable practices. Additionally, CICLO has a strategic ally with, for instance, SODIMAC which creates a large window to reach more customers. However, the payment contracts and profit margins obtained are not as large as when done through the direct sales channel (CICLO's Presentation, 2023).

#### 1.2.4 Threat of Substitutes (High)

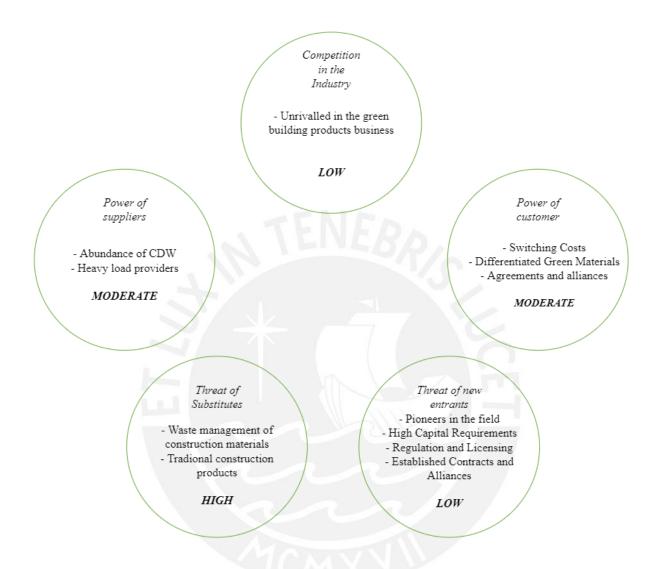
There are a few alternatives to effectively manage and recycle CDW. Although some traditional building materials can be used in place of environmentally friendly materials, the growing interest in sustainability and environmental concerns in the construction sector increases the value of environmentally friendly materials such as those offered by CICLO. Substitutes are traditional building materials, which can be found in Peru at different prices and specifications (CICLO's Presentation, 2023).

### 1.2.5 Competition in the Industry (low)

Rivalry in the CDW recycling industry is considered to be rather low. CICLO has achieved traction and validation with over 100 B2B customers and has received several awards for its innovative practices. However, given the growing interest in sustainability in the construction industry, it is possible that other companies may try to enter the market or expand their offerings, which could lead to increased competition. Still, by being the pioneer in this niche market there is no other companies that offers the same service and product (CICLO's Presentation, 2023).

Figure 1

CICLO's 5 Forces



Note: This figure details Porter's 5 forces of CYCLE explained in the previous points.

### 1.3 External Analysis: PESTE Including Opportunities and Threats

This chapter introduces the PESTE analysis, a widely used tool in the realm of strategic management and planning. PESTE stands for Political and Legal, Economic, Social, Technological, and Environmental factors. The analysis offers a systematic framework to assess and understand the external influences that affect an organization, industry, or market. By evaluating the multifaceted dimensions of the macro-environment, this analytical tool facilitates the identification of opportunities and threats and empowers informed decision-

making (Aguilar, 1967). Through an in-depth exploration of each factor's impact, this chapter aims to enlighten the reader about the various external aspects, especially in the sustainable construction industry in Peru, which affect small social companies operating in this area, such as CICLO.

#### 1.3.1 Political, Governmental and Legal Factors (P)

Since CICLO embraces two business lines which are (a) the collection of construction waste, and (b) the usage of those materials for new eco-friendly materials laws and directives about waste management, as well as eco-friendly material standards and the environmental impact assessment have to be considered (R. Mori, personal communication, July 19, 2023). Since CICLO solely operates in Lima, Peru, the focus of this analysis lays on the regulations in this area. The Ministry of Energy and Mines in Lima introduced different regulations in the past, concerning a supervised waste management in the city. For instance, in article 6 of Law No. 27314 of the General Waste Law it is stated that waste, amongst others the one from construction sites, is regulated, evaluated, supervised and sanctioned by the ministries. Moreover, according to article 7 of the Regulation of the General Waste Law, the Ministry of Housing is responsible for supervising and regulating construction sites and the waste they produce (Ministerio de Energía y Minas, 2016). However, although several regulations and directives exist, the available information is limited, and several involved stakeholders are not clear about their duties. Further, Lima does not dispose about enough resources to monitor the regulations and sanction unlawful activities. This leads to the fact that in many cases, construction waste is disposed in a wrong way or not at all (Rondinel-Oviedo, 2023). Concerning eco-friendly construction materials, in Miraflores, one of the districts in Lima, exists the ordinance to construct buildings in a more sustainable way. It is important to add that the ordinance is voluntary and that participants are awarded with a certificate (Municipalidad Distrital de Miraflores, 2021). The government in Lima is well aware of the

environmental impact of the construction industry. However, many different stakeholders are included in political and legal decisions, such as regional and local governing representatives and stakeholders from the construction sites which make the process more complicated (Rondinel-Oviedo, 2023). In addition, the political uncertainty surrounding the country's president is drawing attention to legal and policy areas other than construction waste management (Fernández-Altamirano et al., 2023). Concerning the eco-paving stones CICLO is producing, there are several requirements by law. The general conditions for pavement projects in Lima include the requirement for technical documentation with a Descriptive Report, Technical Annexes, and optional cost analysis. Field investigations involve specific techniques and a minimum of three points per road type. The investigation depth must be at least 1.50 meters below the final road level, with extensions if necessary. Laboratory tests are required for soil and aggregate materials, including moisture content, granulometry, CBR, and durability. Materials must meet gradation, abrasion, CBR, and soluble salts content requirements. Geosynthetics should adhere to relevant Peruvian or international standards (ICG, n.d.).

#### 1.3.2 Economic Factors (E)

The construction industry in Lima is growing at a high pace and is expected to continue growing in the upcoming years. Especially in Lima the increasing demand for construction projects, such as infrastructure development, commercial buildings, and residential properties is an important aspect. Concerning a switch to economic-friendly construction methods, Peruvian construction companies show interest in improving their sustainability. However the majority is still at the beginning and eco materials are still rare on the market (Fernández-Altamirano et al., 2023). The GDP development in Peru shows an increase by 2.7 percent in 2022 and an expected increase by 2.4 percent in 2023 according to the Worldbank (2023), although there are still significant differences between higher- and lower-income areas in

Lima and all of Peru. On the one hand, a higher GDP in general can also be connected to an increasing willingness to invest in more ecological constructions. However, on the other hand it has to be considered that in reality the higher-income areas of Lima still generate a significant volume of construction and demolition waste, but often transfer it to low-income districts. Therefore, the awareness about the importance of sustainable construction material alternatives and waste management and the willingness to invest into more ecofriendly options should be risen in both, higher and lower income areas (Fernández-Altamirano et al., 2023).

#### 1.3.3 Social Factors (S)

Almost one third of the entire population in Peru lives in Lima and the city continues to experience steady growth due to rapid urbanization. Different reasons like a movement from the Andes into the metropolitan areas as people seek better economic opportunities play a role in this development. The housing sector is greatly affected by those changes, as the need for appropriate housing and construction materials continues to grow. Due to the prices of those materials, especially low-income citizens take the option of informal housing into consideration. This means, although there is a need for sustainable housing in order to protect the environment and society, often the cheaper alternatives are preferred (Chan, 2017). The society of Lima faces several risks concerning environmental issues such as climate change in terms of water scarcity and increased heat. Although a part of the population of Lima might be raising more awareness of the issues and start to become more conscious about the environment, this only applies to a smaller part of the society. Furthermore, it is often the government, may it be local or regional, who is in charge of implementing strategies to fight climate change. Without proper information, the entire society will not be reached and taught about severe affects climate change and unsustainable behaviour might bring about. Even if laws for environmental consciousness are introduced, it is of upmost importance to also

follow and supervise them to be assured that changes into the right direction are made (Siña et al., 2016).

#### 1.3.4 Technological Factors (T)

Since the awareness about the need to shift to a more sustainable behaviour amongst the society is still to be improved, Lima does not yet have special technologies, e.g., for waste management, at their disposal (Siña et al., 2016). Moreover, the lack of surveillance by legal instances makes it hard to make all stakeholder understand the need for sustainable construction and housing improvements, as regulations can easily be bypassed until this point. On an international level there is several software such as SMARTWaste or BIM modelling, which are utilized to assess and manage construction waste more effectively. However, there are yet to be used in Lima (Rondinel-Oviedo, 2023). Concerning the market of ecofriendly construction materials, it can be mentioned that the market is new and unexplored in whole Peru, which makes CICLO one of the few companies operating in this niche sector in Lima (R. Mori, personal communication, July 19, 2023).

#### 1.3.5 Environmental Factors (E)

The population of Lima is confronted with several risks which are based on pollution, climate change and unsustainable activities (Siña et al., 2016). According to Rondindel-Oviedo (2023), the construction industry is responsible for one of the biggest environmental issues in Lima, which is waste management. Moreover, the Swiss company IQAir which focuses on air pollution around the world published that in country comparison, Lima and the regions around Lima are affected by the highest pollution. The Air Quality Index for different municipals and regions in and around Lima was measured 63 and 157 on July 29<sup>th</sup>, 2023. Amongst other reasons such as traffic, also the construction industry can be seen as causes for that. In general, Peru ranked 38<sup>th</sup> in a world ranking with the highest air pollution (Air Quality in Peru, 2023). The high pollution and disadvantages an unsustainable waste

management brings about are linked to the kind of materials used on construction sites. This means, the materials currently used harm the environment to a certain extent, may it be the way they are extracted and produced, or processed. Eco-friendly materials would improve the situation but are not sufficiently utilized yet (Rondindel-Oviedo, 2023). Another important aspect is the climate change, which is responsible, e.g., for an estimated temperature increase of about 0.4°C by 2030 in whole Peru or water scarcity and a population movement from the coast to cooler rural areas. Also, the construction industry has to adapt and adjust materials and construction styles in order to fulfil the changing housing needs of the population (Siña et al., 2016). Additionally, there are some certificates for environmentally sustainable activities. The LEED certification, for example, is a well-known system that promotes sustainable building practices worldwide. It rewards projects for meeting specific criteria related to energy efficiency, waste reduction, water conservation, and other green principles. The certification levels, Certified, Silver, Gold, and Platinum, depend on the number of points earned. LEED-certified buildings are not only environmentally friendly but also costeffective, providing better indoor environments for occupants and supporting global sustainability goals (U.S. Green Building Council, n.d). Moreover, there is the EDGE certificate. This certificate provides recognition for sustainable buildings, offering three levels of achievement. To become certified, projects must attain a minimum of 20% savings in water, materials, and energy using the EDGE App. The levels include EDGE Certified (20% savings), EDGE Advanced (40% on-site energy savings, acknowledged as Zero Carbon Ready), and Zero Carbon (100% renewables or offset by purchased carbon credits). Beyond the environmental benefits, EDGE certification brings international prestige, enhances project value from the design phase, and supports the global goal of zero-carbon buildings by 2050 (Edge, n.d.).

### 1.3.6 Opportunities and Threats

Based on the findings of the PESTE analysis, key opportunities and key threats can be identified. Table 1 focuses on opportunities and threats for a small company operating in the construction industry and, in detail, in the niche market of eco-friendly waste management and construction materials.

**Table 1**Overview of opportunities and threats

Opportunities	Threats
Growing construction industry in Lima	Unclear regulations and too little pressure from the government for sustainable alternatives
Increasing demand for sustainable construction methods	Economic disparities affecting construction practices
Increasing willingness to invest in more sustainable materials and waste management	Lack of specialized waste management technologies and knowledge about it
Limited competition in the eco-friendly materials and waste management market	Potential disruptions due to climate change
Fighting against severe issues such as climate change	Lack of public awareness and education about the importance of sustainable construction

# 1.4 Internal Analysis: AMOFHIT Including Strengths and Weaknesses

In this subchapter the AMOFHIT analysis is introduced. The tool is used to determine the internal factors of an organization. AMOFHIT stands for (a) Administration and Management, (b) Marketing and Sales, (c) Operations and Logistics, (d) Finance and

Accounting, (e) Human Resources, (f) Information and Communication and (g) Technology, Research and Development. By analysing all of the mentioned aspects of a company, on the one hand the factors that affect a business internally can be analysed. On the other hand, also the strengths and weaknesses of a can be identified (Análisis Interno, n.d.). The purpose of this subchapter is to inform the reader about exploring each of the internal factors that determine the operations of CICLO.

#### 1.4.1 Administration and Management Analysis (A)

The administration and management of CICLO is centralized in the company's headquarter in Lima. This is because CICLO only operates in Lima and has no subsidiaries on a national or international level. Responsible for the administration and management of the business is mainly one of the two founders of CILCO, Roger Mori. He is the General Manager of CICLO who manages the company according to its vision and mission. The General Manager is in charge of supervising the overall business, communicate with important stakeholders, representing the company and doing sales. The second founder, Marjorie Mori is responsible for supervising and controlling the operations. Both of the managers have extensive knowledge about the industry of recycling construction and demolition waste and were able to build themselves a network in this sector. The social aspect of the company, to make a positive impact on the environment and people, is an objective the two founders are following strongly and on which the management and administration is based on. Although the company has 12 employees, the main responsibility around strategy, administration and management is followed by the two founders in the majority of the departments. However, CICLO also embodies a Supervisor of the Environment, Gianpierre Santillán, who makes sure the companies managements are aligned with the vision and mission of CICLO. It has to be mentioned that even if the vision, mission and strategies are followed ambitiously, there is not yet a proper business plan in place which the founders and employees are following or could present to investors (R. Mori, personal communication, July 19, 2023).

### 1.4.2 Marketing and Sales Analysis (M)

In the case of CICLO, Roger Mori, one of the founders, is also responsible for the marketing and sales of the company. The marketing and sales around CICLO's two business lines is not only focused on building an economically strong company which generates high revenues, but also to contribute to an environmental positive impact in the construction industry and to promote sustainable changes. The marketing and sales strategies of CICLO can be described with a principle which provides information about the product, price, place and promotion (R. Mori, personal communication, July 19, 2023).

Concerning the product, CICLO has two different product lines. On the one hand, they are offering the service of dispose construction waste generated by other construction companies on sites which pollute the environment. On the other hand, CICLO is offering an eco-paving stone which is made out of the recycled material of the collected construction and demolition waste (R. Mori, personal communication, July 19, 2023).

The price of CICLO's products is based on the price of conventional construction material. The company tries to offer their products at an affordable price which is similar to the products which are already on the market. Moreover, the product is aimed to have the same quality as non-eco-friendly products and distinguish to those products especially in terms of the environmental aspect (R. Mori, personal communication, July 19, 2023).

The service of CICLO and their product are available in the city of Lima, where their headquarters is also located and from where products are being transported to the customers. Due to the high demand in the metropolis and the easier transportation close to CICLO's plant, this place works well for the business. CICLO sells their products and offers their services mainly direct to customers (B2B). Therefore, a big network is important for the

company since they profit from recommendations inside the networks they are operating. Another important aspect is that the founders have a strong presence in the Peruvian innovation cleantech scene. By participating in congresses, conferences and professional events, especially the General Manager who is the representative of the company, can connect to interested people and therefore generate new leads (R. Mori, personal communication, July 19, 2023).

In terms of promotion, CICLO offers information about their products on their website. Moreover, the General Manager is working on social media campaigns, although those are not the main focus in their current marketing strategy. Rather, Roger Mori is active on LinkedIn in order to promote the product and service around his company on that platform. However, the main channel to make advertisement and attract new clients is via direct communication and sales. By doing so, they can make sure that the company's massage, which is formulated in their vision and mission, is understood in the right way and that strong business relations are built (R. Mori, personal communication, July 19, 2023).

### 1.4.3 Operations and Logistics Analysis (O)

The operations, which is mainly the responsibility of Marjorie Mori, one of the founders, includes the organization, planning and coordination of construction waste and the production of new products. By supervising the daily operations, the availabilities of the plant and the employees can be analyzed. Especially the oversight of CICLO's capabilities is important to organize, since the company has limited production capacity at their plant. Moreover, the business itself has no own transportation means and hires trucks for the collection of construction and demolition waste, which requires additional planning in the logistics (R. Mori, personal communication, July 19, 2023).

#### 1.4.4 Finance and Accounting Analysis (F)

In terms of finance, CICLO started as a financially independent company and until now has no investors which contribute with additional capital. However, the business needed to take out a loan in order to be able to have enough working capital and invest in machines, buy materials, to build the company in general. CICLO has had a 33% growth in sales in 2022 compared to the previous year and has grown steadily during the 3 years of operation. But it cannot continue to grow due to lack of capital which leads to difficulties in fulfilling all its orders and losing customers. Because they could not find appropriate investors, CICLO has had to borrow money from several banks in order to access working capital increasing non-current liabilities. However, CICLO has a lot of money that its customers owe them because of their payment policies which include long payment times. To make the best use of this money and improve their production, they need a significant investment to buy more assets for their company (R. Mori, personal communication, July 19, 2023).

## 1.4.5 Human Resources Analysis (H)

Due to the small numbers of employees, CICLO does not explicitly have a Human Resources department. However, Miriam Mena, the Administrative Assistant, is responsible for the overall tasks regarding Human Resources. She is in charge of making sure that the strong culture of sustainability and social responsibility the company's business model is based on is also incorporated in the employee's minds. Moreover, it is important to make sure that every single employee represents cultural values which fit to the overall vision and mission of CICLO. Furthermore, for companies in the construction industry such as CICLO, maintaining and supervising the compliance with safety regulations, is necessary. Therefore, Christopher Morán, who works as a Supervisor of Health and Security at Work controls the processes and safety within CICLO (R. Mori, personal communication, July 19, 2023).

#### 1.4.6 Information and Communication Analysis (I)

The industry of eco-material and recycling construction and demolition waste is dependent on the right information and technology. Since CICLO operates in an industry where technologies are getting more important every time, CICLO employs several technologies to enhance its operations. This includes the computer-aided ERP system Alegra for process optimization and the administrative management including quotes, invoicing or incomes. Moreover, different Microsoft applications are used in order to facilitate operations. Overall, through the technology-driven measures of the management and coordination, CICLO strives for even more sustainable and responsible practices in the construction industry (R. Mori, personal communication, July 19, 2023).

#### 1.4.7 Technology, Research and Development Analysis (T)

Especially since CICLO operates with relatively new technologies concerning recycling of construction waste, the constant innovation of technologies is essential. However, since CICLO is the first company in Lima concentrating on new ways to recycle construction and demolition waste, information is limited until now. Research and development are expensive but help the company to stay ahead of competition and attract interested customers (R. Mori, personal communication, July 19, 2023).

#### 1.4.8 Strengths and Weaknesses

Based on the analysis of all the different aspects of the AMOFHIT tool, key strengths and key weaknesses of the company CICLO can be determined. Those will be classified and displayed in Table 2.

**Table 2**Overview of strengths and weaknesses of CICLO

Strengths	Weaknesses

Centralized administration and management, providing clear leadership and decision-making	Almost all tasks of the various departments lie with the management
Founders with extensive industry knowledge	Limited capacity for production
Strong commitment to social and environmental impact, reflected in the company's vision and mission	Small company with limited financial means
First company in Lima operating in this sector, low competition	No business plan in action, no documentation to present to investors
Innovative approach in using new technologies for recycling construction waste, providing a competitive edge	The USP of the product relies mainly on sustainability and less on further aspects such as price or quality

#### 1.5 Conclusions

CICLO, the first company in Peru to convert Construction and Demolition Waste (CDW) into new eco-friendly materials, has shown significant progress and success in its mission to provide sustainable solutions in waste management and the supply of eco-materials to the construction market. Founded in 2015 by Roger and Marjorie Mori, the company has steadily grown in the past three years, and its commitment to sustainable development aligns with four of the United Nations' Sustainable Development Goals.

As a pioneer in Peru's eco-friendly construction materials industry, CICLO enjoys a competitive edge with established contracts, licenses, and three years of experience. The low threat of new entrants is due to high capital requirements and regulations. While CICLO has moderate power over suppliers and customers, the high threat of substitutes and industry rivalry present challenges. However, with its commitment to sustainability and innovative products, CICLO is well-positioned to lead in the eco-friendly construction sector and contribute to sustainable cities in Peru.

The organization's strengths lie in its centralized administration and management, with the founders' extensive knowledge and expertise driving the company's vision forward.

CICLO's strong commitment to social and environmental impact, reflected in its mission and values, has earned it recognition and multiple awards. Additionally, being the pioneer in its industry in Lima, CICLO enjoys low competition, providing an opportunity to establish itself as a market leader.

However, CICLO also faces several challenges and weaknesses. As a small company, it has limited financial means and production capacity, hindering its ability to fulfill all orders and meet growing demands. Sales are mainly conducted through direct communication, which may limit its reach to potential customers. Furthermore, while sustainability is its primary unique selling proposition (USP), additional factors such as price and quality could also enhance its competitive advantage.

Despite these challenges, CICLO has achieved significant milestones, with over 100 B2B customers and impressive environmental impacts, including saving 1.4K tons of CO2 in 2022. The company's eco-friendly materials, especially the Eco Paving Block with its EPD eco-label, have attracted interest from construction and real estate companies. The growing construction industry in Lima, coupled with an increasing willingness to invest in sustainable materials, presents a promising opportunity for CICLO to expand its market share.

To maintain its growth and overcome weaknesses, CICLO should consider investing in research and development to stay at the forefront of technological advancements in waste recycling.

#### **Chapter II: Key Problem**

The aim of this chapter is to analyze and further zoom in on the key problem CICLO has to face. Within a detailed evaluation, the substance, the location, the ownership, the magnitude, as well as the time perspective are taken into account.

#### 2.1 Identified Problems

CICLO, carving its niche in the Peruvian market, confronts a pivotal challenge obstructing its onward journey toward growth: acquiring essential funding from venture capital entities. The heart of the matter is that without a foundation that showcases their vision, strategy, and potential, investors remain skeptical. Their inability to present a compelling case backed by solid data and projections leaves them at a disadvantage when negotiating for the financial backing pivotal for their expansion.

Acquiring funding is often contingent upon a clear representation of a business's potential returns and long-term strategy (Abrams, 2023). And while businesses deploy various tools, like detailed reports and projections, to convey this, CICLO finds itself at a crossroads. Their potential remains veiled by the lack of comprehensive data representation, making it a daunting task to win the trust of prospective investors.

Such data-driven presentations not only delineate the company's current standing but offer a peek into its future trajectory. A deep dive into the market strategies would bring forth CICLO's unique offerings, target demographics, and how they plan to stand out amid competitors. Further, showcasing a lucid growth strategy, underpinned by thorough market analyses, serves as a beacon guiding the company towards its ambitious future. In essence, the predicament CICLO grapples with is its inability to tangibly communicate its value, aspirations, and promise of returns to potential investors.

#### 2.2 Key Problem

#### 2.2.1 Substance of the Problem

The core of the matter revolves around procuring crucial funding that can drive CICLO's growth ambitions. This requires a profound understanding and presentation of their business model, market strategy, financial insights, and comprehensive market scrutiny. It's pivotal to recognize that this isn't just about immediate funding but about positioning CICLO as a worthy investment, ensuring long-term financial influx and sustained growth.

# 2.2.2 Location of the Problem

The primary departments within CICLO that are responsible for and affected by this problem are the finance and marketing divisions (R. Mori, personal communication, July 19, 2023). These departments are the key custodians of information crucial to the development of a business plan. The finance department holds the keys to understanding the company's current financial standing and potential future projections, while the marketing department is the gateway to understanding market positioning, competition, and the intended growth strategy.

#### 2.2.3 Ownership of the Problem

The ownership of this problem rests squarely with the company's leadership, most notably the CEO, Roger Mori. The CEO is acutely aware of the issue and recognizes the imperative to address it in order to secure the required investment. This problem is not a peripheral concern but lies at the heart of CICLO's growth strategy. It's the CEO's responsibility to ensure that the organization creates a compelling business plan that can convince potential investors of its potential, and profitability.

### 2.2.4 Magnitude of the Problem

The magnitude of this problem extends beyond individual departments and pervades the entire organization. With a goal to double sales in the upcoming fiscal year, the

development of a compelling documentation about the operations and processes is an absolute necessity. It's not merely important to secure investment, but also to develop a blueprint that outlines the company's roadmap to achieve its ambitious targets. Failing to articulate this effectively could deter potential investors, leaving the company without the necessary funds to fuel its growth and achieve its strategic objectives.

In terms of sales in 2022, there is an increase of 62.63% compared to 2023, which is encouraging for the company's performance. However, CICLO for the year 2022 has a ROIC (Return On Invested Capital) of 10.57% which means that for every 100 soles of investment 10.57 soles of return on investment is generated which is a positive number but not attractive enough to invest. The SBS (Super Intendencia de Banca y Seguros) for long-term loans to small companies has an average reference rate of 22.37%, which would make CICLO's ROIC unattractive for investment (SBS, 2023).

# 2.2.5 Time Perspective of the Problem

This is an ongoing impediment. Until CICLO can convincingly delineate its potential and strategic vision, growth targets remain elusive. Such a delay not only jeopardizes immediate objectives but also threatens CICLO's long-term market stance. Time, therefore, is of paramount importance. Swift action to enhance the company's investor appeal can set them on a trajectory of success, propelling them towards their envisioned future.

# 2.3 Conclusions

In conclusion, CICLO's foremost obstacle in its path towards expansive growth in the Peruvian market is securing essential funding. This hurdle is not merely a financial quandary but fundamentally a communication challenge. CICLO's potential and ambition remain overshadowed due to its inability to effectively showcase its value, strategies, and prospective returns to potential investors. This necessitates a collaborative effort between the finance and marketing departments to cohesively present a compelling case to investors. Time is of the

essence, and without swift intervention to bridge this communication gap, CICLO risks not only missing its immediate growth targets but also jeopardizing its long-term market position.



# **Chapter III: Literature Review**

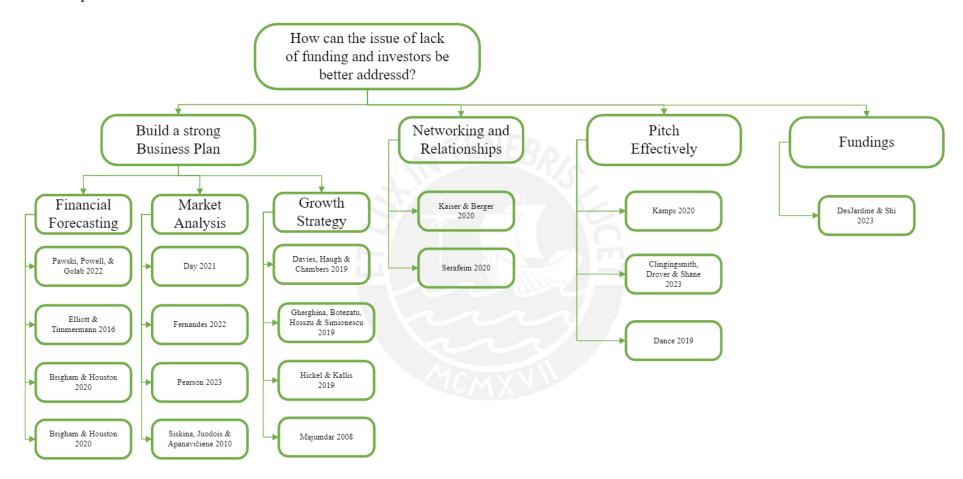
This chapter focuses on the literature review conducted in order to gain more background insights about the key problem CICLO is dealing with. At the same time, a literature map was created to illustrate the main theoretical inputs discovered.

# 3.1 Literature Mapping

The literature mapping approach was utilized to explore the realm of business problem analysis and solutions, particularly focusing on continuous process improvement strategies. This involved examining existing literature to uncover core ideas, methodologies, and tools employed for effective issue resolution and process enhancement. The mapping process unveiled subtopics that encapsulate the broader subject and overall problem, which is the lack of funding and investors, including the creation of a Business Plan, Networking, Pitching, and different forms of funding. Within these subtopics, different literature was searched and analysed. The complete Literature Map can be seen in Figure 2.

Figure 2

Literature Map



#### 3.2 Literature Review

In order to address the key statement of the company CICLO, "How can the issue of lack of funding and investors be better addressed?", this paper focuses on the key aspects which are essential in order to attract new investors. For instance, before new contracts which investors are made, a company needs to present a Business Plan, engage in Networking and Investor Relations and convince with an effective pitch. The findings of this paper are based on relevant literature, which is presented in this chapter. The literature review for this study employed a systematic approach to source discovery, focusing on academic databases such as EBSCO and JSTOR. By utilizing key terms like "Business Review," "Networking," "Investor Relations," and "Effective Pitching," the search strategy targeted relevant articles. Only peerreviewed sources were considered to ensure credibility, and a thorough quality assessment evaluated the authors' credentials and the reputation of publishing outlets. Thematic analysis facilitated the identification of common themes and key insights across the literature. A critical evaluation of individual studies unveiled contrasting viewpoints and limitations, contributing to a comprehensive understanding. Through APA 7th edition citation style, proper referencing was maintained. The literature review synthesized findings, addressing research objectives and identifying areas for further exploration. In the following, the key points and key findings of the main literature are summarized.

### 3.2.1 Financial Forecasting

The article by Pawski et al. (2022) discusses the great importance of small and medium-sized enterprises for global economies, as they are an important source of economic growth. To understand why some firms grow while others fail, the author uses the Michael Porter 5 Forces method as their success depends on understanding and adapting to the competitive forces affecting their industries. Based on the article, the author also supports the idea that SMEs that incorporate continuous strategic planning are more likely to achieve

better financial results than those who do not. Resting on interviews with managers, the author argues that with product adaptation and competitive advantage two important factors arise that lead to differentiation and customer referral for increasing gross profits. The article also details various future factors that can affect the future gross profits of SMEs.

In their publication, Elliott and Timmermann (2016) provide a comprehensive analysis of forecasting practice in the fields of economics and finance. The authors present a variety of approaches and methodologies used to generate forecasts, from econometric methods to statistical techniques and artificial intelligence-based models. In addition, the challenges and limitations associated with forecasting, including uncertainty and volatility in financial markets, are discussed. The article also mentions the assessment of forecasting accuracy and the importance of selecting the right method for each specific context. Macroeconomic and financial forecasting are addressed separately, highlighting the differences in the variables and data used in each. As a conclusion, the authors offer an outlook on possible future developments in forecasting research, such as the incorporation of new technologies and data, and the development of more sophisticated approaches to improve forecasting accuracy in these fields.

The finance book by Eugene F. Brigham and Joel F. Houston (2020) is a widely used reference work in the field of finance and financial management. The book covers a variety of topics related to the management of finance in businesses and organizations, providing a solid theoretical and practical basis for understanding key financial principles. Topics covered include asset valuation, investment decision-making, capital structure, working capital management and financial planning. The book is characterized by its clear and accessible approach, making it a useful tool for both students and professionals wishing to improve their understanding of financial management in the business context.

In the article by Torres et al, El emprendimiento y finanzas en la economía circular (2023), enterprises are being linked to a sustainable economic system that harnesses nature's resources integrated with technology for the production of eco-friendly consumer goods and services that can be regenerated and thus contribute to the ecosystem. According to the article, knowing how to take advantage of the benefits of the circular economy also promises financial sustainability, as long as risks are assessed for proper resource management and accountability. Moreover, it is mentioned that the circular economy employs precepts of social responsibility. Furthermore, the author mentions that it must be kept in mind that the circular economy also has its disadvantages and is hard to leverage since the circular economy also depends on climate change, ecosystems and nature.

# 3.2.2 Market Analysis

George S. Day's (2021) article discusses two primary methods for market analysis and definition: the top-down approach, which focuses on competitive capabilities and resource transferability, and the bottom-up approach, which centres on customer needs and usage patterns. The paper proposes an integrated strategy that merges both approaches. This strategy starts with a common model highlighting the main dimensions of a market and acknowledges that various market definitions are required for different strategic purposes. The strategic planning framework should be congruent with these purposes and present a strategically relevant balance of cost and demand elements. A method of creating business units from clusters of product-markets is suggested to be efficient for achieving this equilibrium.

Fernandes (2022) outlines trends in the construction paver industry. The global concrete pavers market is anticipated to grow from USD 6.75 billion in 2020 to an unspecified amount by 2028, at a CAGR of 4.5%. The market comprises two primary types of pavers: brick concrete pavers and general pavers, with applications spanning construction,

roads, and others. These pavers, durable and suitable for both residential and commercial construction, are used in projects ranging from driveways to high-rise building floors. The market is expected to grow due to the expanding road construction industry, increased use in residential and commercial projects, a rising number of infrastructure projects, and opportunities for new entrants. North America, specifically the USA, leads the market due to large-scale construction activities and a growing number of housing projects.

Pearson's (2023) article discusses the market size of asphalt pavers. An asphalt paver is a vital piece of construction equipment that lays asphalt for roads, bridges, and parking lots, making road construction and maintenance efficient. Fed by a dump truck, it moves asphalt from the hopper at the front to the rear of the machine, where it is evenly spread by a heated screed. The global market for asphalt pavers has been growing, reflecting the rising demand for robust, high-quality roads. However, asphalt remains the largest competitor for eco pavers, environmentally friendly alternatives, even as interest in sustainable construction practices increases. While asphalt pavers continue to dominate, the push for greener alternatives marks an important shift in the industry.

Siskina, Juodis, & Apanavičiene report discusses (2010) how the competitiveness of a construction company is significantly impacted by its management system, work organization, and asset utilization, all of which influence overhead costs and bidding prices. By conducting statistical analysis on a homogeneous group of construction companies, one can understand the distribution function of a company's overhead costs, providing insights into its competitive advantages or disadvantages. The study identified two main parameters impacting overhead costs: the number of head office employees and the area of the company's facilities. The proposed methodology allows construction managers to scientifically assess their company's competitive position within the market, analyze its

operations, and evaluate the competitiveness of its bidding prices and specific costs in public construction tenders.

## 3.2.3 Growth Strategy

Third, in order to attract new investors and increase sales and the company value in the upcoming years, a growth strategy is necessary. As Majumdar (2008) describes in his article, a growth strategy embraces linking an entrepreneur's vision and perceptions toward growth with the process of finding fit in the marketplace for strategic decision making in the future. Further, he mentions that growing is a process which happens differently among entrepreneurs. The article addresses the challenges of defining and measuring growth in small businesses and the complexity of strategic planning in this context.

Davies, Haugh & Chambers (2019) discuss in their article the increasing focus on barriers to growth for SMEs, particularly in hybrid organizations like social ventures. Although the barriers to growth are more frequently linked to economic terms such as gaining a bigger market share, for social businesses it is not only about the financial performance. But it is especially about the motivation to grow and the question how to make a positive impact on the environment, which the paper highlights.

In their 2019 article, Gherghina et al. emphasize the crucial role played by SMEs in driving local economic development. They shed light on how these small and medium-sized enterprises contribute to job creation, poverty reduction, and overall economic growth within their communities. The insights presented in the paper offer valuable perspectives for those seeking investment opportunities, particularly in the context of social enterprises.

The paper by Hickel & Kallis (2019) analyses the notion of green growth, which is of highest interest to social businesses, as a policy response to climate change and ecological breakdown. The authors conclude that green growth is likely to be a misguided objective.

Also, it is mentioned that policymakers need to consider alternative strategies, as well as social businesses which are working on their growth strategies.

## 3.2.4 Networking and Relationships

The article by Serafeim (2020) discusses the increasing importance of environmental, social, and governance (ESG) data for investors and how companies are incorporating ESG considerations into their strategies and operations. The challenge for corporate leaders is knowing how to effectively focus on ESG and communicate their efforts by networking and building relations to investors. The article emphasizes that ESG integration should be a priority for top executives and become central to the company's culture to create new forms of competitive advantage.

In their paper, Kaiser & Berger (2020) address trust and relations between managers and investors. The paper emphasizes the importance of trust in strengthening the relationship and reducing risk. It also points out the need for further research on the outcomes of investor relationship marketing.

# 3.2.5 Efficient Pitching

In the comprehensive guide for startup founders by Kamps (2020), investors find out how to craft a compelling pitch that convince investors. Amongst other aspects, the book highlights the importance of storytelling, the use of visuals, and effective practice techniques. Key conclusions from the book include the significance of making a strong first impression, highlighting the strengths of your team, and presenting a clear and persuasive pitch that addresses a real problem with a unique solution in a large market. By doing so, any founder who is seeking to raise capital can improve his or her pitching skills and get a step closer to persuade investors.

The article by Clingingsmith, Drover & Shane (2023) investigates on the effects of pitch training on entrepreneurs. The study involved 271 would-be entrepreneurs who received

different pitch trainings. The findings revealed that pitch training improved entrepreneurs' pitches but caused some short-term disruption. Over a time span of 30 months, trained entrepreneurs participated more in business activities and entrepreneurial learning but were less likely to have employees and more likely to abandon their ventures. These results underscore the necessity of carefully evaluating both, the advantages and the potential drawbacks of pitch training for entrepreneurs' careers.

In the paper by Dance (2019), the focus is on the vital role of pitching in the realm of science, advocating it as an indispensable skill for scientists. The article stresses the potential benefits of pitching, such as garnering attention for research, establishing connections with collaborators and funders, and inspiring others to pursue scientific careers. To pitch effectively, the article advises scientists to understand their audience, communicate clearly and persuasively, and engage in regular practice. Overall, the affects can also be transmitted from professionals from other areas, such as economy, in order to encourage them to improve their persuading skills when negotiating with investors and hence, enable successful communication and professional and economic growth.

### 3.2.6 Fundings

This case study by DesJardine & Wei Shi Shi (2023) talks about how to get strategic shareholders in line with business values, where companies must develop valuable and hard-to-imitate competencies and also develop connections with strategic partners in order to achieve better performance. Shareholders often leverage their personal and professional networks to establish an ecosystem that encourages the participation of others. This ecosystem is designed to foster strong relationships between managers and shareholders. The study also details that companies will unlock the full potential of their shareholder base only when they apply a more strategic approach to investor relations.

In conclusion, the literature review found that a well-written business plan, effective networking, and a strong pitch are all essential in attracting new investors. The literature also highlighted the importance of continuous process improvement strategies in addressing business problems. The study identified areas for further research, such as the impact of different funding sources on business success. In short, businesses that want to attract new investors should focus on creating a strong business plan, networking with potential investors, and giving a compelling pitch. They should also consider using continuous process improvement strategies to address any business problems they may have.



# **Chapter IV: Qualitative and Quantitative Analysis**

In order to analyze the main causes behind the core problem of CICLO, it is necessary to analyze information and data about the roots and backgrounds which made the problem appear. Therefore, qualitative and quantitative research was conducted to determine the following topics in the case of CICLO: Requirements that investors have for businesses who are applying for funding, further factors that are important for an investment decision, the role of finances in terms of attracting investors and interviews with experts and the financial situation of CICLO.

# 4.1 Qualitative Analysis

For this qualitative analysis, an interview with Sergio Lopez Orchad was conducted.

# 4.1.1 Requirements of Investors Towards Companies Seeking Capital

There are various requirements a company has to fulfill to be eligible to apply for funding. By examining them, it can be determined that investors are mainly motivated by the prospect of achieving favorable financial returns on their investments, prompting them to seek out businesses that hold the promise of substantial growth over time. In their search for profitable opportunities, investors scrutinize several key factors. They are attracted to businesses led by capable management teams who demonstrate a keen ability to navigate risks effectively while fostering transparency and open communication about market opportunities. Therefore, a clear market analysis and marketing strategies are of upmost importance to the investors. The appeal of competitive advantages, coupled with the potential for scalability and a track record of positive earnings and cash flow, further enhances a company's attractiveness. Sound corporate governance practices, featuring independent and diverse boards, provide an additional layer of assurance for investors. To secure investment, businesses must articulate a well-defined growth strategy, provide evidence of their execution capabilities, and cultivate a culture of transparent engagement, thus aligning their objectives

with those of the investor community (McNabb, Charan & Carey, 2021). In the case of CICLO, possible investors, especially in Lima and Peru, should include organizations and companies that focuses on either funding and investing in small social businesses or start-ups in general. Since CICLO has the opportunity to seek funding from different entities, five examples are studied in more depth.

First of all, Fundación Avina is a global organization that drives systemic changes on a large scale. Originating from the Global South, it influences change through collaborative processes that prioritize human dignity and environmental care (Fundación Avina, 2023). Fundación Avina supports small social companies financially and in order to do so, it requires that the company submits its financial data, sales and a proper business plan before Fundación Avina will invest (S. Lopez, personal communication, August 24<sup>th</sup>, 2023).

Second, Acumen is a pioneering organization focused on tackling the challenges of poverty and inequality in a disruptive way. They manage impact investment funds to support the growth of innovative business models that have both high market potential and social impact. Additionally, they aim to create a community of change agents equipped with the skills and values to transform societal narratives (Acumen, 2023). Similar as for the first company, Acumen requires that the business concept and business model are presented and financial data about the company are published (S. Lopez, personal communication, August 24<sup>th</sup>, 2023).

Third, Kunan is a Peruvian platform dedicated to strengthening the social entrepreneurship ecosystem in the country. By fostering collaboration among various stakeholders, including public and private organizations at national and international levels, Kunan develops initiatives that create the necessary conditions for more and better social enterprises in Peru (Kunan, 2023). In order to Kunan helping and supporting small local businesses, they are interested in financial data, such as the ROI of a business, further

financial indicators and information about the business operations (S. Lopez, personal communication, August 24<sup>th</sup>, 2023).

Forth, PECAP was founded by five active angel investment networks in the Peruvian entrepreneurial ecosystem with the support of Swiss EP. It aims to promote financing for innovative startups that drive inclusive development in Peru. By doing so, it contributes to the country's productivity, competitiveness, and the creation of quality employment. PECAP serves as the association for seed and entrepreneurial capital investors in Peru (PECAP, 2023). However, also for this company there are requirements before they consent to invest. Requirements are to present a business plan with extensive information about their financial situation and (c) disclose their bank statements, for instance, can apply for financial support (S. Lopez, personal communication, August 24<sup>th</sup>, 2023).

Fifth, Salkantay Venture is an early-stage venture capital fund that focuses on Latin American founders and startups targeting Spanish-speaking countries. Their investments are directed towards companies leveraging technology to address critical challenges in the region. They provide not only capital but also act as strategic partners, offering hands-on support, expertise, and global networking opportunities (Salkantay Ventures, 2023). Requirements for businesses in order to receive the financial support are, amongst others, showcasing a positive credit history in the financial system, including recent financial statements (not older than 3 months), handing in balance sheets and profit and loss statements for the last 2 years, presenting a detailed and realistic business plan (S. Lopez, personal communication, August 24<sup>th</sup>, 2023). It has to be mentioned that every institution and financial entity in general requests different documents and insights from companies. However, there are similarities such as the financial statement and financial status of a company, a business plan which includes not only finances but also a market analysis and formal requirements such as a minimum time of operation or fulfil tax regulations.

## 4.1.2 Interview With a Relevant Expert

Interview Report: Sergio Andres Lopez Orchard, professor at Centrum PUCP, on Sustainability in the Peruvian Construction Industry

Topic: Integration of Sustainable Materials, Technologies, and Practices in the Construction Industry.

Sergio Andres Lopez Orchard outlined that the construction industry is the third-largest contributor to Peru's GDP. However, a significant challenge arises from the fact that a considerable portion of this industry is informal, often sidelining the importance of sustainability. Furthermore, he highlighted that those in the formal sector are mainly driven by costs. There exists a prevailing notion among Peruvian managers that sustainability equates to higher costs. Orchard emphasizes the need to re-educate the market and demonstrate that sustainable products can be made available at comparable prices to conventional ones. Otherwise, sustainable options end up targeting only a niche market due to the higher perceived cost (S. Lopez, personal communication, August 10<sup>th,</sup> 2023).

Topic: Peru's Stance on Global Warming and Climate Change.

Despite the global emphasis on sustainability, Peru seems to be lagging behind. Orchard provides insight into this situation by pointing out that Peru, on average, has a much lower carbon footprint compared to global giants like the US and China. This leads to a prevalent mindset in Peru: since their contribution to global warming is significantly lower, any sacrifice in terms of cost savings wouldn't necessarily bring about a discernible positive impact on a global scale. Such a mindset, while not unique to Peru, has become a justification for many to not prioritize sustainable practices (S. Lopez, personal communication, August  $10^{th}$ , 2023).

Topic: Criteria for Investment in Sustainable Businesses.

When asked about his priorities as an investor, Orchard emphasized the importance of a company's Return on Investment (ROI). He wanted to ensure that a sustainable company could offer returns comparable to its conventional counterparts. He also expressed interest in the company's broader mission and its tangible impact, such as a construction company transforming waste into sustainable building materials. Crucially, Orchard wants evidence that the product can be sold at the same price point as non-sustainable alternatives. Financial health and forecasting, indicated by metrics like EBITDA and net income, remain crucial for him as well (S. Lopez, personal communication, August 10<sup>th,</sup> 2023).

# Concluding Remarks:

Sergio Andres Lopez Orchard suggests that CICLO should prioritize refining their production systems. A low EBITDA underscores the need for this, and he believes that improved productivity could be a pathway to lower costs, making sustainable options more attractive and competitive in the market. This could, in turn, begin to shift the perception of sustainability as a luxury or niche concern to a standard practice in the Peruvian construction industry (S. Lopez, personal communication, August 10<sup>th</sup>, 2023).

# 4.2 Quantitative Analysis

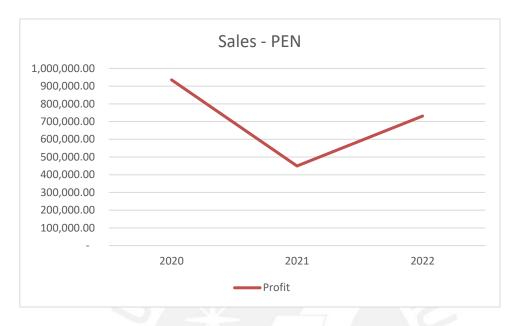
For this quantitative analysis, only the years since the beginning of the operations of CICLO, starting from the year 2020, are taken into account.

#### 4.2.1. Sales

CICLO has two lines of operations. On the one hand, the management of construction and demolition waste and, on the second hand, the production of construction aggregates for the manufacture of recycled ecological products. The Sales of CICLO are displayed in Figure 3.

Figure 3

Sales per year (PEN)



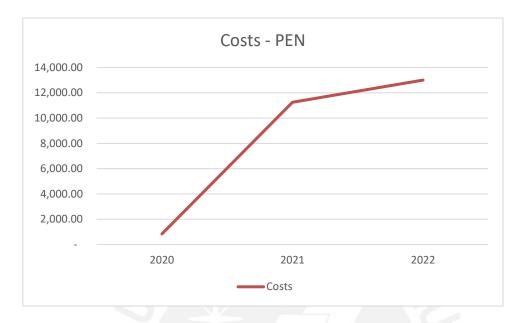
The displayed graph shows the fluctuation of CICLO's profit. In the year 2020 the company started operations and had a good first sales year. In more detail, approximately 80% of CICLO's revenues in the second half of 2020 came from the demolition and construction waste treatment service due to a large contract. However, since in 2020 the COVID-19 pandemic started, in the following year 2021, difficulties to deal with the new situation and recovery can be seen. In this year, CICLO had a decrease in profits of 48% compared to the previous year. In 2021, the company began operations with the sale of eco pavers, the main recycled product that the company produces. This product represents 11% of CICLO's net sales in 2021 and 2022.

### 4.2.2 Costs

To have an initial overview of CICLO's costs, Figure 4 gives an outline of those.

Figure 4

Costs per year (PEN)



One of the problems that CICLO has to face is the not-well-structured costs it displays. Compared to sales, the costs are low, which is an issue since it is not possible to have a good reading of the finances, with costs being only 1.2% of the income. For a better visualization of the costs, the gross profit margin (Sales - Cost of sales) /Sales will be used. This is portrayed in Table 3.

Table 3

Gross profit margin

	2020	2021	2022
Gross Profit margin	99.91%	97.50%	98.22%

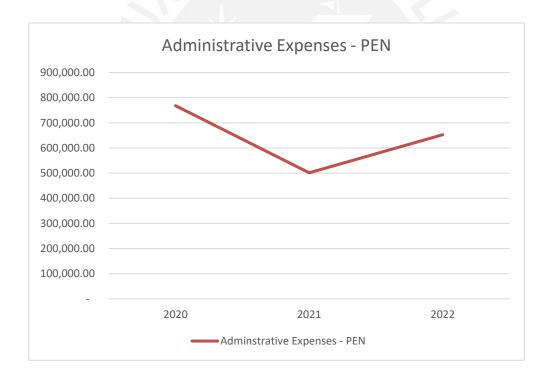
With the costs and sales, the profit margin can be calculated. The result shows that the Gross Profit margin decreased in 2021 and was still lower in 2022 than in 2022, which shows that the costs are almost negligible in the evaluation of the company's profit and loss statement.

# 4.2.3 Expenses

CICLO concentrates almost all of its costs and expenses in one single account, the administrative expenses account. One of the company's biggest variable costs is the rental of trucks which is necessary for the transportation of the waste to the plant. However, the company's accounting, which is outsourced, adds this cost as an expense. In addition, the depreciation that would serve as a tax shield does not appear in the income statement as a separate account but is included in administrative expenses. The expenses are presented in Figure 5.

Figure 5

Administrative Expenses (PEN)

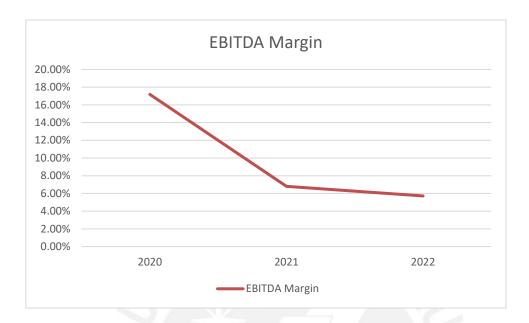


# 4.2.4 EBITDA

The EBITDA margin represents the earnings before taxes, interest and amortization and is used to show the profit. With this it can be analyzed that the business is profitable even though there is a decrease in the year 2022 since the EBITDA is still positive. This is displayed in Figure 6 and Table 4.

Figure 6

EBITDA margin



**Table 4** *EBITDA Margin* 

	2021	2022
17.18%	6.80%	5.72%
	17.18%	17.18% 6.80%

# 4.2.5 ROIC

The Return of investment capital (ROIC) is a financial measure that assesses how efficiently a company uses its invested capital to generate profits. Calculating total operating capital compared to the Net Operating Profit After Taxes (NOPAT) is the total profit generated by an operation. It excludes debt costs, such as financial expenses and other expenses related to the financing of the company, as it seeks to measure the operating performance of the company. Table 5 shows the calculation of the ROIC of CICLO for the years 2020, 2021 and 2022.

Table 5

ROIC

	2020	2021	2022
ROIC	82.86%	7.16%	10.57%

It can be seen that the ROIC has decreased considerably in the year 2021 due to considerably higher sales than expenses in 2020. Expenses were adjusted for the years 2021 and 2022, considering that for the year 2022 a return of 10.57 soles for every 100 soles invested was given.

# 4.2.6 WACC

For a better evaluation and performance of the company in financial terms, it is necessary to use a reference in order to know if an investment in the company is beneficial. For this purpose, the WACC (Weighted Average Cost of Capital) is used. This indicator measures the cost of equity plus the cost of debt. Table 6 displays the WACC structure of CICLO.

Table 6

WACC structure

Concept	Data	Reference
Beta	2.66	Retrieved from Damodaran database
		(Leveraged Beta)
Risk-free rate	5.11%	The rate of return on Treasury bonds at
		93Y is taken. Taken from: (USS
		Department of Treasury - 2021).
Risk premium	11.82%	Premium obtained from the difference in
		yields - S&P500 and T - Bonds USA
		Damodaran
COK (Ke)	25.21%	
Tax rate	29.50%	Peru tax base
Country risk	2.43%	Country Risk Premium (Peru)
Debt ratio	0.69	
Equity ratio	0.31	
Costo of Dept (Kd)	23.65%	Weighted average of current loan interest
		rates

By carrying out the CAPM and WACC analysis it can be concluded that at the moment CICLO is not a company that is interesting for investors, in terms of finances, as it has a ROIC lower than the opportunity cost of 20.81%. A lower Weighted Average Cost of Capital (WACC) and a higher ROIC is beneficial because it leads to a higher gap between the WACC and the Return on Invested Capital (ROIC). This difference, or spread, contributes to higher company value. This means, best case scenario, the ROIC should be higher as the WACC, or at least similarly high as the WACC. However, when the value of a company starts to decrease, it's often due to several factors. One significant factor is high leverage, which can result in a situation where CICLO is eroding value. In such cases, it's advisable for investors to consider alternative investment opportunities (Lloyd & Davis, 2007). However, to get a better picture of whether the company is attractive for investment, the rates of return for small companies provided by the SBS can be consulted. The number is 22.37%, which means that the ROIC of CICLO is even lower than what the market asks for (SBS, 2023).

### 4.3 Conclusions

To conclude the investigations about information and data regarding CICLO's main challenge, the most essential results are presented in the following. Regarding the qualitative analysis, it can be analyzed that all financial entities and investors work with different requirements businesses must fulfill. For the three analyzed entities, BBVA Perú, Banco Pichincha S.A. and the investor company Camino Financial, differences as well as certain same requirements were inspected, which is represented in Table 7.

**Table 7**Requirements from different investor entities

Company	Requirements

Fundación Avina	Submission of financial data, sales, and a	
	business plan	
Acumen	Presentation of business concept, model,	
	and financial data	
Kunan	Financial data including ROI, indicators,	
	and operational information	
PECAP	Business plan with financial information	
	and bank statements	
Salkantay Venture	Positive credit history, recent financial	
	statements, balance sheets, profit and loss	
	statements, detailed business plan	

Moreover, according to the interview conducted, investors mainly look for financial statements and a proper business plan prior to investing into businesses. On the quantitative side CICLO has a large debt to equity ratio, which makes its performance analysis uncompetitive. Although its sales are growing and the company has potential, its financial management since 2021 has not been good, with a return on investment of just over 10% and an opportunity cost for investors of 20.81% the company is not adding value. Companies such as CICLO focus on how to cut costs and rely on how to pay less tax. Having high administrative expenses almost equaling sales generates great distrust when requesting investments and therefore a better overview of the financials in order is necessary.

# **Chapter V: Root-Cause Analysis of the Problem**

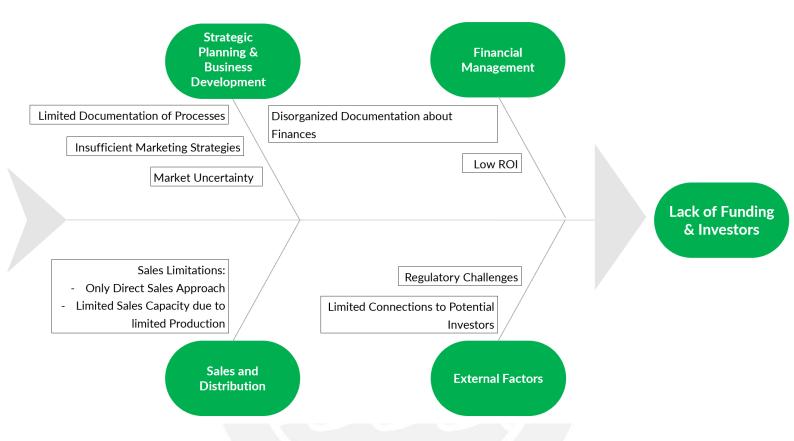
The objective of Chapter 5 is to provide the reader with insight into the primary factors that have contributed to the challenges faced by the company CICLO. Furthermore, these factors are elucidated to offer a clearer understanding of potential alternative solutions, which will be explored in greater detail in subsequent chapters.

### **5.1 Identified Causes**

Based on the analysis of the qualitative and quantitative data from CICLO and the environment they are operating in in chapter IV, the root causes behind CICLO's main challenge, lack of investors and funding, can be discovered and examined. There are different subcategories which influence the emergence of the principal challenge within the company. These smaller subsections can be condensed into four primary areas where the underlying causes of the key problem are situated: (a) Strategies for planning operations in different departments and Business Development, (b) Financial Management and the accuracy of financial documentation, (c) Sales and Distribution and (d) External Factors encompassing network dynamics and investor engagement.

For a clearer understanding of the root cause identification process, the Fishbone method, also referred to as the Ishikawa or cause-and-effect diagram, created by Kaoru Ishikawa in 1968, is utilized. This technique visually displays potential factors that contribute to a specific issue. Figure 7 illustrates the outcomes of this method, displaying the primary drivers of CICLO's central challenge. This diagram, resembling a fish's skeletal structure, facilitates comprehensive analysis and effective problem resolution.

**Figure 7**Fishbone Diagram Analysis



# 5.1.1 Strategic Planning & Business Development

Limited Documentation of Processes. As previously highlighted, CICLO has only minimal documentation regarding its various operational processes. This results from the multitasking responsibilities of the management. Although the founders possess the skills for documentation, time constraints often prevent them from doing so. Furthermore, other employees may not fully excel in providing accurate documentation. As a consequence, employees within CICLO might need to exert extra effort to understand task procedures, potentially leading to unintended errors and operational delays. Additionally, investors require proper documentation to establish funding contracts with a business, as discussed in

chapter 4.1.1. Particularly, the absence of comprehensive information in the form of a business plan hinders easy access to funding through investor engagement.

Insufficient Marketing Strategies. The marketing strategies at CICLO are overseen by its founder, Roger Mori. Despite the intention to engage in social media advertising, current time constraints have shifted the focus towards promoting CICLO and its operations through LinkedIn. Previously, CICLO had enlisted an intern to handle marketing strategies, but due to misalignment in timing and collaboration, the founders deemed the intern's role unnecessary for the company's progress. Nonetheless, there exists a current requirement for a dedicated individual to spearhead marketing strategies, and efforts are underway to recruit suitable personnel for the role.

Market Uncertainty. CICLO is the first company in Lima that focuses on disposing demolition and construction waste in an eco-friendly way and making eco-paving stones. Because there are no other companies like this, there is not much information about how big the market is and how it might grow. This lack of information makes it hard to predict how the business will grow and to show how the company is developing, especially to investors.

#### 5.1.2 Financial Management

Disorganization of Financials. Regarding the financial aspect, CICLO faced challenges in the management of this department. Since its inception, the CEO acknowledges struggling with effective financial management and its documentation due to limited experience. Early in the company's formation, a lack of advisory support exacerbated this issue. While the company's accounting is outsourced, complications arise in categorizing entries within the income statement. There is no distinction between fixed and variable costs, expenses are not clearly differentiated from costs, and depreciation, despite the presence of eight fixed assets, is omitted from the financial statement. Consequently, this lack of financial clarity and disorganization of financial positions lead to ineffective financial control,

manifesting in results such as a diminished return on investment. This, in turn, reduces the company's attractiveness to potential investors. However, it has to be added that due to the financial data being disorganized, the authors of this thesis were able to organize and structure the information in order to analyze different key figures and ratios such as they are presented in chapter 4.2 and chapter 7.1.

Low Return on Investment Capital. Another significant challenge lies in the consistently low Return on Investment Capital (ROIC) within the company's financial management. The calculation of ROIC is a crucial measure to understand how profitable and efficient investments are. However, due to incomplete and outdated records, or insufficient documentation for the calculation of a low ROIC figure, the accuracy of this metric becomes questionable. This perception of a low ROIC might lead potential investors and stakeholders to have negative opinions.

### 5.1.3 Sales and Distribution

Sales Limitations. Sales and distribution present a noteworthy challenge marked by the confinement of sales activities solely to direct personal interactions with potential clients. On the one hand, the two founders, responsible for sales, are constrained by time limitations that prevent them from dedicating full attention to this aspect, despite the necessity to expand the customer base. On the other hand, personalized sales interactions indeed enhance potential customers' understanding of CICLO's vision and mission, yet this method also has its limitations in terms of the number of clients it can reach. Without quicker customer acquisition methods, such as digital approaches, the company's client base growth might remain low and let it grow only slowly. This might raise doubts among investors.

Furthermore, another challenge is the issue of limited sales. This arises due to CICLO's finite production capacity in the eco-pavers business line. This inherent restriction on eco-paver production subsequently confines the range of available products for sale. If the

production of eco-pavers is limited to a smaller quantity, it becomes logically impossible to sell a greater number of products than what is actually available, although investors might want to see higher sales numbers.

#### 5.1.4 External Factors

Regulatory Challenges. CICLO faces several challenges due to the regulations set by the government and other authorities. One significant concern is about the guidelines for producing eco-paving stones. These rules are detailed and specify exactly how the paving stones should be made, including what to include or avoid. Following these rules is difficult and requires CICLO to use a more complex production process. Another point to mention is that even though there are rules for recycling and behaving in a sustainable way, these rules are often not closely watched or enforced. Because of this, many people and businesses do not pay much attention to eco-friendly options. As a result, while CICLO is doing a lot of research into sustainable construction, not everyone is putting in the same effort or even caring about the topic. The level of public awareness is still rather low.

Limited Connections to potential Investors. Since CICLO is the first company in Peru that works on sustainably collecting and making construction materials, they are still in the process of finding potential investors. Even though the founders are gradually building a network with their industry knowledge, making connections is taking time. This is due to a not-extended network to connect all professionals and interesting parties in this area.

#### **5.2 Main Causes of the Problem**

Following the creation of the fishbone diagram and the analysis of specific root causes underlying CICLO's main challenge, the importance of various subcategories needs to be assessed. To accomplish this, a ranking was devised in collaboration with Roger Mari, the CEO of CICLO. The ranking begins with the most crucial aspects that have the most significant impact on day-to-day operations. The ranking is based on two aspects. On the one

hand, four criteria were elaborated. First, strategic alignment assesses how well an issue aligns with the company's long-term goals, mission, and strategic vision, allowing the CEO to prioritize issues that significantly affect the company's strategic direction. Second, financial impact focuses on the potential financial consequences of each issue on the company's revenue, profitability, and growth, enabling the CEO to prioritize issues with substantial financial risks or opportunities. Third, long-term sustainability identifies issues that, if left unresolved, could have severe and lasting negative effects on the company's sustainability and viability. The CEO may prioritize issues that threaten the company's long-term success. Forth, stakeholder perception evaluates how various issues influence the perception of important stakeholders such as customers, investors, employees, and partners. The CEO might prioritize issues that can impact stakeholder trust and relationships. On the other hand, CEO Roger Mori included his personal perception and feeling for the importance of the various issues and then classified them accordingly. The whole ranking, including the criteria and the CEO's opinion is showcased in Table 8.

**Table 8**Ranking Main Causes of the Problem

Issue	Strategic Allignment (25%)	Financial Impact (30%)	Long-Term Sustainability (15%)	Stakeholder Perception (30%)	Total Weight Score	
Limited Documentation	1	3	2	4	2.65	1
Insufficient Marketing Strategy	1	4	3	2	2.35	3
Market Uncertainty	1	3	4	2	2.35	6
Disorganized Financials	1	4	2	3	2.65	2

Low ROI	1	4	3	2	2.35	4
Sales Limitations	1	3	4	2	2.35	5
Regulatory Challenges	3	1	4	2	2.25	7
Limited Networking	3	1	4	2	2.25	8

According to the CEO of CICLO, the foremost cause of the problem is the insufficient documentation and lack of information available to present to potential investors. The main criteria affected by this issue is the stakeholder perception, as it is evident that the absence of key components, such as a business plan, complicates the presentation of data to investors and hampers the overall clarity of the company's overview. Similarly, there is a huge financial impact by not stating operations and internal ongoings in a structured and detailed plan, since it affects financial performance as well. This leads to the second key problem, which is the disorganization within financial statements. This poses another challenge, deterring investors and funding due to the need for accurate numbers and transparent data. Although the total weight score is the same as for the limited documentation, in accordance with Roger Mori the disorganization is the second serious issue, since although it is important to solve it, this one is more feasible with acquiring the right employees with the necessary skills. Logically, especially the financial impact is high. Also, the stakeholder perception is affected since precise financial forecasting are the initial requisites that investors typically seek, and their absence presents a significant barrier to investor engagement. As the third main issue, the deficiency of personnel in the marketing department and the CEO's constrained availability for marketing efforts contribute to a limited reach towards potential customers and investors. However, it also highly affects financial performance since without marketing strategies and advertising, sales might stagnate. Moreover, in terms of long-term

sustainability it can be stated that the company is likely to have difficulties with attracting new customers and investors in the future when lacking a proper marketing strategy. Moreover, without effectively disseminating their mission, activities, and positive societal impacts (which all contributes to the strategic alignment) through publications and advertisements, CICLO remains undiscovered by many potential investors. It has to be clarified that although the issues ranked three to six have the same ranking, Roger Mori decided the importance according to his personal perception. Therefore, to address the issue of CICLO's low Return on Investment (ROI), the CEO acknowledges the high financial impact and problems in terms of long-term success (sustainability) without improving that. This challenge, however, can be mitigated through sufficient time and focus on improving financial documentation. The CEO does not view Sales Limitations as a primary cause, recognizing the value of a direct approach to customers for conveying the company's message and cultivating interest, albeit requiring refinement and training. The market's uncertainty is acknowledged but not a significant concern, given CICLO's niche presence and the need for proprietary data rather than relying on existing statistics. Similarly, regulatory challenges are considered manageable by the CEO with ample effort, although difficulties with the regulations have an negative effect on the sustainability and strategic alignment of CICLO. In terms of networking, the CEO believes the company is progressively expanding its connections through participation in events and fairs. However, proactively seeking entities with aligned interests beyond these occasions could enhance networking and increase prospects for future funding. In summary, the central causes behind CICLO's primary challenge appear to be inadequate documentation, the imperative of refining customer and investor pitches, and the development of an expansive network to engage a wider array of potential investors.

In conclusion, the main issues of CICLO concerning the key problem of the company are the lack of documentation, disorganized information and especially the financial data and insufficient operational strategies. Roger Mori, the CEO, is aware of these issues and names them as root causes for the company's issues. In order to solve the problem, those root causes have to be analyzed and solved with a proper strategy, which will be further assessed in the following chapters.



## **Chapter VI: Assessed Solution Alternatives**

This chapter gives an overview of different possible solution alternatives CICLO can introduce in order to solve their key problem.

### 6.1 Alternatives to Solve the Problem

In the competitive world of business, securing the necessary funding stands out as a monumental challenge for many emerging companies. For CICLO, this challenge is particularly prominent. The following solutions delve deeper into methods that can potentially address CICLO's critical financial needs.

# 6.1.1 Networking with More Businesses/People to Expand the Business

In today's interconnected business world, the power of networking cannot be overstated. For a start-up company like CICLO, forging new connections can be the difference between stagnation and explosive growth. When a company networks effectively, it does not just establish professional relationships; it creates a tapestry of potential opportunities. Every interaction can lead to a new door being opened, be it in the form of an introduction to an influential venture capitalist, a partnership with a complementary business, or even mentorship from a seasoned entrepreneur. Beyond this, the process of networking facilitates knowledge exchange. By interacting with a myriad of stakeholders from various sectors, CICLO can gain insights into best practices, potential pitfalls to avoid, and new market trends. Moreover, trusted relationships established through networking can be invaluable in securing introductions and endorsements when seeking venture capital.

# 6.1.2 Developing a Cohesive Business Plan

At the heart of every successful company lies a clear, strategic vision. This vision, when articulated in the form of a comprehensive business plan, becomes the guiding star, illuminating the path forward. For CICLO, developing such a business plan is not just about documentation; it's about distilling the essence of its ambition, strategies, and value

proposition into a coherent narrative. A business plan is multifaceted. It delves deep into market research to understand the nuances of the industry and the company's position within that landscape. It showcases growth strategies, detailing how CICLO intends to tackle challenges and capitalize on opportunities. It presents a detailed financial forecast, painting a vivid picture of the company's current fiscal health and projecting its future trajectory. Armed with this business plan, CICLO stands in a position of strength when negotiating with potential investors, offering them a transparent view of its mission, strategies, and financial prospects.

# 6.1.3 Developing a Better Pitch to Obtain More Clients and get More Sales

In the realm of business, first impressions matter immensely, and nothing embodies this more than a pitch. A compelling pitch is more than a mere presentation; it's a carefully crafted narrative designed to captivate and persuade. For CICLO, refining its pitch goes beyond aesthetics and eloquence. It's about honing in on what makes CICLO unique and presenting it in a manner that resonates with its target audience. A good pitch elucidates the problem CICLO is solving, outlines its unique selling proposition, and offers tangible evidence of its potential for growth and success. Whether it's showcasing the unique value proposition of the company's eco-pavers, highlighting a notable partnership, or presenting impressive sales figures, a refined pitch positions CICLO in the best light. In essence, while a business plan provides the in-depth details, a pitch is the hook that grabs attention, making potential investors and clients eager to learn more about what CICLO has to offer.

## **6.2** Assessment of Alternatives

In order to find the best solution to solve the key problem of CICLO, several alternatives are evaluated according to different indicators which will be explained in this chapter. Table 9 gives a graphic overview of the three alternatives and their assessment.

**Table 9**Assessment of Proposed Alternatives

Assessment of The Proposed Alternatives						
Criteria	Weight (%)	Alternative 1: Networking with more businesses/ people	Alternative 2: Developing a cohesive business plan	Alternative 3: Developing a more compelling pitch		
Feasability	15%	10	10	10		
Added Value	20%	3	10	7		
Risk	15%	8	8	8		
Innovation	10%	5	9	8		
Cost of implementation	20%	3	3	3		
Importance for CICLO	20%	3	10	6		
Total Score	100%	4.50	6.53	5.70		

# 6.2.1 Networking with More Businesses/People (Average Rating: 5)

Pros: In an increasingly globalized business ecosystem, the adage 'it is not what you know, but who you know' has never been truer. By networking extensively, CICLO stands to gain access to a diverse and expansive range of potential investors and business partners.

These connections can lead to potential collaborations, partnerships, or funding opportunities. Additionally, networking offers an invaluable channel for gaining feedback on the business model. This feedback process can guide CICLO in refining its approach, strategies, and offerings. Furthermore, consistent and targeted networking can substantially elevate CICLO's brand visibility, imprinting its name and mission in the minds of industry stakeholders.

Cons: While the potential benefits of networking are vast, the process is notably time-consuming. Establishing genuine, productive connections often requires sustained effort and doesn't guarantee immediate results. There is also the reality that not all interactions will yield fruitful outcomes; some connections might remain dormant or not align with CICLO's immediate needs. Moreover, in the zeal to network and share the company's vision, there's a latent risk of disseminating company details too broadly, potentially exposing sensitive information to competitors or entities with conflicting interests. Additionally, the company feels as though they have an established network of businesses and individuals, hence why the rating is lower on the priority list.

## 6.2.2 Developing a Cohesive Business Plan (Average Rating: 8.17)

Pros: A comprehensive business plan offers a clear direction of where the business is headed. When thoughtfully constructed, it not only outlines CICLO's direction, objectives, and strategy but also serves as a testament to the company's foresight, and potential. The clarity and depth provided by a business plan can significantly enhance CICLO's credibility in the eyes of potential investors. It provides a structured view of the company's ambitions, backed by data and insights, making it an indispensable tool for potential investors. Beyond its external benefits, a business plan serves as an invaluable internal reference point, guiding growth, decision-making, and strategic pivots.

Cons: The creation of a truly impactful business plan is a labor-intensive process.

Crafting a document that effectively captures the essence of CICLO's vision, substantiated by market research, financial forecasts, and strategic initiatives, demands a significant time commitment. Moreover, such an endeavour requires expertise in various domains, from market analysis to financial planning. It is not a static document; the business landscape is in a state of constant flux. As such, the business plan must be updated periodically to stay

relevant, reflecting evolving market dynamics, shifts in company strategy, or changing financial projections.

#### 6.2.3 Developing a More Compelling Pitch (Average Rating 6.33)

Pros: A pitch, in its essence, is CICLO's business narrative distilled into its most potent form. When executed correctly, it can be a powerful tool to attract investors and clients. A compelling pitch can captivate an audience, spotlighting CICLO's unique value proposition and the problem it seeks to solve. It offers a snapshot of the company's vision, potential, and value, often serving as the first point of interaction between CICLO and potential stakeholders. Given its pivotal role, refining the pitch can substantially increase the chances of leaving a lasting impression and securing interest from its audience.

Cons: The art of pitching is dynamic and requires continuous refinement. As CICLO evolves and as feedback from various quarters trickles in, the pitch will need periodic adjustments to ensure it remains resonant and effective. Furthermore, the reception of a pitch can be highly subjective. What resonates deeply with one investor might leave another unimpressed. This inherent subjectivity makes it challenging to craft a universally impactful pitch. Moreover, while a pitch is a fantastic tool for initial engagements, it does not replace the need for a detailed business plan. A captivating pitch might grab attention, but it's the indepth details in a business plan that will solidify the interest and trust of serious investors.

#### **6.3 Definition of the Chosen Solution**

Upon detailed consultation and deliberation, it became increasingly evident that the key to addressing CICLO's challenges lay in the in-depth development of a comprehensive business plan. In accordance with CICLO it was chosen to be the best solution for the key problem. A business plan would serve as both a blueprint for internal guidance and a testament to external stakeholders of the company's viability and potential. The three central pillars of this business plan are:

#### 6.3.1 Financial Forecasting

While vision and strategy are vital, they must be anchored in tangible financial realities. The financial forecasting section will provide a lucid projection of CICLO's fiscal trajectory in the upcoming years. Investors and stakeholders will be presented with detailed anticipations of revenues, balanced against anticipated operational and capital expenses. Beyond mere numbers, this section will provide context, highlighting expected profit margins, potential risks, and strategies to optimize financial performance. Ultimately, the goal is to present a transparent, realistic, yet optimistic picture of CICLO's financial future, assuring investors of the potential for a lucrative return on their investment. With a dedicated commitment to this holistic approach, CICLO aspires to not merely secure pivotal funding from venture capital entities but also to fortify its foundational strategy, ensuring it is poised for robust growth and a commanding presence in its market.

#### 6.3.2 Market Analysis

Central to any business's success is a nuanced understanding of the marketplace it operates within. For CICLO, this means an exhaustive examination of the Peruvian market dynamics. The market analysis is not just a superficial overview but a rigorous investigation into various facets. Primarily, it will discern the competitive landscape, laying bare the key players, their strategies, and their market shares. A segment will be dedicated to pinpointing both the looming threats and the latent opportunities within this domain. As CICLO specializes in its eco-paver product, a keen focus will be directed towards understanding the target audience for this offering. This involves gaining insights into their buying behaviors, discerning factors that drive their purchase decisions, and comprehending the price points they're comfortable with. Additionally, this section will shed light on CICLO's main competitors, allowing the company to craft strategies that not only combat competitive threats but also leverage competitive advantages.

#### 6.3.3 Growth Strategy

With a firm grasp on the present market dynamics, the next step is charting the course for the future. The growth strategy will outline CICLO's ambitious vision for expansion. This will encompass potential new markets ripe for entry, be they geographical regions or customer segments. It will also highlight innovative product or service iterations that can further bolster the company's market positioning. The strategy is not limited to organic growth; it also explores potential collaborations and partnerships that can amplify CICLO's reach and influence. Whether it is aligning with a complementary business or harnessing new distribution channels, strategic alliances will be a key consideration.

In conclusion, the comprehensive exploration of solutions for CICLO's funding and investor challenges highlights the significance of a well-structured business plan as the preferred strategy. This approach offers not only immediate potential for securing funding but also long-term benefits, including enhanced credibility, strategic clarity, and data-driven decision-making. It signifies a commitment to sustainable growth and market understanding. By prioritizing the development of this business plan, CICLO is poised to navigate the competitive business landscape with a clear vision, sound financial forecasting, and a strategy that can attract investors and drive its success.

#### **Chapter VII: Proposed Solution: Business Plan**

This chapter focuses on the selected alternative for CICLO; writing a business plan.

The three different aspects, a financial forecasting, market analysis and growth strategy,
which are essential parts within a business plan, are analyzed and presented in the following.

#### 7.1 Financial Forecasting

For the analysis of the future production of the paving stones and of the additional production generated by the production of these, the following inputs to be used in production costs are displayed subsequently:

- Cement: S/ 0.25
- Additive: S/ 0.10
- Water: S/ 0.01
- Labor: S/ 0.15
- Recycled aggregate: S/ 0.00

The total cost of producing a paver is 0.51 soles, which may vary depending on the size and color, since CICLO also sells eco pavers with red pigments. CICLO has a selling price for pavers that varies between 1 - 1.20 soles depending on the channel where it is sold and the size of the lot. As was seen in the quantitative analysis chapter, CICLO has a reference price, which is UNICON, which also has a price similar to that of CICLO. In 2023 CICLO has sold (or received orders of) approximately 137,500 units of eco pavers as of October 2023. This information is the one documented to date. However, it is also possible to take approximate values given by the CEO who points out that in the year 2021 70,000 units were sold and the following year 20% more, being 84,000 units. Since only information up to October 2023 is available, sales will be projected with a linear regression to obtain data for the months of November and December. The sales of the pavers are demonstrated in Table 10.

**Table 10**Sales of pavers 2023

2023	UNITS
January	11,258
February	14,572
March	12,127
April	11,342
May	18,737
June	24,963
July	6,605
August	7,508
September	15,194
October	15,194
November	14,040
December	14,092

Note: Information was only available up to the month of October, so the missing months (November and October) were predicted with linear regression.

In the following, the approximate amounts published by the CEO of 70,000 units in 2021 and 84,000 in 2022 will be taken as a reference to assume the sales of pavers until the end of 2023 (see Table 11).

**Table 11**Sale of pavers from 2021 to 2023

	207 (00.00)	A V	
Month/ Year	2021	2022	2023
January	2,891	3,948	11,258
February	5,092	6,405	14,572
March	6,281	7,101	12,127
April	5,375	6,321	11,342
May	8,079	9,808	18,737
June	10,784	11,244	24,963
July	5,624	3,650	6,605
August	3,107	3,885	7,508
September	3,566	6,786	15,194
October	7,501	8,663	15,194
November	6,994	7,705	14,040
December	4,706	8,485	14,092
Total	70,000	84,000	165,631

Note: In order to obtain these numbers, the behaviour of the data in the year 2023 was taken into account, to make an inverse linear regression with the help of random numbers so as not to have a distribution of sales equal to that of the year 2023.

As indicated by Figure 8, a distinct correlation coefficient is not evident. Consequently, there is a need for the application of seasonal adjustments to annual sales data. This adjustment process is undertaken to mitigate data fluctuations and, in turn, augment the precision of sales forecasts for future years.

Figure 8
Seasonal sales

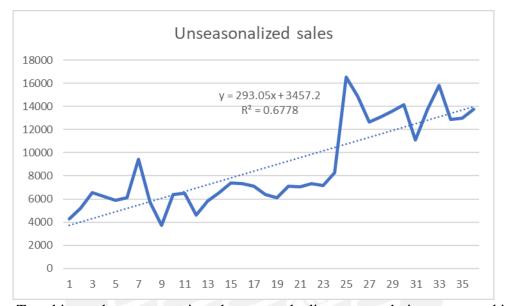


Note: The graph represents the evolution of sales from 2021 to 2023, for which a linear regression is performed.

In Figure 9, the correlation coefficient approaches 0.7, suggesting reduced data dispersion and increased forecast accuracy. The new linear regression formula is then used to predict sales for upcoming years. This prediction takes into account the construction sector's growth in the past 11 years (2012 - 2022), as indicated by BCR data for better alignment with CICLO's industry. It also extends this analysis to forecast growth for the years 2023 to 2027 (BCR, 2023).

Table 12 outlines the forecasted units sold from 2023 to 2027, while Table 13 presents the expected growth of the construction sector in Peru's total GDP, using data from 2012 to 2022.

**Figure 9** *Non-seasonal sales* 



Note: To achieve a better regression, the seasonal adjustment technique was used in order to have less data dispersion and therefore a better sales forecast.

**Table 12**Sales forecast

Month/ Year	2023	2024	2025	2026	2027
January	11,258	10049	12507	14960	17409
February	14,572	14773	18313	21847	25374
March	12,127	14747	18210	21667	25119
April	11,342	13580	16708	19830	22947
May	18,737	22005	26977	31940	36894
June	24,963	28769	35147	41514	47871
July	6,605	9901	12056	14208	16355
August	7,508	9208	11175	13140	15101
September	15,194	16512	19978	23439	26894
October	15,194	20625	24880	29127	33368
November	14,040	19230	23129	27021	30907
December	14,092	18567	22268	25963	29652

Growth	97.2%	19.52%	21.91%	17.94%	15.19%
Total	165,631	197965	241347	284654	327891

Note: With the help of seasonal adjustment and linear regression it was possible to obtain the following pavers units for the following years (2023-2027)

Table 13

Construction Sector Growth Forecast (GDP Peru)

Year	Growth
2023	2.11%
2024	3.44%
2025	3.32%
2026	3.22%
2027	3.12%

Note: The growth of the construction sector in Peru's total GDP is forecast, taking data from 2012 to 2022.

The gross profit growth (see Table 14) is 18.64% on average per year. This is additional revenue for CICLO to the business line of selling ecofriendly products since the eco paver that the company proposes has a gross profit/sales ratio of 49% in all years approximately.

Table 14

Gross Profit Forecast

2023	2024	2025	2026	2027
S/ 165,631	S/ 197,965	S/ 241,347	S/ 284,654	S/ 327,891
-S/ 41,407.83	-S/ 49,491.21	-S/ 60,336.85	-S/ 71,163.47	-S/ 81,972.84
-S/ 16,563.13	-S/ 19,796.48	-S/ 24,134.74	-S/ 28,465.39	-S/ 32,789.14
-S/ 1,656.31	-S/ 1,979.65	-S/ 2,413.47	-S/ 2,846.54	-S/ 3,278.91
-S/ 24,844.70	-S/ 29,694.72	-S/ 36,202.11	-S/ 42,698.08	-S/ 49,183.71
S/ 81,159.34	S/ 97,002.76	S/ 118,260.23	S/ 139,480.41	S/ 160,666.78
	S/ 165,631 -S/ 41,407.83 -S/ 16,563.13 -S/ 1,656.31 -S/ 24,844.70	S/ 165,631 S/ 197,965  -S/ 41,407.83 -S/ 49,491.21 -S/ 16,563.13 -S/ 19,796.48 -S/ 1,656.31 -S/ 1,979.65 -S/ 24,844.70 -S/ 29,694.72	S/ 165,631       S/ 197,965       S/ 241,347         -S/ 41,407.83       -S/ 49,491.21       -S/ 60,336.85         -S/ 16,563.13       -S/ 19,796.48       -S/ 24,134.74         -S/ 1,656.31       -S/ 1,979.65       -S/ 2,413.47         -S/ 24,844.70       -S/ 29,694.72       -S/ 36,202.11	S/ 165,631       S/ 197,965       S/ 241,347       S/ 284,654         -S/ 41,407.83       -S/ 49,491.21       -S/ 60,336.85       -S/ 71,163.47         -S/ 16,563.13       -S/ 19,796.48       -S/ 24,134.74       -S/ 28,465.39         -S/ 1,656.31       -S/ 1,979.65       -S/ 2,413.47       -S/ 2,846.54         -S/ 24,844.70       -S/ 29,694.72       -S/ 36,202.11       -S/ 42,698.08

Note: As CICLO has 2 lines of business, the evaluation is only the project to increase the

sales of the Eco Pavers, this gross profit does not take into account the other line of business.

#### 7.2 Market Analysis

At present, CICLO has made an impressive stride in its journey by securing ten active customers who advocate and utilize their eco-pavers (see Table 15). All customers value sustainable practices and incorporate eco-friendly behavior in their business operations. The company's sales metrics further validate their steady growth, ringing in at S/ 137,499.21. The ambition does not stop here for CICLO. With a forward-looking vision, they are aiming to double these sales figures in the forthcoming year. This ambitious target is not without a strategy. It is recommended that CICLO refine their sales pitch to elevate their appeal to potential customers. Additionally, CICLO should start striving for ongoing contract work which can assure consistent business.

**Table 15**Current Customer Base

COMPANY	AMOUNT
BESCO SAC	S/ 9,114.56
COBRA PERU S.A.	S/31,857.53
GYTRES SAC	S/ 1,200.00
INVERCIONES JF 108 S.A.C	S/ 4,681.98
MIRANDA CONSTRUCTORES S.A.	S/ 12,508.35
MODAS DIVERSAS DEL PERU SAC	S/ 6,575.20
NEXA RESOURCES PERU S.A.A.	S/ 12,127.21
OILTECH PERU SAC	S/ 14,055.22
PERU LNG S.R.L.	S/ 39,921.76
VICCA VERDE	S/ 5,457.40

Note: This This information corresponds to the sales of Ecopavers corresponding to the year 2023 in the months of (January - October).

Analyzing the purchasing habits of CICLO's existing clientele, a pattern emerges.

These customers prioritize eco-friendly alternatives, particularly when the cost aligns with conventional options. They appreciate the value proposition presented by CICLO's eco-pavers, not only in terms of monetary cost but also the environmental footprint. Given that

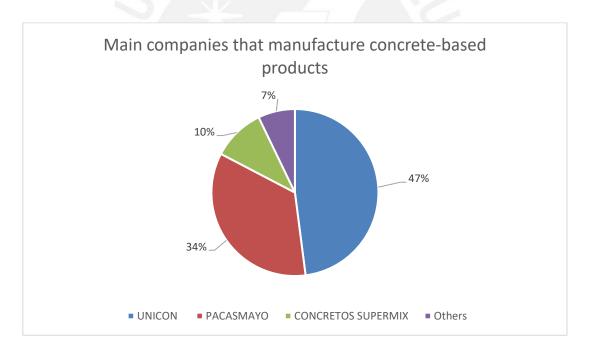
the price point of CICLO's eco-pavers is competitively priced, the potential target market is considerably vast. Essentially, every individual or entity in need of pavers stands as a prospective customer. The rationale is clear: why opt for a regular paver when an eco-paver, priced cheaper, offers environmental benefits?

#### 7.2.1 Market Share

For the market share analysis of specific companies, there are those that manufacture products based on this material. Therefore, for the analysis of the market, the participation of concrete supplier companies will be taken into account (see Figure 10).

Figure 10

Market share of concrete producing companies (Peru)



Note: This data was collected from Maximixe and is compared for the year 2021 where sales of concrete-based products were S/1,823 million (MAXIMIXE, 2022).

CICLO currently has a 0.35% share in the specific paver market in 2021, production that year was approximately 24 million units and CICLO produced 84 thousand that year (MAXIMIXE, 2022). With this can see that there is a large potential market in Peru for this type of market, approximately 7% of the consumers of pavers are not being covered by the

large pre-mixed concrete companies approximately 1.68 million units of pavers. Furthermore, CICLO stands as the pioneering company in Peru, possessing a distinctive edge in the realm of sustainability while maintaining competitive pricing akin to industry giants like UNICON. UNICON sells pavers in the range of 1 to 1.20, mirroring CICLO's pricing strategy, as CICLO serves as the yardstick for establishing paver prices in the market.

#### 7.2.2 Market Prices

In Peru, pavers are typically sold by the square meter. Numerous companies are engaged in the sale of these materials, and a comprehensive assessment is required to gauge the extent of CICLO's competitiveness in this market. With this price analysis CICLO has a competitive price in line with the market; in addition, CICLO has the competitive advantage of being sustainable by using 100% recycled aggregates collected by the company itself. This can be seen in the following Table 16.

Table 16

Market price of pavers

	Price (m2)	Price (unit)
Casa Rosello	S/ 85.5	S/ 1.71
Tasayco	S/ 65	S/ 1.3
UNICON (Promart)	S/ 51	S/ 1.02
CICLO	S/ 50	S/ 1

Note: These prices were compiled from the websites of the companies listed in this table.

#### 7.3 Growth Strategy

To advance the company's future, different steps can be undertaken. In the following, two important steps, one regarding new employees in the field of construction assistance, marketing and promotion, and finances, and one regarding possible partnerships will be discussed.

#### 7.3.1 Enhancing Operations Through Employee Recruitment

In this critical stride towards operational improvement, CICLO will focus on hiring a skilled production assistant. This essential role acts as the backbone of the company's manufacturing operations, contributing to the realization of its mission. However, CICLO is already looking several weeks for an appropriate candidate, which is difficult due to the location of the plant being hard to reach because it is outside of Lima. Also, proper candidates need skills and motivation in the application of sustainable construction techniques, and upholding the elevated standards that underscore CICLO's eco-conscious practices. The significance of this role is underscored by its far-reaching impact on the overall production cycle. The production assistant functions as a pivotal link, orchestrating manufacturing activities and driving operational efficiency. Their expertise in selecting sustainable materials and implementing innovative construction methods further accentuates CICLO's steadfast commitment to environmental stewardship. Beyond this, the role of the production assistant extends to fostering synergy between departments, facilitating clear communication, and strengthening collaboration across different operational dimensions.

In a next step, CICLO should aim for hiring a marketing employee. The marketing employee's role stands as a linchpin in formulating and executing strategies that amplify CICLO's visibility, entice potential customers, and engage investors. Armed with a repertoire of skills encompassing market analysis, branding, content creation, and digital outreach, this professional ensures the dissemination of CICLO's message to a broader audience, striking a chord with stakeholders, and generating interest in the company's offerings. The role significance embraces the employee's expertise in various marketing channels, bolstering CICLO's brand presence, nurturing customer relationships, and propelling the company's growth trajectory. Their adeptness in both digital and Social Media marketing, alongside

conventional advertising mediums such as print advertisements in newspapers and broadcast advertising on radio and television, widens the scope of CICLO's marketing initiatives.

Moreover, another vacancy CICLO has to fill is the position of an employee in the financial department. This crucial position takes on the responsibility of reorganizing the company's financial operations, addressing the current state of disorder, and aligning them with the thorough standards required to attract potential investors. The financial team member plays a vital role in restoring structure to the financial landscape, thereby laying a solid foundation for engaging investors and forming prospective partnerships. The significance of this role is highlighted by its extensive impact on CICLO's overall financial health. The financial team member acts as a central figure in coordinating financial processes, rectifying inconsistencies, and ensuring the accuracy and completeness of financial documentation. Their proficiency in financial analysis, record management, and careful attention to detail is essential in producing reliable financial reports, a critical element in building investor confidence. Furthermore, the financial team member collaborates closely with other departments, aligns financial objectives with broader organizational goals, and fosters a culture of transparency regarding finances.

CICLO's pursuit of ideal employees in the three mentioned areas is guided by candidate personas, ensuring alignment with the company's vision and mission. These profiles offer a blueprint for identifying the right fit, taking into account traits, skills, and values that resonate with CICLO's ethos. An illustrative example of such candidate personas for all three positions mentioned is showcased in Figures 11 to 13.

Figure 11 Candidate Persona for CICLO's new Production Assistant

# **Profile**

energetic and forwardthinking; brings several years of experience in facilitating efficient operations and ensuring high-quality output; a keen eye for detail and a proactive approach to problem-solving

# **Vision**

aiming to enhance production efficiency through meticulous detail management and proactive problem-solving, contributing to CICLO's pursuit of excellence in every endeavor



# **Demographic**

Age: 20-45 school diploma, background in engineering

Location: Lima

# **Interests**













Figure 12 Candidate Persona for CICLO's new Marketing Employee

# **Profile**

a dynamic and innovative marketing professional; several years of experience in sustainable and eco-friendly brand promotion; passion for environmental sustainability is perfectly aligned with CICLO's mission

# Vision

Empowering brands through innovative strategies. Fostering connections and driving growth with compelling narratives. Elevating businesses while embracing evolving digital landscapes.



# **Demographic**

**Age:** 20-45

Education: Bachelor's in Marketing

Location: Lima

# **Interests**







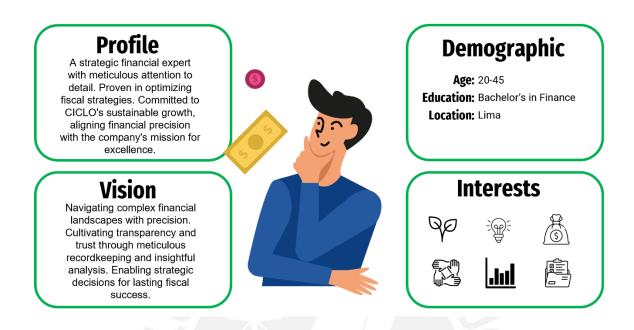






Figure 13

Candidate Persona for CICLO's new Finance Employee



Each employee will receive a base monthly salary of S/ 2,150. In addition to this, they will also be entitled to monthly gratuities of S/ 358.33 and a Compensation for Time of Service (CTS) of S/ 209.028. When these components are combined, each employee will receive a total monthly compensation of S/ 8,152.083. This breakdown is crucial for gaining insights into the financial structure of the hiring process and understanding the comprehensive benefits package offered to the new hires.

# 7.3.2 Diversifying and Expanding Through Ongoing Contract Work, Eco-Company Collaborations, and Strategic Partnerships

In this pivotal step of CICLO's growth strategy, the company should focus on diversifying and expanding their market presence by engaging in ongoing contract work, establishing collaborations with eco-conscious companies, and forging strategic partnerships in the sustainable construction sector. These initiatives will reinforce CICLO's position as a leading player in the industry and enable the company to capture untapped opportunities for growth.

The first step in how to approach this strategy is by doing ongoing contract work.

CICLO will proactively seek ongoing contract opportunities with construction projects aligned with its eco-friendly ethos. By consistently delivering high-quality sustainable construction materials and services, the company aims to cultivate long-term relationships with clients who share its commitment to environmental responsibility. This approach is expected to provide a steady revenue stream and bolster CICLO's reputation as a reliable and environmentally conscious partner in the construction industry.

Second, by establishing collaborations with established eco-conscious companies, their expertise and networks are leveraged to amplify the reach. Joint initiatives could include co-hosted events, shared marketing campaigns, and mutually beneficial projects that showcase our collective dedication to sustainable practices. These collaborations will not only expand the customer base but also enable knowledge exchange and innovation.

Strategic partnerships with companies specializing in eco-friendly housing solutions will be instrumental in driving growth. These partnerships could involve bundling CICLO's sustainable construction materials with their housing offerings or co-developing innovative sustainable housing projects. By aligning efforts, a broader market segment is established creating a comprehensive value proposition for eco-conscious consumers.

The implementation of this growth strategy offers several key benefits to CICLO. Firstly, the pursuit of ongoing contract work contributes to revenue diversification by establishing a consistent income stream, thereby minimizing reliance on sporadic one-off projects. Additionally, forging collaborations with reputable eco-conscious enterprises elevates the company's brand visibility and extends its market reach, fostering heightened recognition within the industry. The cultivation of strategic partnerships with eco housing providers generates value by enabling CICLO to offer comprehensive, integrated sustainable solutions to a broader audience. Lastly, leveraging the established networks of these strategic

partners facilitates accelerated market penetration and enhanced customer acquisition, reinforcing CICLO's position as a leader in the sustainable construction sector.

Possible partners which could be approached include, among others (a) JDG Inmobiliara, <a href="https://ecoybionegocios.pe/negocios/jdg-inmobiliaria/">https://ecoybionegocios.pe/negocios/jdg-inmobiliaria/</a>, (b) Ecobuildtec, <a href="https://www.ecobuildtec.com/">https://www.ecobuildtec.com/</a>, and (c) Fondo Mivienda.

#### 7.3.3 Expansion of Sales in the Real Estate Sector

There are currently 327 projects in need of the mi vivienda fund in metropolitan Lima, and under the criteria of the mi vivienda sostenible fund there are 251 projects that apply to incorporate sustainability criteria in their design and construction, thus decreasing the impact on the environment (Mi vivienda verde, 2023). New projects in Peru and specifically in metropolitan Lima need to repeat these criteria to be more attractive to consumers. CICLO can approach these projects and be able to show how its products such as PAVERS are ecofriendly and in line with the Peruvian government's requirements.

CICLO already has clients in the real estate sector, such as BESCO. This is a company committed to the environment and sustainable development that has been a client of CICLO since the beginning of the sale of pavers. BESCO has a program called ECO-BESCO, which are real estate projects that seek to contribute to the care of the environment, energy efficiency and resource saving (BESCO, 2023). CICLO has also partnered with FLESAN, a company that, like BESCO, is involved in civil, mining, energy and public works projects (FLESAN, 2023). The Peruvian state requires that construction and public works are under the guidelines of human development and environmental sustainability (MEF, 2009). These two cases (see Figure 14) represent opportunities in the development of the sustainable construction sector. Since CICLO is a company with sustainable values and criteria which is committed to eco-friendly development, there is a great opportunity for the company to work with other businesses that follow this same line with a main focus in sustainability.

Figure 14

CICLO's most important clients in the real estate industry



For this purpose, two leading companies which have projects in the process of being developed and which follow the same line of CICLO will be analyzed. Los Portales is a leading company in the housing sector, it has projects of the fund my housing and sustainable housing given by the Peruvian government. For example, one of their projects is CASAS de Chilca, promoted by the fund my housing in the KM 65 of the Panamerican highway south. It also includes condominiums and new urbanized areas mainly in the south of Lima with eight projects in total (Los Portales, 2023). Another leading company in the real estate sector committed to ESG criteria (environmental, social and corporate governance) is Centenario. The company seeks to grow sustainable cities and reduce carbon emissions, all in alignment with the following SDGs: creating sustainable cities (SDG 11), promoting decent work and economic growth for the prosperity of families (SDG 8), building resilient infrastructure that promotes inclusive and sustainable industrialization (SDG 9) and taking urgent action to combat climate change and its impacts (SDG 13) (CENTENARIO, 2022). Centenario has major projects in the south and north of the city to date. In the south of Lima, one project of approximately 653 km2 (see Figure 15), is planned (Google maps, 2023). In its first stage, this project needs approximately 455,000 units of pavers (Interview Roger Mori, 21 August 2023). This order visualizes the approximate number of pavers needed for other projects in Lima with similar sizes. With this data, CICLO can focus on strategic sites such as Lima Norte and Lima Sur, emerging areas of Lima that need these eco-paver products.

Figure 15

Condominium Montemar Project (Google maps, 2023)



Note: The approximate area of the Centenario project in the south of Lima was taken.

#### 7.3.4 Retail Sales Growth

CICLO's main sales channel is direct sales to companies that request its products. However, CICLO has an additional retail sales channel with its strategic ally Sodimac. With this strategic ally, CICLO sells its products at 0.8 soles and the retail company sells them at 1.20 sol per eco paver. This exposure to the retail market allows the company to become better known and gain more market share. Sodimac has requested approximately 80,000 units of pavers per month from CICLO for its new contract. This amount ensures sales for the following months and revenues from this channel can be added to CICLO's revenue streams (see Table 17) (Interview Roger Mori, 21st August 2023).

#### 7.3.5 Future Demand Forecast

**Table 17**Forecast with growth strategy

Year	2021	2022	2023	2024	2025	2026	2027
Construction sector growth (BCRP)		2.98%	2.11%	3.44%	3.32%	3.22%	3.12%
Current Forecast (CICLO – PEN)			S/ 165,631. 31	S/ 197,964. 82	S/ 241,347. 41	S/ 284,653. 89	S/ 327,891. 38
Market Share progress		T	ENA	0.90%	1.25%	1.25%	1.25%
Total Pavers Per Year PERU (PEN)	S/ 24,000,0 00.00	S/ 24,714,9 89.28	S/ 25,235,2 41.77	S/ 26,102,4 07.96	S/ 26,969,5 74.14	S/ 27,836,7 40.33	S/ 28,703,9 06.52
Market Share	37	$\star$	7-2	S/ 234,921. 67	S/ 579,845. 84	S/ 946,449. 17	S/ 1,334,73 1.65
New Forecast			S/ 165,631. 31	S/ 432,886. 50	S/ 821,193. 25	S/ 1,231,10 3.06	S/ 1,662,62 3.03

Note: The new sales forecast is based on the growth of the construction sector and additionally on a market share of 5% by the end of 2027.

Table 17 was generated by considering the annual growth projections of the construction sector in Peru (as detailed in Table 13). In addition, the desired market share was taken into account, aiming to cover 5% of the market by the end of 2027. This growth is progressive, commencing in 2023, with an initial market share of 0.35% in the pavers market. An annual increase of 1.25% in market share is anticipated in the subsequent years. This growth aligns with the inherent expansion of the pavers market, as indicated in Table 14.

## 7.4 Conclusion

After a comprehensive review of CICLO's current position and future growth strategy, several key takeaways emerge. The company has impressively established a solid customer base, with a sales total of S/ 137,499.21, and has set a commendable vision to double this

figure. CICLO's customers reflect a strong inclination towards eco-friendly solutions, and with pricing comparable to conventional products, the potential market size is expensive. Moreover, CICLO's strategic operational enhancement through employee recruitment in production, marketing, and finance aligns with its vision, but success hinges on finding ideal candidates. Finally, CICLO's pursuit of ongoing contracts, collaborations with eco-companies, and strategic partnerships emphasizes its commitment to diversifying revenue streams and bolstering market presence. This multi-pronged approach, grounded in sustainability and strategic expansion, sets CICLO on a trajectory for future growth and industry leadership.

In terms of the financial and forecasting part, it is essential to obtain historical data to be able to have a better forecast. The operations that CICLO has for this new product are good since the growth forecasts give between 15% to 20% growth over the forecast years, with an acceptable correlation coefficient of 0.67 thanks to the seasonality smoothing despite the limited information. With the additional profits obtained, one could proceed to decrease the financial leverage and reinvest the money in the company in order to increase the equity and not depend so much on the company's loans, this would increase the ROIC and make CICLO more attractive for future investment.

#### **Chapter VIII: Implementation Plan & Key Success Factors**

Chapter 8 within this report delineates the strategic plan for implementing the proposed solution. Following the identification and discussion of the problem, the organization acknowledged the significance of the solution's components after engaging in discussions with key stakeholders. In this chapter, a phased implementation strategy is presented, closely aligning with the key components of the solution outlined in the preceding chapter. The objective is to furnish a comprehensive roadmap, inclusive of detailed information and an activity calendar, aimed at effectively guiding the implementation process.

#### 8.1 Activities

# 1. Receipt of the plan

Responsible: The Chief Executive Officer (CEO) is in charge of receiving the initial project plan. This task will be carried out from day 1 to day 7. During this period, the CEO will be the focal point for the receipt of the project vision and objectives. His task is, amongst others, to adapt the points he wants to modify.

## 2. Hire Operations Representative

Responsible: The Human Resources team assumes responsibility for hiring an operations representative. This assignment will take from day 8 to 28. The hiring of an operations expert is crucial to ensure that the company has the necessary expertise in this key area, starting with analyzing production. This process will take three weeks. A difficulty is that the person in charge has to be in the production plant in Cieneguilla, which is relatively outside of the urbanized area of Metropolitan Lima.

# 3. Production Planning

Responsible: The Operations Analyst will lead production planning from day 29 to day 36. During this period, the processes and logistics necessary for the efficient production of eco pavers will be defined, the hours that operators must use to be able to work in the two

lines of the business will be adapted, the quantity of pavers to be produced will be planned. inputs will be defined and performing inventory work has to be done.

#### 4. Hiring a financial representative

Responsible: The Human Resources team is also responsible for hiring a financial representative. This task will be carried out from day 15 to day 28. A financial expert will play a crucial role in managing the project's financial resources. This process will take two weeks as the work can be developed in a hybrid manner.

#### 5. Financial Management

Responsibility: The Financial Analyst assumes responsibility for putting the project's finances in order from the day 29 to the day 113. During this time, a thorough analysis of the financial aspects will be made and the basis for a solid budget will be established. Analyzing in depth the administrative expenses which are high, reorganizing the loans that CICLO has with the banks and proposing new financial instruments are tasks of the financial analyst.

#### 6. Cost Management

Responsible: The Finance and Operations team will collaborate on cost management from day 29 to day 43. This task involves a joint focus on optimizing financial and operational resources to ensure efficiency. Detailing costs by operation and resource consumption in detail, these include using costing techniques such as ABC costing, separating the cost into activities to have a product cost according to reality.

#### 7. Create a prospect database

Responsible: The CEO will lead the creation of a prospect database from day 15 to day 28. This database will be essential for future marketing and sales strategies. This will be done so that the marketing specialist will have a starting point to make strategic sales proposals, evaluate customer retention, and improve customer relationships.

#### 8. Hire Marketing Representative

Responsibility: The Human Resources team will manage the recruitment of a marketing representative, which unfolds from day 22 to day 35. This professional will be instrumental in promoting the eco pavers and develop a strategic marketing plan.

#### 9. Validate demand

Responsible: The Marketing Analyst assumes the task of validating demand from day 29 to day 42. This will involve researching and analyzing the market to understand customer needs and preferences. With the business plan as a starting point, he/she will be able to locate demand and projected demand, and potential customers.

## 10. Digital Marketing Plan

Responsible: The Marketing Analyst will lead the planning of the digital marketing plan from day 15 to day 77. During this period, online marketing strategies will be designed to reach a wider audience. CICLO mainly sources its sales as it is a B2B company but to reach any audience it will need to improve the branding strategy, optimize web search, and generate a potential customer base.

## 11. Unique Advantage Proposition (USP)

Responsible: The Marketing Analyst will continue to develop the Unique Selling Point (USP) from day 71 to day 84. This proposal will underline the competitive advantages of eco pavers, which already have an advantage which is the use of recycled material and exhibits all the necessary certifications that corroborate that it is a reliable and resistant product.

#### 12. Prepare a presentation

Responsible: The CEO will assume responsibility for preparing a from day 29 to day 98. This presentation will be instrumental in communicating the vision and business plan to potential investors.

#### 13. Submit business plan to major investors

Responsible: The CEO will be in charge of sending the business plan to the main investors from day 113 to day 133. This task is crucial to ensure the necessary financial backing for the project, making it known that CICLO is a company with a lot of projection and with the purpose of growing the company to continue collaborating with the environment and make the construction industry in Peru more sustainable.

#### 14. Receiving feedback

Responsible: All team members will participate in receiving feedback from day 127 to day 140. This will allow comments and opinions to be gathered from all parties involved.

Investors will comment on whether or not the proposal to invest in CICLO seems appropriate to them and take it into consideration.

#### 15. Documentation of information

Responsible: The CEO will complete the project by documenting all relevant information from day 134 to day 140. This will include collection of key data and preparation of necessary records for future reference.

## 8.2 Implementation: Gantt Chart

The presented Gantt chart (see Figure 16) is an essential tool in project management that provides a structured view of the tasks, responsibilities and deadlines in a business project described above. From the receipt of the initial plan by the CEO to the hiring of key personnel, production planning, financial management and marketing strategy, this diagram concisely and effectively details the sequence of activities critical to the success of the project, ensuring the assignment of responsibilities and compliance with established deadlines.

Figure 16

Gantt Chart - CICLO

					Mor	nth 1			Mor	nth 2			Mor	nth 3			Mor	nth 4			Mon	nth 5	
TASK	PERSON IN CHARGE	START	END	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
																						L	
Recruitment and planning																						Ь	
Reception of the plan	CEO	1	7		n r																	L	
Hire operations representative	HUMAN RESOURCES	8	28																			L	
Production planning	OPERATIONS ANALYST	29	36	1000			M															<u> </u>	
Hire Finance Representative	HUMAN RESOURCES	15	28						1													1	
Order finances	FINANCIAL ANALYST	29	113																			1	
Cost management	FINANCES & OPERATIONS	29	43																			1	
Build a database of potential customers	CEO	15	28		7																	1	
Hire Marketing Representative	HUMAN RESOURCES	22	35			1																1	
Validate the demand	MARKETING ANALYST	29	42							10												1	
Digital marketing plan	MARKETING ANALYST	15	77		1																	1	
Unique Selling Proposition (USP)	MARKETING ANALYST	71	84			7				_												1	
Investment search phase						11		$\sim$														1	
Prepare a pitch	CEO	29	98			10																1	
Send the business plan to the main invest	CEO	113	133																				
Receive feedback	EVERYONE	127	140			49		18	6	1													
Documentary information	CEO	134	140					71														1	

Note: This Gantt chart was made with a life cycle of 5 months, but it can vary and last more months

The period of execution of the business plan is 140 days spread over five months where with the help of the hiring of the three specialists are given the tasks to be accomplished in the given time, in order to be able to apply for funding and demonstrate that CICLO is a company that has significant traction and from month six could start with this task, but first it is necessary to organize the finances, clarify the operations and costs, and a strategic marketing plan to publicize CICLO.

## 8.2.1 Project EBIT Calculation

As a first step, earnings before interest and taxes (EBIT) will be calculated (see Table 18) to have a vision of CICLO's purely operating performance in future years.

Table 18

Project EBIT Calculation

Year	2023	2024	2025	2026	2027
Sales	S/	S/	S/	S/	S/
	165,631.31	432,886.50	821,193.25	1,231,103.06	1,662,623.03
Costs			5/177		
Operations					
(-)Cement	-S/	-S/	-S/	-S/	-S/
	41,407.83	108,221.62	205,298.31	307,775.77	415,655.76
(-)Additive	-S/	-S/	-S/	-S/	-S/
	16,563.13	43,288.65	82,119.33	123,110.31	166,262.30
(-)Water	-S/	-S/ 4,328.86	-S/ 8,211.93	-S/ 12,311.03	-S/ 16,626.23
	1,656.31				
(-)Labor	-S/	-S/	-S/	-S/	-S/
	24,844.70	64,932.97	123,178.99	184,665.46	249,393.45
<b>Gross Profit</b>	S/	S/	S/	S/	S/
	81,159.34	212,114.38	402,384.69	603,240.50	814,685.29
(-)	-S/	-S/	-S/	-S/ 12,457.12	-S/ 12,457.12
Depreciation	12,457.12	12,457.12	12,457.12		
EBIT	S/	S/	S/	S/	S/
	68,702.22	199,657.26	389,927.57	590,783.38	802,228.17
) I	1 0		1 1		

Note: The data are taken from the previous calculations in tables 14 and 16.

## 8.2.2 Net Working Capital (NWC)

For the calculation of the Net Working Capital (see Table 19) the percentage of this ratio compared to the sales of the previous years of CICLO (2020 - 2022) was taken into

consideration. By doing so, an approximate amount of capital needed to be able to operate can be given, which in this case is 15% of the total sales.

**Table 19**Net Working Capital Forecast

	2023	2024	2025	2026	2027
NWC	S/ 24,844.70	S/ 64,932.97	S/ 123,178.99	S/ 184,665.46	S/ 249,393.45

Note: Net Working Capital is the short-term investment needed to be able to operate in the short term.

# 8.2.3 Salaries of the new Workers

In the part of the growth strategy, the new employees that CICLO needs, in order to be able to develop a business plan and to have the necessary ability to grow, were shown. These are a finance analyst, a marketing analyst and an operations analyst, each with a gross salary of S/2,150 each (see Table 20).

**Table 20**Salaries of the new workers

People	3
Salaries	2,150.00
Gratification	358.33
CTS	209.028
Salarie (month)	8,152.083

Note: Salaries in Peru have contributions such as bonuses and compensation for time of service, both of which are paid twice a year but in different months.

# 8.2.4 Projected Cash Flow

Table 21 displays the projected cash flow. In this analysis, NOPAT was used, encompassing the entire operational profit, excluding all types of financial expenses. Depreciation was added, considering its function solely as a tax shield and not as usable operational funds. The calculation incorporated the annual net working capital variation and accounted for capital

expenditure. This expenditure covered a period of four years, which corresponded to the contract duration for the three new workers crucial to CICLO's business plan in this study. It is worth noting that the free cash flow analysis does not rely on any form of financing.

Instead, it hinges on the accumulated cash flow to identify the break-even point, which is evident in the first year of the project.

Table 21

Projected cash flow

Year	0	7 11 N	2	3	4
NOPAT =		S/	S/	S/	S/
<b>EBIT*(1-t)</b>	113	140,758.37	274,898.94	416,502.28	565,570.86
(+) Depreciation	71 77	S/	S/	S/	S/ 12,457.12
		12,457.12	12,457.12	12,457.12	
(+/-) VAR NWC	-S/	-S/	-S/	-S/	S/
	24,844.70	58,246.01	61,486.47	64,728.00	249,393.45
OPEX	-S/				
	391,300.00	1			
				71	
Free Cash Flow	-S/	S/	S/	S/	S/
	416,144.70	94,969.48	225,869.59	364,231.41	827,421.43
<b>Cumulative cash</b>	-S/	-S/	-S/	S/	S/
flow	416,144.70	321,175.22	95,305.63	268,925.78	1,096,347.21
) T . (T)	1.0	2022 1:1:		0 . 2025 1	

Note: The years correspond from 2023 which is shown as year 0 to 2027 which is year 4.

#### 8.2.5 Net Present Value and Internal of Return Results

To interpret the project results, it is essential to consider the opportunity cost, which is determined by the Weighted Average Cost of Capital (WACC) (see Table 6) resulting in a rate of 20.81%. The Net Present Value (NPV) stands at S/412,250.88, signifying that the present value of the investment funds, adjusted to today's value over four years, equals this amount. It is important to note that a positive NPV is generally recommended when evaluating a project. The Internal Rate of Return (IRR) for this project is 52%, indicating its viability. This IRR surpasses the WACC of 20.81%, further emphasizing the project's feasibility. These findings are presented in Table 22.

**Table 22**Net Present Value and Internal of Return Results

WACC	20.81%
NPV	S/ 412,250.88
IRR	52%

Note: Results of the Weighted Average Cost of Capital (WACC), Net Present Value of the project (NPV) and Internal Rate of Return (IRR).

## 8.2.6 Investment Proposal Payback

With the cash flow it is possible to determine the payback period as displayed in Table 23. At this point it can be seen that the payback period of the investment is 2 year 3 months and 4 days from the day of project implementation.

Table 23

Investment proposal payback

	Years	Months	Days
<b>PAYBACK</b>	2	3	4

Note: Payback period calculated on the basis of the cumulative cash flow results

## 8.3 Key Success Factors

This section focuses on the identification of Key Success Factors of the proposed solution for CICLO, based on enablers that increase the likelihood of the solution being successfully implemented, as well as risks the solution brings along and their countermeasures.

#### 8.3.1 Enablers

Based on the strengths and opportunities of the company, in combination with the proposed solution to foster those even more in a positive sense, different factors that increase the likelihood of success of the proposed solutions, so called enablers, can be defined. Those enablers are displayed in Table 24.

Table 24

Enablers based on the Strengths of CICLO and the suggested Solution

STRENGHTS OF CICLO	ENABLER	KEY ACTIONS TO ENSURE IT
Growing construction industry in Lima	Industry Expertise	Hire or consult with industry experts to align offerings with industry trends and demands.
Increasing demand for sustainable construction methods	Collaborative Culture	Foster an environment where team collaboration leads to innovative solutions for sustainability needs.
Increasing willingness to invest in more sustainable materials and waste management	Financial Resources & Financial Forecasting	Allocate resources strategically based on accurate forecasts to invest in R&D and solutions.
Limited competition in the eco-friendly materials and waste management market	Market Data & Industry Expertise	Leverage market data to assess competition and develop unique, competitive offerings.
Fighting against severe issues such as climate change	Communication Channels & Company Leadership	Inspire a mission-focused culture through effective communication and leadership

As the construction industry in Lima grows, there's a bigger need for materials and ways to manage waste. CICLO is great at providing eco-friendly solutions for this. They have experts who know a lot about this field and collect important information about the market. This helps them make smart plans. With more construction projects happening, more people will want CICLO's special services. In their business plan, CICLO focuses on these important factors that make them successful. They use their experts and gather data to understand the market well. This helps them plan what to do. They also look at how things might change financially. By using their strengths and these important factors, CICLO is ready to do well in the market, grow, and offer eco-friendly solutions to more people.

In today's world, people care more about how construction affects the environment. They want construction methods and materials that are kinder to the Earth. This creates a big need for eco-friendly solutions. If CICLO offers these alternatives, they can become a big player in the market. They'll be known for being environmentally friendly, which is what many customers want. Also, if the whole team works together, shares ideas and live a collaborative culture, CICLO can achieve its goals even better. So, while CICLO has a plan, it's these important factors that will make it work and lead to success.

In the context of CICLO, it's evident that the world is changing. A raising number of people and businesses are realizing the importance of being eco-friendly in construction and are willing to spend more on eco-friendly options. This isn't just about caring for the planet – it's also a smart financial move. For CICLO, this presents a great opportunity. Not only can they offer their eco-friendly solutions, but they might also attract funding and partnerships from those who want to support sustainable efforts. This trend also means that construction companies could be interested in using CICLO's solutions. To make the most of this chance, CICLO should also be ready for financial changes. Having a solid plan for money, along with understanding potential earnings, will make them strong even if things don't go exactly as expected. All of this adds up to a bright future for CICLO.

In the unique context of CICLO, a notable opportunity presents itself. The arena of ecofriendly materials and waste management reveals a scarcity of significant competitors. This situation positions CICLO favourably to establish its supremacy swiftly. This strategic advantage enables rapid market penetration, the establishment of industry benchmarks, and the shaping of customer expectations. Additionally, this advantageous position holds the potential for improved profit margins and distinctive branding. The critical enablers intrinsic to CICLO's business plan encompass the infusion of industry expertise, ensuring meticulous market analysis. In the realm of CICLO's operations, a distinct opportunity emerges as the company addresses the imperative challenge of combatting climate change. Aligning with this pivotal cause and offering practical solutions not only signifies societal responsibility but also garners noteworthy attention and support. CICLO is primed to benefit considerably from this alignment, solidifying its socially conscious brand image and attracting potential partnerships, endorsements, and even incentives or grants from dedicated organizations. This alignment capitalizes on enablers like transparent communication channels and prudent leadership, ensuring clear guidance and collaborative efforts across organizational levels. An unwavering commitment to continuous learning and technological integration further equips the team for agile execution. Feedback loops, feedback sessions or holding regular update meetings in general can help to foster transparent and clear communication.

#### 8.3.2 Risks

Considering CICLO's weaknesses and potential threats and amalgamating them with the suggested strategies for their enhancement, various factors that pose risks to the success of these solutions can be identified. Those risks are portrayed in Table 25.

**Table 25**Risks based on the Weaknesses of CICLO and the suggested Solution

Weaknesses	Risk Factors	Counter Arguments for CICLO's Weaknesses
Unclear regulations and too less pressure from the government	Accuracy of Market Analysis	Continuously update the market analysis, consider real-time data and trends, employ third-party experts for validation.
Economic disparities affecting construction practices	Ambitious Growth Strategy	Ensure growth targets align with potential, regularly review and adjust based on performance and changing circumstances.

Lack of specialized waste management technologies and knowledge about it	Unexpected Financial Volatilities	Maintain a contingency reserve, employ conservative forecasting, compare actual performance against projections.
Potential disruptions due to climate change	Lack of Support from Internal/ External Stakeholders	Conduct regular communication and feedback sessions, address concerns promptly, adjust strategies based on feedback.
Lack of public awareness and education	Market Changes	Implement market monitoring, maintain strategy flexibility for quick adjustments.

Unclear governmental regulations and insufficient pressure for sustainability challenge CICLO's growth. Advocacy efforts, through partnerships and coalitions with environmental groups, can influence local regulations. Simultaneously, accurate market analysis is imperative to avoid misguided strategies due to outdated or flawed data. CICLO must continuously update market analysis, employing third-party experts for validation and considering real-time data. These countermeasures align CICLO with regulatory and market realities, solidifying their position in the eco-friendly construction sector.

The risk of an overly ambitious growth strategy is compounded by economic disparities affecting construction practices. These economic disparities may lead construction companies to prioritize cheaper, non-sustainable materials and methods due to budget constraints, particularly in financially challenged regions. To address this potential challenge, CICLO must align growth targets with market potential, conduct regular reviews, and adjust strategies based on changing circumstances. The utilization of real-time data-driven market analysis, validated by third-party experts, will ensure strategic adaptability and feasibility. Through these measures, CICLO can achieve sustainable growth while navigating the influence of economic disparities on construction practices.

The weakness in lacking specialized waste management technologies and knowledge intersects with the risk of unexpected financial volatilities. Without innovation in waste

management, CICLO's stability against financial vulnerabilities might be compromised due to an inability to adapt to changing circumstances. In response, CICLO can foster innovation through research and development efforts. This innovative approach can help mitigate financial risks by enhancing the company's ability to respond to market changes. Coupled with maintaining a contingency reserve and employing conservative forecasting, CICLO can ensure its resilience against unexpected financial challenges while concurrently addressing its technological shortcomings.

The vulnerability to climate change-driven disruptions is a potential weakness that elevates the risk of inadequate support from both internal and external stakeholders. Climate change, with its potential for extreme weather events like flooding, can disrupt the construction industry and project timelines. This uncertainty may erode stakeholder confidence in the company's growth potential and deter investors. Additionally, employees might perceive the workplace as less secure. To address this, CICLO can implement a comprehensive disaster recovery plan and diversify its supply chain. Transparent communication, prompt concern resolution, and adaptable strategies will reassure stakeholders of the company's resilience against climate-related challenges and secure ongoing support, bolstering its market position.

Insufficient public awareness and education about sustainable construction is a notable vulnerability. This weakness opens the door to the risk of market changes if sustainability is not adequately addressed in educational curricula. Without proper education, the market might veer in an unexpected direction, potentially diminishing demand for CICLO's offerings. To mitigate this, CICLO's countermeasure involves proactive engagement through awareness campaigns, partnerships with influencers, and collaboration with educational institutions. Highlighting successful projects can demonstrate the practical benefits of their solutions. Furthermore, the dynamic nature of markets poses a risk. Rapid changes could

render strategies ineffective, particularly alongside internal misalignments or resource limitations. A vigilant market monitoring system, impact-driven prioritization, and robust communication channels are recommended to ensure agility, efficiency, and internal coherence, safeguarding the success of CICLO's business plan.

In conclusion, the implementation plan and key success factors presented for CICLO's business plan offer a comprehensive roadmap for addressing its funding and growth challenges. The phased approach, delineating responsibilities and timelines, demonstrates a meticulous strategy for execution. The financial analysis, including EBIT calculations, cash flow projections, NPV, IRR, and payback period, underscores the project's feasibility and potential for substantial returns. Moreover, the identification of enablers and risks highlights the critical factors that can influence the plan's success, while the proposed countermeasures provide a proactive approach to mitigate potential setbacks. Overall, CICLO's business plan is well-positioned to capitalize on market opportunities, navigate risks, and drive sustainable growth in the eco-friendly construction sector.

# **Chapter IX: Expected Outcomes**

Upon successfully implementing the suggested solution, a multitude of favourable outcomes becomes apparent, countering the existing lack of investors and funding at CICLO. This positive outcome resonates across the entire organization, affecting not solely the financial domain, but extending its influence on all departments. By exploring the different steps of the implementation process, all three, short-term, medium-term and long-term results can be identified, originating from the improvement of investor attraction and a better overview of operations within the company. Chapter 9 presents the mentioned results. All long-term, medium-term and short-term results come along with specific Key Performance Indicators (KPIs). In Table 25, an overview of the most important short-term, medium-term and long-term outcomes, which will be further discussed in the chapter 9.1 together with their KPIs, is visually presented. For the short-term outcomes a timeline of 0 to three months, for medium-term a timespan of four to 18 and for long-term outcomes a timeline of 18 to 60 months was considered.

 Table 26

 Short-Term Outcomes, Medium-Term Outcomes and Long-Term Outcomes

Short-Term Outcomes KPIs		Time
Initial Investor Interest	1. 3 potential Investor Feedbacks 2. 3 Meetings with potential Investors	<ul><li>1. 4 Weeks after finishing the Business Plan</li><li>2. 4 Weeks after finishing the Business Plan</li></ul>
Initial Feedback and Refinement	1. Obtain Feedback from ≥80% Stakeholders 2. Incorporate actionable Feedback from at least 70% of investors into Business Plan	1. within 1st Month of sharing Business Plan 2. within 1st 3 Months
Medium-Term Ou	itcomes	
Clarity and Direction	1. complete Business Plan 2. 5 strategic Goals outlined	<ol> <li>within 4 Months from Project Initiation</li> <li>within 4 Months from Project Initiation</li> </ol>
Efficient Resource Allocation	Conduct a     Meeting to align     actual Allocation	1. after 4 Months and continously quarterly

	with planned	
	Allocation	
Stakeholder	1. Achieving 4.5+	1. after 1 Year of publishing the Business Plan
Confidence	Average Score in	2. within 6 months after publishing the Business Plan
	Trust and	
	Transparency	
	surveys filled out by	
	Stakeholders	
	2. Receive Inquiries	
	from at least 3	
	potential Partners	
<b>Long-Term Outco</b>	mes	
Sustainable	1. Launch of 5	1. within 5 Years
Growth	Products/Services	2. over 4 Years
	aligning with	
	Growth Strategies	
	2. Increase Market	
	Share by 5%	FINEDA
Innovation and	1. Allocatation of	1. within the next 3 Years
Adaption	5% of annual	
	Revenue to R&D for	
	Innovation and	
	Adaptation; over the	
	next 3 Years	
Attracting	1. Increasing long-	1. over a 3-Year Period
Investment	term Investors by	
	20%	
Diversified	1. Maintaining	1. 5 Years after finishing the Business Plan
Funding Sources	diverse Funding mix	2. within 5 Years
	(≤30% per source)	
	2. Secure	
	Investments/Funding	
	from at least 1 new	
	Source annually	
Increased	1. Achievment of	1. over 3 Years
Financial	≥20% consistent	2. within 5 Years (≥1 new/Year)
Stability	annual Revenue	
	Growth Rate	
	2. Obtaining	
	Funding from ≥5	
	sources	

## **9.1 Short-Term Outcomes**

**Initial Investor Interest**. The inception of investor interest, spurred by the introduction of the business plan, unfolds as a pivotal achievement within CICLO's trajectory and is of upmost importance to the business. This strategic focus notably addresses the paramount importance of investor engagement, accelerated by the formalized documentation of the business plan. As a crucial catalyst, the business plan serves as a prerequisite for many investors, enhancing their immediate intrigue in CICLO. This surge in interest, while

inherently a short-term outcome, lays the groundwork for a more extensive engagement process to ensnare investors in the long haul. Notably, the business plan goes beyond its immediate impact; it remains a requisite element, augmenting CICLO's allure and perception of value when engaging potential investors. Tracking the number of times, the business plan is downloaded by potential investors from the company's website within the first month of its availability and aiming to measure at least five downloads, gathering feedback from at least three potential investors regarding their impressions and areas of interest after presenting the business plan within one month after creating it and schedule a minimum of three meetings with potential investors within the first three months of presenting the business plan are respective KPIs to measure the success of this goal.

Initial Feedback and Refinement. The initiation of initial feedback and subsequent refinement, catalysed by the introduction of the business plan, stands as a pivotal achievement within CICLO's journey. This strategic emphasis addresses a critical need arising from the absence of comprehensive process documentation. Previously, stakeholders encountered challenges in offering feedback due to the lack of a foundational reference point. In order to improve the operations and subsequently be more attractive as a company, feedback from the beginning on is important. The business plan rectifies this by providing an anchor that can be readily shared among diverse stakeholder groups, enabling immediate feedback solicitation. KPIs to supervise the outcome are obtaining feedback from at least 80% of stakeholders within the first month of sharing the business plan, reflecting comprehensive stakeholder engagement and following also successfully incorporating actionable feedback from at least 70% of stakeholders into subsequent iterations of the business plan within the first three months after publishing the business plan.

#### 9.2 Medium-Term Outcomes

Clarity and Direction. The integration of clarity and direction through the business plan brings about transformative outcomes for CICLO, particularly in addressing its central challenge. This is important, since until now, there is no explicit written document about the company's operations, figures and data which enable a clear direction, although it is needed. By putting all operational processes and strategies down into one comprehensive document, CICLO takes crucial steps towards fostering organizational alignment. This alignment extends to the company's overarching vision and mission, laying a foundation for internal coherence and unity. Furthermore, this enhanced organizational structure is a significant factor in attracting potential investors, as it offers a clear and organized roadmap for future growth and success. Similarly, the business plan provides a clear information about the market data. One of the KPIs for this goal is to complete the comprehensive business plan within 8 weeks from the project initiation date. Furthermore, there should be outlined a minimum of 5 clear strategic goals in the business plan within the next four weeks after project initiation in order to make it possible to have clarity and a direction about the business. The relevance of streamlined processes and structured direction underscores the importance of these efforts.

Efficient Resource Allocation. The comprehensive implementation of the business plan yields a significant achievement in the realm of efficient resource allocation at CICLO. This strategic emphasis squarely addresses the critical challenge of optimizing resources, spanning financial assets, time allotment, and personnel distribution. Especially the financial resource allocation should be highlighted, since currently there is not a clear structure in allocating those resources. Due to the high need this goal is essential and highly needed. Through the methodical documentation of resource allocation strategies, the business plan vividly showcases the structured and precise management of resources within the

organization and in the view of external stakeholders. Internally, this in-depth framework aids in refining operational efficiency, curbing wastage, and aligning efforts with pivotal tasks. Externally, the transparent portrayal of resource management in the business plan fosters a palpable sense of confidence among stakeholders, granting them profound insights into the stringent oversight and shrewd utilization of resources. KPIs for this outcome are conducting quarterly resource allocation review meetings to assess the alignment of actual allocation with the planned allocation outlined in the business plan, ensuring that resource allocation plans are drafted and approved within 2 weeks of the beginning of each quarter, promoting timely and strategic allocation and reduce resource wastage executing resource allocation strategies outlined in the business plan.

Stakeholder Confidence. Stakeholder confidence emerges as a pivotal outcome driven by the implementation of the business plan for CICLO. This strategic focus directly addresses the imperative challenge of engendering trust and assurance among stakeholders, notably potential investors. The act of capturing operational strategies and future plans within an official document solidifies CICLO's commitment and direction. This written framework enhances the company's reliability and credibility, resonating particularly with potential investors seeking transparency and assurance. By providing a comprehensive roadmap through the business plan, CICLO effectively bolsters stakeholder confidence, creating an environment conducive to collaboration, partnership, and potential investments. This goal is especially important when considering the shareholders, since only with trust they will agree to invest into the business, which is the desired outcome in order to fight the key issue of lack of funding and investors. The KPIs that underscore the outcome are, for instance, attaining an average score of at least 4.5 out of 5 in stakeholder surveys (including employees, customers, partners) measuring their confidence in CICLO's future prospects and transparency one year after the business plan implementation and generating inquiries from a minimum of three

potential partners (such as ecological construction businesses or organizations) or collaborators within the first half year after sharing the business plan.

## 9.3 Long-Term Outcomes

Sustainable Growth. Sustainable growth emerges as a cornerstone achievement nurtured by the long-term implementation of the business plan within CICLO. This is fundamental and must be pursued. As time unfolds, the business plan unveils its capacity to cultivate investor confidence, offering a comprehensive depiction of the company's journey. Internally, it fortifies the bedrock of CICLO's operations, serving as a compass that aligns actions with the strategic vision and mission. This steadfast alignment, in turn, engenders operational stability and consistency. Furthermore, the business plan extends its influence by promoting trust among investors, signaling a commitment to transparency and strategic foresight. Since CICLO is planning to launch new products soon, a proper KPI is to launch a minimum of five new products or services within the next five years that align with the business plan's growth strategies and thereby expand market share by 15% over a four-year period, reflecting increased industry competitiveness and the effectiveness of the business plan's strategies.

Innovation and Adaptation. Innovation and adaptation emerge as integral triumphs in the area CICLO is operating in and is fostered by the enduring execution of the business plan within the company. This strategic focus encapsulates the essence of propelling long-term evolution. The business plan, incorporating a growth strategy, provides a conduit for channelling new innovations, seamlessly aligning with the pursuit of expansion. Furthermore, the plan stands as a custodian of the company's adaptability, effectively documenting the strategies employed to navigate shifting environments. Within this framework, the adept handling of resources is accentuated, serving as a tangible demonstration of CICLO's capacity to flex and flourish in the face of change. Since innovation and adaptation have to be

done in order to keep up with the market needs, at least 5% of annual revenue should be allocated to research and development initiatives focused on innovation and adaptation over a three-year period.

Attracting Investors. The strategic allure of attracting investors is solidified as a central triumph sustained by the ongoing implementation of the business plan within CICLO. While initial investor interest can be created in the short term, the enduring endeavour lies in nurturing and sustaining this engagement over time. The business plan, functioning as an evolving blueprint, extends its influence beyond its inception, serving as a dynamic canvas for continuous improvement. By consistently refining and enhancing the plan, CICLO keeps its proposition compelling, continually piquing investor curiosity. This commitment to perpetual refinement is not limited to the plan itself but extends to nurturing long-term investor relationships, cultivating a network of trust and rapport. Increasing the number of long-term investors (invested for over two years) by 20% over a three-year period (put together by the two years the investors are active plus one extra year to analyse the investment activities) indicates the ability to retain and deepen investor relationships.

Diversified Funding Sources. The accomplishment of diversifying funding sources is necessary for CICLO in order to stay independent from every source. The business plan serves as a strategic compass, guiding the organization to explore various funding avenues beyond the conventional. By orchestrating a comprehensive assessment of funding options, CICLO can strategically weigh the potential benefits and drawbacks of different financial investors and approaches. The adaptability of the business plan is a pivotal asset in this pursuit, enabling it to be molded and tailored to suit evolving financial requirements. With KPIs such as maintaining a diversified funding mix over a five-year period, with no single funding source accounting for more than 30% of the total funding and securing investments or funding from at least one new source every year for the next five years, progressively

expanding the financial network, the diversification and independence from specific funding sources can be avoided.

Increased Financial Stability. Enhanced financial security stands as a central accomplishment fortified by the continued implementation of the business plan within CICLO. In the actual insecure financial state, the company needs to aim for rising revenues in the future. The business plan, with its intricate financial forecasting, serves as a guiding force that propels the organization's ongoing commitment to financial responsibility. This comprehensive document outlines intricate financial strategies, bolstering transparency and instilling investor confidence. The thorough portrayal of every aspect of the organization's financial landscape within the plan elevates its importance. As the business plan fuels heightened investor interest, the subsequent influx of funding sources translates into amplified financial security. Although CICLO aims to double the revenue by the next year, further realistic KPIs such as achieving a consistent annual revenue growth rate of at least 20% over the next three years, demonstrating the company's progress towards financial stability and ensuring that funding comes from at least five different sources within the next five years (at least one new per year as previously states), spreading financial risk and enhancing stability should be pursued.

In conclusion, the implementation of the proposed solution within CICLO promises to yield a wide range of favorable outcomes, categorized into short-term, medium-term, and long-term achievements. These outcomes encompass initial investor interest, stakeholder engagement, organizational clarity, efficient resource allocation, and sustainable growth, among others. By strategically utilizing a comprehensive business plan and specific Key Performance Indicators (KPIs), CICLO aims to address its current challenges, foster transparency, attract investors, and ensure long-term financial stability and growth.

## **Chapter X: Conclusions and Recommendations**

This final chapter focuses on concluding the information about CICLO, the company's key problem, possible alternatives and a chosen solution in order to solve this problem.

Furthermore, recommendations about the further steps for CICLO and suggestions for students engaged in consulting projects are provided in the following.

#### **10.1 Conclusions**

Based on the key problem identified in the first chapter of this project, this thesis analyzed the factors leading to the key issue and provided the solution to create a guideline, in specific a Business Plan, in order to be able to tackle the main problem. Moreover, there are three big aspects which have to be analyzed and included into the Business Plan which are (1) a financial forecast, (2) a market analysis, and (3) a growth strategy. Outcomes and results within those three categories are concluded in this chapter.

As referenced in Table 17, the analysis of CICLO's potential growth without additional funding indicates that to achieve a 5% market share, there is a necessity to increase sales by 1.25% each year. However, to expedite this growth and maximize our impact, securing funding is imperative. This funding will enable CICLO to increase production and thereby augment the capacity of eco-pavers that can be produced. Furthermore, it is strongly recommended that CICLO should hire specialized employees to handle key areas such as marketing, financials, and operations. These dedicated personnel will be crucial in implementing our current business plan to boost growth year over year, assuming the necessary funding is secured. This will not only optimize the business operations but also ensure a sustainable and strategic approach to market penetration and expansion. After valuing the project of hiring three people to be in charge of finance, operations and marketing, the result was a positive net present value and a rate of return greater than the cost of capital. It can be said that the project is viable, taking as a starting point the business plan

created in this project. Ultimately, with the required funding and the hiring of specialized staff, CICLO can significantly increase its production capacity, streamline its operations, and steadily grow its market share, aligning with its mission to be a leader in sustainable construction.

### 10.2 Recommendations

In light of the comprehensive market analysis conducted, several strategic recommendations emerge for CICLO's successful penetration and growth in the eco pavers market. Firstly, the identification and precise definition of customer segments interested in eco pavers are crucial. This can be accomplished by utilizing the insights garnered from the market analysis to tailor marketing efforts and product features to resonate with the identified segments. To effectively position the eco pavers against traditional options, a robust Unique Selling Proposition (USP) should be developed. This proposition must emphasize the unique benefits of eco pavers, catering to the emotional resonance of socially and environmentally conscious consumers.

To ensure a consistent and informed decision-making process, regular updates to the market analysis are essential. This continual analysis, incorporating real-time data and industry expertise, will enable accurate adaptation of strategies to rapidly changing market dynamics, considering factors such as a growing population's evolving needs. Furthermore, sound financial forecasting implementation is advised. This involves meticulous budget allocation based on the forecasting outcomes to optimize returns on investment.

Concurrently, stringent cost management procedures should be adopted, ensuring financial alignment with forecasts. The organized financial data also forms the bedrock of a compelling investment pitch, which underscores the profitability and sustainability of the eco pavers market. It is pivotal to establish a system for adequate and timely information sharing from the CEO, enabling in-depth situational analyses.

Effective growth strategy deployment necessitates the hiring of a seasoned Marketing Representative aligned with the company's objectives. This individual should possess a solid network in the construction industry, expediting sales processes. Well-defined sales targets derived from the market analysis must be set, maintaining a balance between ambition and realism. Thorough training of the Marketing Representative is paramount, enabling a comprehensive understanding of eco pavers' attributes and the company's overarching vision. This growth strategy must be flexible, amenable to periodic reviews to adapt to evolving market potentials and changing circumstances.

Engaging potential investors mandates tailored pitches that resonate with their individual interests and concerns, leveraging market insights, financial forecasts, and growth strategies. Validating product demand and effectiveness through testimonials and case studies enhances credibility. Absolute transparency regarding the company's financial health, strengths, weaknesses, opportunities, and threats fosters trust with potential investors.

Continual review and adaptation are central to the company's sustained success. Regular assessment of the business plan, combined with feedback incorporation from various stakeholders, will enable strategic refinements. Adequate resource planning, encompassing contingency reserves and conservative financial forecasting, is advised to mitigate potential financial uncertainties. Finally, fostering sustainability throughout the organization by educating and aligning employees and stakeholders with shared sustainable goals positions CICLO for a resilient and enduring future.

Furthermore, along the process of the project, students involved in consulting projects may encounter situations that demand a high degree of strategic flexibility and necessitate thorough rethinking of initial approaches. These scenarios could arise due to evolving market dynamics, unforeseen challenges, or shifts in stakeholder priorities. In such instances, students should be prepared to pivot their strategies, reassess their assumptions, and adapt

their recommendations to ensure alignment with the ever-changing project landscape. This adaptive mindset not only demonstrates their ability to handle real-world complexities but also reinforces the importance of strategic agility and critical thinking in successful consulting endeavours. Therefore, trusting the progress is also important.

Effective stakeholder management is vital too. Emphasizing transparent and constant communication and ongoing dialogue with internal and external stakeholders builds trust, alignment, and shared commitment, boosting stakeholder confidence. Promoting a culture of innovation and adaptation is important. Additionally, presenting every progress step is important in order to keep the responsible persons of the company involved and updated.

Additionally, it is essential to nurture a mindset of continuous learning and self-improvement. Actively seeking out opportunities to expand one's knowledge, staying updated on industry trends, and integrating new ideas into their consulting practices is necessary. By staying curious and committed to ongoing education, students can enhance their ability to offer effective and up-to-date information and results.

#### References

- Abrams, R. (2003). The successful business plan. Google Books.
  - https://books.google.ca/books?hl=en&lr=&id=hpFxjEsZLUwC&oi=fnd&pg=PR7&d
  - q=business%2Bplan%2Bsample&ots=erRl4AbyRf&sig=cTf-
  - gSNAQgRTBNnfGsIw9LT72iI#v=onepage&q=business%20plan%20sample&f=fals

e

- Acumen (2023). Trabajamos con comunidades y apoyamos soluciones innovadoras que benefican a poblaciones vulneradas. https://acumen.org/latinoamerica/nosotros/
- Aguilar, F. J. (1967). Scanning the business environment. Macmillan: New York.
- Air Quality in Peru. Air Quality Index (AQI) and PM2.5 air pollution in Peru (2023, July 29). *IQAIR*. Retrieved July 29, 2023, from <a href="https://www.iqair.com/peru">https://www.iqair.com/peru</a>
- Análisis Interno: Amofhit (n.d.). issuu. <a href="https://issuu.com/citeagroindustrialica/docs/bo-18-014\_bolet\_n\_an\_lisis\_del\_ento\_36a6ba74332faf/s/10769514">https://issuu.com/citeagroindustrialica/docs/bo-18-014\_bolet\_n\_an\_lisis\_del\_ento\_36a6ba74332faf/s/10769514</a>
- Banco Central de Reserva del Perú. (2023). Producto bruto interno por sectores productivos 
  (millones S/ 2007) Construcción, from 
  <a href="https://estadisticas.bcrp.gob.pe/estadisticas/series/anuales/resultados/PM04997AA/ht">https://estadisticas.bcrp.gob.pe/estadisticas/series/anuales/resultados/PM04997AA/ht</a>
  <a href="mailto:ml">ml</a>
- BESCO (2023). *Ecobesco*. Retrieved from <a href="https://besco.com.pe/">https://besco.com.pe/</a>
- Brigham, E. F., Houston, J. F.(2020). *Fundamentos de administración financiera*. Cengage Learning. <a href="http://www.ebooks7-24.com.ezproxy.ulima.edu.pe/?il=10759">http://www.ebooks7-24.com.ezproxy.ulima.edu.pe/?il=10759</a>
- Chan, L. (2017). Rapid Rural-to-Urban Migration to Lima: A Need for a Sustainable Housing Reform. *Leveraging Peru's Economic Potential*, 35, 33-43.
- CENTENARIO (2022). *Memoria Anual 2022*. Retrieved from <a href="https://www.smv.gob.pe/ConsultasP8/temp/Memoria%20Anual%202022%20VF5.pdf">https://www.smv.gob.pe/ConsultasP8/temp/Memoria%20Anual%202022%20VF5.pdf</a>

Ciclo. (n.d.). Nosotros: CICLO. Retrieved from https://ciclo.com.pe/ (2023, August 1).

- Clingingsmith, D., Drover, W., & Shane, S. (2023). Examining the outcomes of entrepreneur pitch training: an exploratory field study. *Small Business Economics*, 60(3), 947–974. <a href="https://doi.org/10.1007/s11187-022-00619-4">https://doi.org/10.1007/s11187-022-00619-4</a>
- Dance, A. (2019). Pitch perfect. *Nature* (London), 571(7766), 589-591. https://doi.org/10.1038/d41586-019-02252-w
- Davies, I. A., Haugh, H., & Chambers, L. (2019). Barriers to social enterprise growth.

  \*\*Journal of Small Business Management\*, 57(4), 1616-1636\*

  https://doi.org/10.1111/jsbm.12429\*
- Day, G. S. (2021). *Strategic market analysis and definition: An integrated approach*. https://onlinelibrary.wiley.com/doi/abs/10.1002/smj.4250020306
- DesJardine & Shi. (2023). How to Attract the Right Shareholders. *Harvard Business Review*.

  Retrieved from <a href="https://hbr.org/2023/08/how-to-attract-the-right-shareholders">https://hbr.org/2023/08/how-to-attract-the-right-shareholders</a>

  Driveway Paving Costs in Peru. Manta. (2023). <a href="https://www.manta.com/resources/about">https://www.manta.com/resources/about</a>

  Edge (n.d). <a href="https://edgebuildings.com/certify/certification/?lang=es">https://edgebuildings.com/certify/certification/?lang=es</a>
- Elliott, G., & Timmermann, A. (2016). Forecasting in Economics and Finance. *Annual Review of Economics*, 8(1), 81–110. <a href="https://doi.org/10.1146/annurev-economics-080315-015346">https://doi.org/10.1146/annurev-economics-080315-015346</a>
- Fernandes, E. (2022, August 31). Global concrete pavers market, by type (brick concrete pavers, general pavers), by application (construction, road, other) and by region North America, Latin America, Europe, Asia Pacific, Middle East & Africa), forecast from 2023 to 2031. *Dataintelo*. https://dataintelo.com/report/global-concrete-pavers-market/
- Fernández-Altamirano, A. E. F., Heredia-Llatas, F. D., Mejía Diaz, Y. I., Mego Nuñez, O., Montenegro Camacho, L., Montenegro Camacho, L. A., Ramírez Cajamarca, J. C., Cabrejos Mejía, J. A., Cardoza Sernaqué, M. A., & Espejo Chacón, L. F. (2023).

- Political Stability and Public Governance in Peru. *Social Space*, 23(1), 265-291. https://socialspacejournal.eu/article-page/?id=175
- FLESAN (2023). Flesan proyectos. Retrieved from <a href="https://flesan.com.pe/proyectos/">https://flesan.com.pe/proyectos/</a>
- Fundación Avina (2023). Qué Hacemos. https://www.avina.net/programas/
- Gherghina, S. C., Botezatu, M. A., Hosszu, A., & Simionescu, L. N. (2019). Small and Medium-Sized Enterprises (SMEs): The Engine of Economic Growth through Investments and Innovation. *Sustainability*, 12(1), 1-22. <a href="https://doi.org/10.3390/su12010347">https://doi.org/10.3390/su12010347</a>
- Google maps (2023). Retrieved from <a href="https://www.google.com/maps/@-12.6118529,-76.6780667,3096m/data=!3m1!1e3?entry=ttu">https://www.google.com/maps/@-12.6118529,-76.6780667,3096m/data=!3m1!1e3?entry=ttu</a>
- Hickel, J., & Kallis, G. (2019). Is Green Growth Possible? *New Political Economy*, 25(4), 469-486. <a href="https://doi.org/10.1080/13563467.2019.1598964">https://doi.org/10.1080/13563467.2019.1598964</a>
- ICG (Instituto de la Construcción y Gerencia) (n.d.). Norma técnica CE.010 Pavimientos

  Urbanos. <a href="https://cdn-web.construccion.org/normas/files/tecnicas/Pavimentos">https://cdn-web.construccion.org/normas/files/tecnicas/Pavimentos</a>

  Urbanos.pdf
- Kaiser, M., Berger, E.S.C. (2021). Trust in the investor relationship marketing of startups: a systematic literature review and research agenda. *Management Revue Quarterly*, 71, 491–517 (2021). https://doi.org/10.1007/s11301-020-00191-9
- Kamps, H. J. (2020). Pitch Perfect: Raising Capital for Your Startup. Apress: New York.
- Kunan (2023). ¿Quiénes somos? <a href="https://perusostenible.org/que-hacemos/mesas-de-accion/">https://perusostenible.org/que-hacemos/mesas-de-accion/</a>
- Lloyd, W. J., & Davis, L. E. (2007). Building Long-term Value Through IT. Journal of Accountancy.
- Los Portales (2023). *Nuestro Proyectos*. Retrieved from https://www.losportales.com.pe/mapa/?sd\_type=casas-mi-vivienda

- MAXIMIXE. (2023). *Producción de concreto premezclado crecería 1,3% en 2022*. Retrieved from https://www.maximixe.com/tienda/producto.php?id=34
- Majumdar, S. (2008). Modelling Growth Strategy in Small Entrepreneurial Business

  Organisations. *The Journal of Entrepreneurship*, 17(2), 157-168.

  <a href="https://doi.org/10.1177/097135570801700204">https://doi.org/10.1177/097135570801700204</a>
- MEF (2009). Strategic Plan for Public Procurement. (n.d.). Retrieved from <a href="http://www.osce.gob.pe/consucode/userfiles/image/Plan\_Estrategico\_delas%20contrataciones%20publicas.pdf">http://www.osce.gob.pe/consucode/userfiles/image/Plan\_Estrategico\_delas%20contrataciones%20publicas.pdf</a>
- McNabb, B., Charan, R., & Carey, D. (2021). Engaging with your investors. A playbook for the board. *Harvard Business Review*. <a href="https://hbr.org/2021/07/engaging-with-your-investors">https://hbr.org/2021/07/engaging-with-your-investors</a>
- Ministerio de Energía y Minas Peru (2016). Aprueban Reglamento para la Gestión y Manejo de los Residuos de las Actividades de la Construcción y Demolición.

  https://www.minem.gob.pe/minem/archivos/file/DGGAE/DGGAE/ARCHIVOS/legislacion/LEGISLACION%202017/normas%20ambientales%20transversales/RESIDUOS%20SOLIDOS/5,%20DECRETO%20SUPREMO%20N%C2%BA%20003-2013-VIVIENDA.pdf
- Municipalidad Distrital de Miraflores (2021, December 17). ORDENANZA N° 581/MM.

  Ordenanza que establece, regula y promueve condiciones para edificaciones sostenibles en el distrito de Miraflores. *El Peruano*.

  <a href="https://cdn.www.gob.pe/uploads/document/file/2748255/ORDENANZA.pdf?v=164253">https://cdn.www.gob.pe/uploads/document/file/2748255/ORDENANZA.pdf?v=164253</a>

  7975
- Pawski, D. A., Powell, R. J., & Golab, A. (2022). Factors affecting the growth of small privately-owned financial planning businesses. *Australian Economic Papers*, 61(4), 717–737. <a href="https://doi.org/10.1111/1467-8454.12275">https://doi.org/10.1111/1467-8454.12275</a>

- Pearson, S. (2023, January). Asphalt pavers market size, trends and Global Forecast to 2032.

  The Business Research Company.
  - https://www.thebusinessresearchcompany.com/report/asphalt-pavers-global-market-report
- PECAP (2023). Historia. https://www.pecap.pe/nosotros
- Rondinel-Oviedo, D. R. (2023). Construction and demolition waste management in developing countries: a diagnosis from 265 construction sites in the Lima Metropolitan Area. *International Journal of Construction Management*, 23(2), 371-382. https://doi.org/10.1080/15623599.2021.1874677
- Salkantay Ventures (2023). Empowering High Impact Founders in Latin America.

  <a href="https://www.salkantay.vc/">https://www.salkantay.vc/</a>
- Serafeim, G. (2020). Social-Impact Efforts That Create Real Value. *Harvard Business Review*, 1-12.
- Siña, M., Wood, R. C., Saldarriaga, E., Lawler, J., Zunt, J., Garcia, P., & Cárcamo, C. (2016).

  Understanding Perceptions of Climate Change, Priorities, and Decision-Making among

  Municipalities in Lima, Peru to Better Inform Adaptation and Mitigation Planning. *Plos*One, 11(1), 1-12. <a href="https://doi.org/10.1371/journal.pone.0147201">https://doi.org/10.1371/journal.pone.0147201</a>
- Siskina, A., Juodis, A., & Apanavičiene, R. (2010, October 14). Evaluation of the competitiveness of construction company overhead costs. *Journal of Civil Engineering and Management*. <a href="https://www.tandfonline.com/doi/abs/10.3846/1392-3730.2009.15.215-224">https://www.tandfonline.com/doi/abs/10.3846/1392-3730.2009.15.215-224</a>
- Superintendencia de Banca, Seguros y Administradoras Privadas de Fondos de Pensiones (SBS). (2023) TASA DE INTERÉS PROMEDIO DEL SISTEMA BANCARIO.

  Retrieved from

https://www.sbs.gob.pe/app/pp/Estadisticas SAEE Portal/Paginas/TIActiva Tipo Credito Empresa.aspx?tip=B

Torres Matamoros, F. E., Pizarro Vargas, V. J., Cerezo Piedrahíta, J. J., & Fray Villacres, P. X. (2023). El emprendimiento y finanzas en la economía circular. *RECIMUNDO:*\*Revista Científica De La Investigación y El Conocimiento, 7(1), 177-185.

https://doi.org/10.26820/recimundo/7.(1).enero.2023.177-185

Worldbank (2023). The World Bank in Peru. https://www.worldbank.org/en/country/peru/

