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**Mejorando la Visibilidad en el Sector B2B: Una Nueva Estrategia para  
Lima Compost**

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## **Executive Summary**

Lima Compost is a social enterprise founded in 2020 to address the poor management of organic waste. In Lima, around 9,000 tons of organic waste are generated every day and only 1% is properly composted. This situation causes severe environmental consequences and while Lima Compost has developed a sustainable model for the collection and transformation of organic waste, the company still faces barriers in attracting corporate clients and gaining visibility in the B2B market.

The proposed solution consists of two elements, a new corporate website and the introduction of a door sign, both designed for the business segment. The upgraded website will highlight the external benefits for companies, provide access to sustainability information and allow companies to visualize their social and environmental impact. The door sign, displayed in client facilities, will serve as a visible proof of commitment to sustainability and a practical trust-building tool.

The implementation of these two elements is expected to generate both social and financial impact. On the social side, the solution is expected to increase awareness of organic waste management, bring in more partner companies and contribute more effectively to the relevant SDGs. On the financial side, the analysis shows that Lima Compost already operates well above break-even. Both household and business clients are profitable segments, but businesses operate with slightly higher efficiency and greater scalability, making them the most promising driver of future growth. The advanced business model is expected to further strengthen revenues, while positive net cash flows ensure sufficient liquidity to sustain growth.

Overall, the solution positions Lima Compost to expand its impact. It combines tangible environmental and social benefits with a solid financial foundation for sustainable growth in the B2B segment.

## Resumen Ejecutivo

Lima Compost es una empresa social fundada en 2020 para resolver la mala gestión de residuos orgánicos. En Lima, se generan alrededor de 9000 toneladas de residuos orgánicos por día, de los cuales solo el 1% es compostado correctamente, lo cual genera serias consecuencias ambientales. A pesar de que Lima Compost ha elaborado un modelo sustentable de recolección y transformación de residuos orgánicos, la empresa aún enfrenta barreras para la captación de nuevos clientes corporativos y para visibilizar su impacto de forma práctica en el segmento B2B.

La solución propuesta a la empresa tiene 2 elementos: mejora de la página web corporativa e implementación de un “door sign”. Por un lado, la mejora de la página web corporativa que permita a las empresas registrarse con facilidad, acceder a información sobre sostenibilidad, visualizar el impacto generado a la sociedad. Por otro lado, la implementación de un “door sign” que los clientes puedan exhibir en sus instalaciones con la finalidad de comunicar su compromiso con la sostenibilidad.

Producto de la implementación de estos 2 elementos, se espera impactar social y financieramente. Por el lado social, se espera una mayor conciencia del manejo de residuos orgánicos, más empresas aliadas, aportar en mayor medida a los ODS pertinentes. Del lado financiero, los resultados muestran que Lima Compost ya opera muy por encima del punto de equilibrio. Tanto los clientes domésticos como los corporativos son segmentos rentables, en el que las empresas operan con una eficiencia ligeramente superior y con mayor escalabilidad, lo cual las convierte en el motor más prometedor para el crecimiento futuro. Se espera que este nuevo modelo de negocio impulse en mayor escala los ingresos, mientras que los flujos de caja neto positivo garantizan la liquidez suficiente para sostener el crecimiento. En general, la solución coloca a Lima Compost en buena posición para potenciar su impacto, ya que combina beneficios ambientales y sociales tangibles con una sólida base financiera para un crecimiento sostenible en el segmento B2B.

## Dedication

I dedicate this thesis to my parents, whose constant support and encouragement have made this journey possible. Their belief in me gave me the strength to get as far as I did. I could not have done it without them.

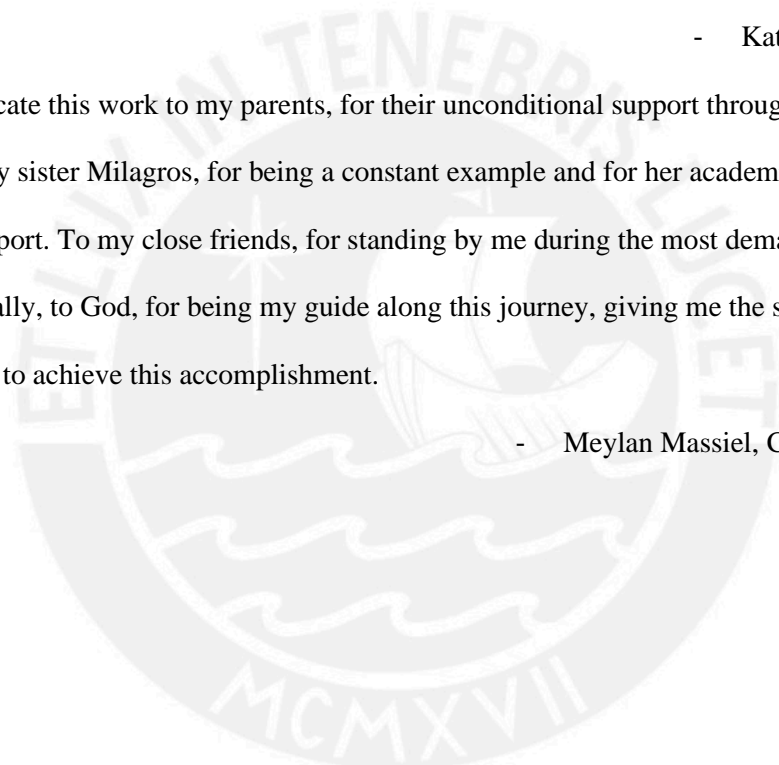
- Hannah, Brückler

This thesis is dedicated to Yiran Wang, whose commitment, expertise and enthusiasm were essential to the success of this project. Although her name could not appear on the front page, her eagerness to collaborate and her hard work made her an integral part of our team.

- Katrin, Köglberger

I dedicate this work to my parents, for their unconditional support throughout this process. To my sister Milagros, for being a constant example and for her academic and emotional support. To my close friends, for standing by me during the most demanding moments. Finally, to God, for being my guide along this journey, giving me the strength and clarity needed to achieve this accomplishment.

- Meylan Massiel, Carbajal Galarza



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## Introduction

Lima Compost is a social enterprise from Peru founded in 2020, with Raúl Valenzuela as its founding partner and Gonzalo Leon as a cofounder. Lima Compost's mission is to transform organic waste into compost by using a sustainable and community-based model. The company originally started as a hobby by Raúl, with the purpose of promoting circular economy practices. Currently, it operates in Lima and Trujillo, with approximately 95% of its clients located in Lima and 5% in Trujillo, where operations began in 2024.

Its team consists of around 18 employees, of which 80% work in the field and 20% are administrative staff. At present, Lima Compost manages a portfolio of more than 1,000 clients, including around 900 households and 65 businesses (see Appendix A) such as cafés, restaurants, hotels and corporations. Among its most notable partners are Minera Poderosa, Limaná restaurant, Rimac Seguros, Rollos de Papel, among others.

### Figure 1

*Key Corporate Clients of Lima Compost*



*Note: Own elaboration based on data provided by Lima Compost*

In addition to its main service of organic waste collection for households and businesses, the company also offers other services: composting of pets, collection of industrial grease trap waste (only for current clients), collection of pet waste and the sale of composters/composting bags (see Appendix B). It also partners with Fundación Oli (Nongovernmental Organization [NGO]), that provides certification for sustainable practices. Additionally, Lima Compost focuses on expanding its model across Peru, specifically for individuals and companies with a solid environmental motivation but who need the knowledge and infrastructure to carry out proper composting.

The main market rival of Lima Compost is Sinba, a more recognized company with alliances with over 150 businesses (Sinba, n.d.a), giving its greater visibility and a stronger presence in the business-to-business (B2B) market. However, Lima Compost differentiates itself by maintaining a more customized approach, serving both households and businesses, and engaging in awareness-raising initiatives in cities such as Lima and Trujillo, where environmental awareness is needed (Zeballos-Velarde et al. 2019).

Based on discussions with Lima Compost concerning its priorities and future direction, three strategic alternatives were defined. The first option involved reinforcing its presence in Lima and Trujillo by enhancing operations in these key markets, choosing to specialize in either the B2B or business-to-consumer (B2C) segment, while also reinforcing brand identity through a professional website, a cohesive visual style and more effective communication on social media. The second option focused on expansion to Cusco, a city with great potential, where the company could consolidate itself with a clear segment focus, supported by increased brand visibility and local awareness campaigns. The third alternative centered on internal development, with the goal of optimizing administrative processes, improving operational efficiency and identifying grants or funding opportunities to support long-term growth. After a thorough evaluation, it was recommended to prioritize current markets, with a strong emphasis on the B2B segment, as companies generate larger and more consistent volumes of organic waste, face increasing pressure from environmental, social and governance (ESG) and sustainability commitments and offer a more scalable path compared to individual households (Albitar et al., 2024).

## Chapter I. Defining the Problem

Lima Compost is mainly trying to deal with a very simple but huge problem, namely the way organic waste is handled in Peru. The issue is particularly visible in the hospitality and gastronomy sectors. Restaurants, hotels and supermarkets throw away large amounts of food every day because of bulk cooking, food going bad or just poor stock management. According to the National Institute of Statistics and Informatics (INEI, n.d.), there are more than 2.8 million companies in these categories, so the amount of waste is massive. A small survey with 67 restaurants in Lima and Tacna showed that only about 28% actually measure how much organic waste they produce. That means most businesses do not really know what they are generating, which reflects both a lack of awareness and the absence of any systematic waste management (Cordova-Buiza et al., 2022). In Lima alone, the city produces about 9,000 tons of waste per day. A lot of this goes to informal dumps or badly managed landfills (Holland Circular Hotspot, 2021). When organic waste is left in those conditions, it releases methane, a greenhouse gas that is around 25 times stronger than carbon dioxide (CO<sub>2</sub>) in terms of warming impact (IPCC, 2021).

The relevance of the problem is clear when looking at environmental, economic and social levels. From an environmental aspect, composting means the reduction of the waste that ends up in landfills and lowers methane emissions. It also creates natural fertilizer that can replace chemicals. From an economic point of view, composting helps restaurants, hotels and supermarkets meet global standards on sustainability and at the same time improves their reputation with clients and partners. Socially, composting supports a cultural shift. People start paying more attention to their daily habits, schools and households adopt sustainability practices and local communities become more engaged in shared responsibility.

Because of these reasons, Lima Compost is directly linked to the United Nations Sustainable Development Goals (SDGs). It connects with SDG 11.6 (Sustainable Cities and Communities) since it helps build cleaner cities by promoting better waste management (United Nations, 2025a). Additionally, it also links with SDG 13.3 (Climate Action), because the

company not only manages waste but also raises awareness about climate change in households, restaurants and schools (United Nations, 2025b). In this way, Lima Compost is addressing a local problem but, at the same time, contributing to a much broader international effort.

To sum up, the main social problem that Lima Compost is following, is the inadequate management of organic waste in Peru. This challenge not only increases ecological damage but also limits the ability of businesses and communities to immerse themselves in sustainable practices. Tackling these issues requires an understanding of systemic barriers as well as the perspectives of the stakeholders involved. That is why the next chapter turns to User and Customer Research. The aim is to gather useful insights about the behaviors, needs and motivations of both current clients and those who could become clients of Lima Compost.



## Chapter II. User (and Customer) Research

Understanding the users of Lima Compost is important to ensure that the following solutions effectively address real needs and behaviors. This chapter gives an overview of the user profile, then maps the user experience and finally, it identifies the key needs.

### 2.1. User Profile

This section will help to better understand Lima Compost's users, which will ease the process of catering to their needs and therefore get more customers to use the service of waste pick up. In the long run the company is not only trying to attract new customers but also to develop services that really suit the desires and needs of those working in the hospitality and food and beverage industry in Lima and Trujillo.

To create a suitable persona for this project an interview guide was designed. The interview guide is based on six core interests, such as bio, activities, beliefs, problems, family and social circle. The questions were designed to counteract any bias towards the service but also keep it short and simple with open, easy questions (see Appendix C).

Five in-depth interviews (see Appendix D) were conducted with people that fit into the general user description that was already established. The users are people working in the hospitality and food and beverage industry in Lima and Trujillo who are involved in daily operations, especially the buying center around waste management decisions. Their business generates large volumes of organic waste. And they want to reduce their ecological footprint.

The daily routines of the interviewees show a mix of supervision, coordination and problem-solving. Cristian, a restaurant owner, spends his day opening the business, assigning tasks and stepping in during peak hours. Fabiola, a quality assurance engineer, monitors compliance with environmental standards and staff behavior. Miriam, a general manager, balances administrative work with field operations. So, all in all, their workdays are demanding and revolve around managing staff, operations and compliance.

Across different roles, users share the desire to run their businesses responsibly and be recognized for it. Sandra, a sustainability analyst, values seeing small cultural shifts in her company, such as staff improving waste segregation. Cristian views sustainability more

practically, linking it to cleanliness and customer satisfaction. Others connect it to their families and children, expressing a wish to leave behind a cleaner environment and be role models.

The main frustrations mentioned were low staff compliance with waste separation, distrust in current waste services and the lack of incentives to change, as municipal collection is free. For many, the environmental argument alone is not enough. Managers also pointed to the difficulty of ESG reporting, as they often lack time and resources to prepare proper documentation.

Out of the interviews some interesting insights were drawn and the Meta User Persona, which was named Camila, was created (see Appendix E). This persona is an archetype that shows the most relevant needs, frustrations and aspirations of the group that was studied (Dam & Siang, 2025). Camila works in the hospitality and food and beverage sector and is closely involved in daily operations where waste is a constant issue. Camila is responsible and values sustainability, but at the same time she is under pressure to keep the business running smoothly with limited resources and support. She wants to act responsibly and set a good example for her family, yet she struggles with challenges such as low staff compliance, doubts about what really happens to the collected waste, as well as the difficulty of showing measurable results. Camila represents the typical professional who cares about sustainability but is confronted with structural barriers that make it difficult to follow through.

## **2.2. User Experience Map**

With the Meta User Persona “Camila” clearly illustrated, positive and also negative experiences, in the form of a user experience journey, were generated (see Appendix F). This map illustrates how the background, values and frustrations show in her daily routine and especially in situations where she has interactions with waste. This helps to better understand where the customers' concrete pain points are.

This map is a combination of a storyboard, her thoughts and the emotions that Camila has, not only during her workday but also before and after. This visual map makes it able to understand where the positive and negative touchpoints are, that influence her perception of waste management.

During her day it can be seen that there are several negative aspects in regards to waste and waste handling. The first negative encounter is right in the morning where she inspects the back area of the restaurant and encounters a mix of all different waste, including organic waste. Staff do not comply with waste separation practices, arguing that the city collects the trash regardless of its content. Since municipal pick-up is free of charge, waste is not treated as a priority and this attitude is reflected in the daily behavior of employees. This highlights a systemic issue, that without economic or structural incentives, staff compliance remains low and sustainability goals are not taken seriously. For Camila, this situation is highly frustrating and definitely one of her biggest professional pain points as it undermines her defined sustainability goals. She is left looking for other ways of achieving these goals she set for the company. Reliable and suitable alternatives need to be found. At the same time, she is unwilling to allow her restaurant's "green" positioning to remain only a marketing label, which makes the availability of trustworthy services even more crucial.

A particularly emotional moment occurs on her drive home, when she sees mountains of trash on the roadside. This experience connects her professional challenges to the wider context of Lima and her role as a mother. The experience reinforces her feeling that the problem is systemic and underlines the urgency of finding alternatives. She does not want her children to grow up in this environment and wants them to learn correct waste practices from a young age.

There are also positive moments in her journey. When her children ask questions about recycling at home, Camila feels hopeful and motivated. These moments give her a sense of purpose and show how personal values can translate into professional motivation. They reveal that her drivers are not only compliance and image but also the wish to set a good example for her family and community.

The user journey clearly shows that Camila is confronted with frustrations regarding waste both professionally and personally. Two main insights can be drawn from this. First, the absence of reliable alternatives leaves Camila stuck between her goals and the current system. Second, that her motivation is strengthened when her values at home align with the ones at

work. This explains why the need for reliable and trustworthy alternatives for the handling of waste is so central and why addressing it is crucial for both professional and personal reasons.

### **2.3. Identification of the Need to Solve for the User**

During the interviews one clear frustration became visible and this is the lack of staff compliance with waste handling. Even when rules are defined staff tend to ignore them because the city collects the trash anyway and municipal pick-up is free of charge. It was defined that these in general are internal issues but with a larger underlying problem. This behavior is a symptom of the absence of reliable and visible alternatives for waste handling. Waste segregation is mandatory but rarely practiced and only a small portion of municipalities deliver daily waste collection service or proper disposal to sanitary landfills (European Union, 2023). Therefore, businesses have no trustworthy option they can turn to.

This absence is the central pain point. Even with set sustainability goals, but without dependable alternatives available, these goals cannot be reached. The risk is that sustainability remains only a marketing label, something users want to avoid. The frustration is not only that staff do not comply, but that the system offers no real credible way forward. Even with municipal rules and pick-ups in place, 80% of solid waste still ends up in illegal landfills (Holland Circular Hotspot, 2021). Without trustworthy services, users cannot show where the waste goes. Resolving this need is crucial. Without reliable alternatives, businesses cannot move beyond the current situation of free municipal collection, which encourages negligence of the staff and possible greenwashing.

With this information gathered by the users it was decided to tackle the need for reliable and sustainable alternatives for waste pick up. It is feasible for Lima Compost to provide this, as the organization is already positioned as a specialized and credible service in waste pick-up. However, it needs to be understood that for the users it is not only important to have these alternatives, but they also must be visible, transparent and credible. This led the project to pay special attention to the visibility of Lima Compost. Furthermore, how this visibility can be strengthened through recognition and clear communication will be discussed in the next chapter.

## **Chapter III. Product or Service Design - Solution**

The following chapter explains how the challenge of visibility and awareness in the sustainable waste pick-up sector was translated into a concrete solution using agile methods. First, the process from the early stages of ideation to the development of prototypes is described and shows how user feedback improves each iteration. Second, it outlines how the narrative around the solution was constructed, why it can be considered both innovative and potentially disruptive and how the value proposition was defined to match user needs. It concludes with the presentation of the Minimum Viable Product (MVP), which brings these insights together in a tangible and scalable outcome.

### **3.1. Conception of the Product or Service**

The ideation process is a core step when it comes to prototyping, because it helps translate insights from user research into actionable ideas for Lima Compost. The ultimate goal of Lima Compost is to raise awareness and build trust in the company as a credible and sustainable alternative to municipal waste collection.

As a first step, the user needs were analyzed. This analysis defined six central insights that became the foundation of the ideation process. First, many potential customers are not aware that alternatives to municipal collection exist. This lack of awareness created the necessity to communicate that Lima Compost provides a different and more sustainable option. Second, there is a need for clarity about what Lima Compost actually does. Users want to understand the service in simple terms and to see how participating could easily contribute to sustainability and community wellbeing. Third, trust turned out to be a decisive issue. Users want clear and tangible results as proof that composting genuinely happens after collection. Without such evidence, doubts about reliability remain a barrier to adoption. Beyond this, for businesses it is particularly important to stand out in a competitive market by demonstrating their environmental responsibility in order to attract more customers and strengthen their reputation. At the same time, businesses face increasing pressure to comply with ESG requirements and recognized that doing so could also bring benefits, such as tax advantages for example. Finally, it became clear that for businesses the ecological arguments alone are not

sufficient. As a result, practical incentives, such as reputational or financial, are necessary to promote the adoption amongst businesses. The following six user needs were identified:

**Table 1**

*Six User Needs*

Awareness
Clarity
Trust
Differentiation
Compliance
Practical motivation

On this basis, the next step was to translate the identified needs into guiding questions. These questions should encourage creativity and at the same time keep the process aligned with the concerns of users. They addressed how awareness of alternatives to municipal waste collection could be raised, how the value proposition of Lima Compost could be explained more clearly, how tangible proof of composting could be provided, how businesses could stand out in competitive markets, how compliance with ESG requirements could be facilitated and what practical motivators might complement ecological arguments to encourage adoption.

To answer these questions, a brainstorming session was being held. Each team member had a limited time to respond to a question before passing it on to the next person, which ensured that everyone contributed to each theme while enforcing rapid and diverse idea generation. The collected ideas were then organized and clustered on a Miro-Board (see Appendix G). That helped identifying connections and overlaps. The range of ideas was broad, going from digital formats such as social media campaigns, impact-tracking systems and storytelling to more tangible and experiential formats like certificates, door signs, community events and customer visits to composting sites. Importantly, no suggestion was dismissed at this stage, as even seemingly unrealistic ideas could inspire new directions or later adaptations.

In order to ensure that each user need was systematically addressed, the results were structured in a 6x6 Canvas that aligned each guiding question with a set of possible solutions

(see Appendix H). This step revealed, for example, that awareness could be promoted through partnerships, referrals and social media campaigns. Clarity could be improved through storytelling and community events, while trust could be strengthened through certificates, testimonials and photo documentation. Differentiation could be supported by visible recognition tools such as a door sign, for example. ESG compliance could be facilitated by manuals, certifications and impact reports and practical motivation could be fostered through monetary incentives, contract integration and a dedicated B2B landing page.

From this mapping, the following table shows the six ideas emerged as the most promising:

**Table 2**

*Outcome 6x6 Canvas*

Referrals and network expansion	Organization of events	Visits to compost sites	Door sign	ESG manual guide	B2B landing page
---------------------------------	------------------------	-------------------------	-----------	------------------	------------------

These ideas stood out because they addressed the identified needs directly while balancing creativity and feasibility.

The final step of the ideation process was the evaluation of these six ideas through a cost–impact matrix (see Appendix I). In the low-cost, high-impact quadrant, three ideas stood out. Referrals were identified as a powerful trust-building mechanism, relying on existing networks to expand credibility at almost no cost. The B2B landing page promised to strengthen Lima Compost’s online presence by targeting companies directly and providing the clarity they require. The door sign offered immediate visibility in local communities, giving clients a tangible and highly visible way to demonstrate their sustainability efforts. Together, these three solutions combined scalability with effectiveness, while requiring minimal resources. In the low-cost, medium-impact quadrant, the use of photos and videos to document the composting process was placed. While this tool served primarily existing clients and therefore had limited potential to attract new customers, it still contributed to building transparency and trust at little expense. The high-cost, high-impact quadrant contained two options. Community events were recognized as highly effective in engaging users and strengthening community ties, but they

were also resource-intensive, requiring investment in space, catering and staff. The manual guide was assessed as a more professional but costly instrument, demanding effort in development and design. Despite the expense, it was considered a valuable long-term tool to enhance credibility, provide structure for ESG compliance and support clients with concrete documentation.

The cost–impact assessment made it clear which ideas could realistically be implemented in the short term and which would need more time and resources. After reviewing the results together with Lima Compost, the decision was taken to focus on the B2B website and the door sign. The client emphasized that all of the ideas remain valuable and should be realized in the long run, but it was also important not to create overpromises, due to the limited time. By prioritizing these two solutions, the team could deliver quick, tangible progress without overstretching resources. The website was chosen as a strategic step to reposition Lima Compost in the B2B market, shifting the company’s communication away from its household focus and tailoring it directly to the needs of businesses. The door sign was selected for its simplicity and immediate impact as a visible trust-building tool. This should allow clients to showcase their sustainability efforts to the public. Together, these two solutions aim to boost Lima Composts scalability and credibility, directly addressing the issues of awareness and trust (Castro-González et al., 2021).

### **3.1.1. Agile Prototypes**

After deciding on moving forward with the B2B landing page and the door sign, the next step was to transform these concepts into concrete solutions. This chapter describes how both ideas were developed through an agile prototyping approach. Each prototype went through several sprint cycles in which it was tested with users, evaluated and then adapted based on the results. The different stages of the Prototypes and the interviews can be found in Appendix J-S. The Relevance Target Canvas was used to analyze feedback systematically and to distinguish between essential changes, very important improvements and additional refinements that could be integrated where possible.

### 3.1.1.1. Website Prototype

The first prototype to be developed was the B2B landing page, designed to reposition Lima Compost's digital presence towards business clients. The existing website had primarily targeted households, which meant that companies could not find the clear, transparent and accessible information they needed. The new landing page aimed to provide a seamless user experience, quick access to key details and an emphasis on external benefits such as cost savings, ESG compliance and reputational value. A style guide (see Appendix P) was created in collaboration with the client to ensure a coherent brand image and a professional structure.

The initial (see Appendix J) version included clear headlines, service descriptions and sections highlighting both Lima Compost's environmental and social impact, as well as the external advantages for businesses. At first glance, this gave a trustworthy impression. However, the first round of user interviews, revealed important weaknesses. The site was considered too text-heavy, making navigation difficult. The contact form was seen as overly simple and not suited for B2B clients, while the list of business partners lacked local relevance, which reduced authenticity. Furthermore, information regarding pricing was missing. At the same time, users highlighted positive elements such as the eco-friendly design, the personal story of the founder, and the success stories that helped build credibility. Based on this feedback, the prototype was revised (see Appendix L). The text was shortened, price information was added and a clear call to action button for customer support was introduced to strengthen interaction.

In the second sprint, testing again revealed critical gaps. The absence of a step-by-step explanation of the service and a clear list of accepted waste types were criticized. Users also requested more detailed pricing information and more contact options than a simple form, while a stronger emphasis on local success stories was seen as a desirable improvement. The prototype was therefore expanded (see Appendix N) with a new section that explained the entire process from container delivery to composting, including a detailed list of accepted and non-accepted waste. Success stories were revised to feature more Peruvian businesses, making them more relatable to local clients. Pricing information was written in more detail on the website and

direct contact options were added in the form of a phone number and an email address. These changes should make the site clearer, more practical and more user-friendly.

Within the third sprint, users still emphasized the need for a transparent and detailed pricing structure. This led to the creation of a dedicated subpage offering tiered plans for small and large businesses, ensuring comparability and clarity. Users also requested an example of the type of impact report they would receive, as proof of transparency and reliability. Another subpage was therefore created and a sample report was included, as well as the option to download it. Finally, the guidelines on accepted waste were made easier to access through a “Learn more” button, that is going to lead to a detailed overview. With these refinements, a transparent and user-friendly landing page, that combined clarity of information with practical features tailored to businesses, was created. By responding directly to user feedback at each stage, the final prototype aims to strengthen Lima Compost’s credibility and position it for growth in the B2B segment as research suggests (Castro-González et al., 2021).

### **3.1.1.2. Door Sign Prototype**

The second prototype of the door sign was developed to enhance the reputation and competitiveness of Lima Compost’s clients, while simultaneously increasing the brand exposure of Lima Compost. By placing the sign in front of the restaurant’s door, which is located in high-traffic areas, the sign is expected to provide more visibility for Lima Compost. The significant traffic in these areas ensures that thousands of people will see the door sign, thereby increasing the advertising impact for Lima Compost. Moreover, the content of the sign, saying that “all organic waste will be composted to nourish local gardens,” shows clients’ commitment to eco-friendly and socially responsible practices.

The initial version of the door sign (see Appendix Q) was designed to be concise, including green elements such as leaves, hands and a trash bin to promote sustainability and eco-friendliness. The hand-and-leaf motif was selected to align with the elements present on Lima Compost's new landing page, to be more consistent with the brand’s visual identity. Also, to go with Lima Compost's original logo, which included a cartoon house with hearts, many designs were explored to attempt to keep with the original theme. This was intended to keep a

playful design in order to relate to a wider audience and create the connection between the restaurants and the brand's eco-friendly mantra.

Within the second sprint, client feedback highlighted the desire for more content on the door sign to enhance customer understanding (see Appendix R). In response, the message was refined to state, “All organic waste will be composted to nourish local gardens,” providing clearer information about the process and the benefits of participation. This change aim to increase the clarity and uniqueness of the message, distinguishing the restaurants in a competitive industry. The revised content was designed to emphasize the restaurant's contribution to sustainability and promote a sense of responsibility.

As shown in Appendix S, the third sprint revealed that clients preferred to have the SDG 11 logo included. However, after researching, the use of this logo for commercial purposes is prohibited. Additionally, clients requested a Spanish version of the door sign, with the text positioned at the top to cater the local audience. These modifications were considered to enhance accessibility and localize the message's reach.

In the final sprint the feedback focus moved towards creating more engaging content. The phrase “los jardines locales” was replaced with “huertos comunitarios” to provide a more specific and meaningful reference to community gardens. Furthermore, a Quick Response (QR) code was added to the bottom of the sign to provide customers with direct access to additional information and resources of Lima Compost. This change was intended to encourage customer interaction and enhance engagement with Lima Compost.

### **3.2. Development of the Narrative**

To develop the solution for Lima Compost, different tools like the Canvas, storytelling and storyboarding were used to make sure the approach focused on the user and solved the main problem. These tools helped turn insights from user research into a clear story, focusing on user needs and guiding the process from idea to final product design. The following sections explain how these tools were developed, showing how users helped shape the understanding of the problem and the design of the solution and summarizing the key steps that led to the MVP in Chapter 3.5.

### **3.2.1. Narrative Development Process**

The development of the story built on the user needs, identified through user research in Chapter 2 and the ideation outcomes described in Section 3.1. Its purpose was to frame the solutions within a complete user story, make sure that design decisions remained grounded in real user experiences. The Meta User Persona, “Camila,” represented professionals in the hospitality and food and beverage industry, such as restaurant owners and sustainability managers. Her goals of running a responsible business and gaining recognition, while facing frustrations like low employee compliance in waste sorting, lack of reliable waste collection alternatives, and the challenges of ESG reporting.

A user journey map showed Camila’s interactions with waste management at work and home, illustrating positive and negative touchpoints. For example, she struggled with staff not sorting waste due to free municipal collection, yet she felt motivated when discussing recycling with her children. This map abstracts her needs into real situations, helping the team identify meaningful intervention points.

Brainstorming outputs were organized using the 6x6 canvas, matching user needs to potential solutions such as referral programs, community events, compost site visits, door plaques, operational guides, and a B2B landing page. A cost/impact matrix then helped prioritize low-cost, high-impact solutions, specifically the B2B landing page and door sign, for prototyping. These tools ensured that the story stayed user-centered, focused on improving trust, awareness and ESG compliance, while remaining feasible to implement.

Together, these methods created a story where Lima Compost becomes a trusted partner, addressing both practical and emotional problems for users. This story supported the design direction chosen in Section 3.1 and guided the development of the MVP described in Chapter 3.5, ensuring that the final solutions were meaningful, actionable and aligned with Camila’s goals.

### **3.2.2. How Tools Shaped Understanding of the Problem, User and Solution**

These tools were important in understanding the social problem (poor organic waste management in Peru), defining the user (Camila, representing professionals in the catering

industry) and coming up with solutions (B2B website and door sign): The user journey map showed barriers in trash management, like employee oversee because of free municipal collection and the lack of reliable alternatives. This changed the problem from just waste disposal to a trust and awareness challenge, linking it to the environmental, economic and social impacts mentioned in Chapter 1.

Through interviews and user personas, the team got valuable insights from Camila's motivations (e.g., setting an example for her family and community) and frustrations (e.g., low employee compliance, difficulties with ESG reporting). Storyboarding turned these insights into a visual story of her daily experiences, which helped the team design solutions from her point of view.

The 6x6 canvas and cost/impact matrix helped filter and improve ideas, making sure the solutions addressed the user's needs. For example, the B2B landing page helped Camila's need for transparency and ESG compliance by providing clear information and impact data, while door sign could boost her business reputation by showing her sustainability efforts. These tools turned many ideas into the two workable prototypes described in Chapter 3.5.

The development of the story was a step-by-step process that combined user research, visual tools and methods to make sure Lima Compost's solutions were user-centered and practical. Tools like the user journey map, 6x6 canvas and cost/impact matrix changed Camila's needs and problems into real solutions, which led to the B2B landing page and door sign prototypes. These tools not only cleared up the problem and user needs but also gave a clear way to evaluate solutions, making sure they addressed the issues of organic waste management in Peru while improving user trust and business competitiveness. The final MVP, shown in Chapter 3.5, shows how these tools changed user insights into practical and scalable solutions.

### **3.3. Innovative and Disruptive Nature of the Product or Service**

Lima Compost provides an organic waste composting service in Peru, catering to both households and businesses. Further information regarding this service is provided in the introduction of this thesis.

Peru's capital, Lima, has a waste crisis that challenges in rapidly urbanizing developing countries. Creating approximately 9,000 tons of garbage each day, with about half consisting of organic waste that often ends up in landfills (European Union, 2023; Woima, n.d.). The city has sought new and innovative solutions over the past decade. This ongoing challenge has led to a change from traditional landfilling to more community-based composting. This has paved the way for companies like Lima Compost to develop and grow.

A case study of a solution similar to Lima Compost is Maribel Zamata Quispe's innovative household compost bin. In 2018, Zamata Quispe, a Lima-based educator, developed a simple yet effective design for composting organic waste in urban environments, particularly for those with limited space (Dávila, 2021). Her wooden compost bin allows organic waste to decompose evenly while minimizing odors and preventing pests, making it ideal for city residents. The design focuses on simplicity and accessibility, with minimal equipment required, which aligns with solutions like Lima Compost. Supported by the World Intellectual Property Organization's Inventor Assistance Program, Zamata Quispe acquired her patent in 2023 (Dávila, 2021).

Lima Compost's innovation is focusing on urban households, offering compact clay composting pots and pickup services for organic waste, mixing it with dried leaves and soil. They also offer free tutorials and guides, making composting more accessible and helping to fill the waste education gap in Peru. This approach fits with 2025 trends for affordable, scalable solutions, like the ones highlighted by the Holland Circular Hotspot in 2021.

In comparison, Sinba was established in 2016. It provides a broader waste management service in Lima. The focus is on both homes and businesses, like restaurants and hotels (Sinba, n.d.b). Both Sinba and Lima Compost focus on education. Sinba trains clients on how to segregate waste for better composting. This is similar to Lima Compost's tutorials for households (Sinba, n.d.a; Lima Compost, n.d.). Lima Compost's clay pots and pickup services are designed for small-scale urban use. Sinba, on the other hand, has a larger operation. It includes a "BioFactory" for processing and serves a wider range of clients. Both organizations reduce landfill waste and methane emissions. However, Lima Compost focuses on community-

driven, household-level composting. Sinba's approach is broader and business-oriented (Sinba, n.d.a; Lima Compost, n.d.).

Lima Compost's journey began with local inspiration. It has evolved into a community-focused solution. This highlights its role in Peru's changing waste management landscape. Compared to Sinba, Lima Compost prioritizes simplicity. In conclusion, Lima Compost is innovative because it offers a simple, scalable solution to waste management in urban areas. Sinba, however, tackles both organic and inorganic waste for large businesses.

### **3.4. Value Proposal**

The value proposition (see Appendix T) of Lima Compost can be understood by mapping the needs and expectations of its business customers against the company's solutions. On the customer side the jobs-to-be-done, gains that generate satisfaction and pains that create frustration, are essential.

For businesses, the essential jobs-to-be-done are the management of large volumes of organic waste, the ability to meet ESG goals and sustainability standards and the need to protect and enhance brand reputation by demonstrating responsibility. These are critical for day-to-day operations and for positioning the business as sustainable. Gains that follow from these jobs include a reliable and consistent waste pick-up service, proof of composting for improved ESG ratings, access to tax benefits and a stronger sustainability image with greater visibility among conscious customers. However, Lima Compost also has to face the pains, such as the lack of awareness of alternatives to municipal waste collection and the fact that environmental impact alone is not perceived as a strong motivator. There is also a fear of greenwashing, which highlights the need for transparent, verifiable evidence of composting. Additional pains include low compliance with waste sorting and the time- and knowledge-intensive nature of ESG documentation, which create stress for companies with limited sustainability resources.

Lima Compost can address these challenges through a balanced combination of joy generators and pain relievers. On the gain-creation side, solutions include the B2B website and the door sign, which provide visibility, credibility and proof of impact. They highlight extrinsic motivators, build engagement and position clients as sustainability leaders. On the pain-relief

side, the service provides official certifications, transparent communication through digital channels and ESG reports that reduce documentation burdens. Tangible evidence, such as photos and videos of the composting process can combat against greenwashing by making the impact verifiable. These elements are essential for building trust and compliance. Additional services such as trainings or community events can be supportive in building engagement.

In this way, the fit between customer profile and company offerings is clear. Lima Compost fulfills the core jobs of waste management and ESG compliance but also relieves pressing frustrations related to awareness, credibility and documentation. The B2B landing page directly supports businesses by providing transparent information and proof of impact in a professional, accessible format, while the door sign offers visible recognition that strengthens credibility and signals sustainability commitments to customers and partners. Together, these solutions are crucial for enhancing brand visibility, building trust and positioning clients as environmentally responsible. This helps Lima Compost transform sustainability into a competitive advantage and helps businesses to meet their obligations.

### **3.5. Minimum Viable Product**

After three sprint cycles, the website and the door sign reached the MVP stage (Appendix U). At this point, the prototypes include all essential features that users had identified as deal breakers. Both solutions are simple enough to be implemented quickly, but also powerful enough to generate immediate impact.

The B2B landing page reached its MVP stage after three sprints. The final version includes a clear step-by-step explanation of the composting service, a list of accepted and non-accepted waste types and transparent pricing models. It also integrates two separate subpages, one includes a detailed breakdown of the prices and the other one includes a sample impact report to demonstrate the kind of data companies can use for ESG documentation. Moreover, it includes local success stories that strengthen authenticity and multiple contact options, in order to make the site more accessible and trustworthy. Now the B2B landing page allows businesses to understand the service, evaluate costs and benefits and use it as credible proof in their ESG reporting.

The door sign MVP for Lima Compost was developed through three sprints to meet clients' eco-friendly reputation and increase brand visibility, addressing user "Camila's" need for trust and recognition. The final MVP used "huertos comunitarios" for community gardens, added a QR code linking to the B2B landing page for more details, and kept the high-visibility design. User feedback shaped each step, beginning with clearer, local wording to adding a QR code for more engagement. The final MVP functions as a trust-building tool in everyday contexts. Moreover, it strengthens visibility in competitive markets and signals sustainable practices directly to customers. In addition, it is connecting Lima Compost with its clients and communities.

These solutions are viable, because they directly address the most pressing user needs such as clarity, transparency and recognition. They are simple for businesses to adopt, scalable for Lima Compost and effective in building both awareness and trust. Together, they form a toolkit that links digital transparency with physical visibility. That is expected to position Lima Compost to grow in the B2B market and at the same time enable clients to turn sustainability into a competitive advantage.

## Chapter IV. Business Model

The Business Model Canvas is used to describe as well as analyze entrepreneurial journeys by visualizing the key aspects of a business in a structured form (Murray & Scuotto, 2016). However, as studies show (Becker & Bröcker, 2021), there are some limitations to this business model, like lack of showing the broader purpose of the business. Hence, some more recent studies argue that business models should include social and sustainable impact as well as the purpose the company works for (Pepin et al., 2023). Therefore, this report focuses on the “B” Business Model, which is an enhanced version that includes environmental and social dimensions. In the case for Lima Compost, it allows to understand how the company creates, delivers and captures value within the Peruvian context.

### 4.1. Business Model Canvas

The following section looks deeper into the “B” Business Model (see Appendix V) and describes the value created, delivered and captured by Lima Compost, as well as some external factors that are not included within the model itself.

#### 4.1.1. Value Creation

Lima Compost tackles a very prominent problem in Peru, which is the management of organic waste. Approximately 12.8 million tons of food are wasted each year in the country (Cordova-Buiza et al., 2022). Moreover, around 58% of municipal waste is organic waste, yet most of it ends up in informal landfills or scattered in the streets, which creates severe environmental damage and public health risks (Holland Circular Hotspot, 2021). Only 1% right now is handled through formal channels (Holland Circular Hotspot, 2021). With this problem in mind, Lima Compost operates with a clear purpose. They want to turn organic waste into value for the community, by minimizing the waste on the streets and donating the produced compost to community gardens. They want to contribute to a greener and more sustainable Lima. This purpose can be seen in the value proposition, which goes beyond organic waste collection. Lima Compost offers a reliable pick-up service for businesses and households. Additionally, they are diversifying through services such as pet composting, dog poop collection, industrial grease trap composting and physical products like clay pots.

The company's key activities are the collection of organic waste, the production of compost and the delivery of educational workshops to raise awareness about sustainable practices. With the inclusion of the new visibility strategy, the maintenance of the website and the distribution of door signs are now also important activities. They do not involve the handling of physical waste, nonetheless they are essential for ensuring credibility and transparency. The key resources reflect these activities and include infrastructure such as composting facilities, transport vehicles and trained staff, as well as intangible resources like the company website.

Lima Compost's partnerships also demonstrate how value is created beyond operations. The company collaborates with community gardens and NGO's such as Fundación OLI. Key Customers such as the restaurant Limaná show the role as a service provider for sustainability-oriented businesses. With the additional visibility through the newly implemented tools, the company is now better equipped to expand partnerships across the sector. This links Lima Compost now directly to SDG 17.6, which calls for enhanced global partnerships through knowledge sharing, resource mobilization and stakeholder collaboration (United Nations, 2025c).

#### **4.1.2. Value Delivery**

Lima Compost initially targets both B2B and B2C clients, while focusing on eco-conscious households and pet owners in particular. However, the new strategy focuses more on the B2B clients in the hospitality and food and beverage industry. The channels used to reach these customers have traditionally included WhatsApp communication, personal interactions and social media platforms such as Instagram, Facebook, TikTok and LinkedIn. With the new website, the company gets a central communication channel that will serve as both a customer acquisition tool and transparency platform. The door signs will function as a physical channel for recognition.

Customer relationships have always been very close and focus on personal engagement. The new tools strengthen these relationships by providing validation and recognition, which enables the customers to demonstrate their sustainability efforts to their stakeholders. This

changes Lima Compost's standpoint from being a simple service provider to acting as a sustainability partner. This again aligns with SDG 17.6, because it shows the multi-stakeholder cooperation and visible recognition can strengthen partnerships.

#### **4.1.3. Value Capture**

Lima Compost's income streams are primarily through monthly fees for waste collection, dog waste pick-up and grease trap composting, as well as the one-time revenues from the pet composting services and sales of clay pots. The new business model highlights the visibility through the website and door signs, which will generate new customers. The cost structure on the other side shows expenses for rent, staff wages, fuel, vehicle maintenance, composting inputs and taxes. The new visibility strategy requires only minor investment, such as website development and door sign production.

Finally, the impact metrics are very important to Lima Compost's business model. Traditional indicators are the tones of organic waste diverted from landfills per month, reductions in CO<sub>2</sub> emissions, the number of households and businesses served, and the volume of compost donated to community gardens. With the new visibility strategy, two additional metrics are introduced, such as the number of businesses displaying door signs and website engagement data. These metrics highlight how Lima Compost captures not only economic but also social and environmental value.

#### **4.1.4. External Environment**

Because the Business Model Canvas does not take external environment into account (Becker & Bröcker, 2021), it is important to also talk about some of the major influences that impact Lima Compost.

Looking at it from a macroeconomic perspective, the forecasts look promising. Peru's economy is expected to grow at around 4% in 2025 (OECD, 2025). Moreover, a stable inflation and monetary policy present an environment where businesses can make long-term decisions and invest in sustainability-related solutions (OECD, 2025). For Lima Compost it means that the B2B clients are more likely to allocate resources to additional waste services. On the other

hand, the company itself can expand on infrastructure and digital visibility with a lower financial risk.

The political environment in Peru remains very uncertain. The total number of 43 political parties authorized to run for presidency in the elections in April 2026 leaves the political direction very fragmented (Monzón Kcomt, 2025). As an example, Fuerza Popular, one of the most influential parties, has historically placed little emphasis on environmental policy (Lau, 2021). Juntos por el Perú is a left-wing party that stands more for sustainability, nevertheless not all left-wing parties automatically follow ecological agendas. Peru Libre, despite being left leaning, has historically not prioritize sustainability within their government programs (Lau, 2021). This means that Lima Compost cannot rely on political backup and has to build their own credibility and visibility to gain trust instead. Another layer of this uncertainty is that even when parties campaign on sustainability, it is not certain that the promises will actually be implemented once they gain power. Studies show that in Peru, there is a wide gap between campaign promises and government action (Carrión & Zárate, 2023). Furthermore, the overall business environment in Peru is heavily shaped by crime and corruption, which is linked to politics. Extortion has become one of the fastest-growing criminal activities in recent years. Between 2021 and 2023, reported cases increased by almost 370%, from around 4,761 to over 22,000 incidents (The World, 2024). This affects multiple sectors but especially small businesses, where criminal groups demand regular payments in exchange for “protection” (Global Organized Crime Index, 2023). For companies such as Lima Compost, this environment could translate into a change in security costs, potential exposure to extortion and an overall climate of fear.

Different industry dynamics further shape the business model. As previously mentioned, organic waste accounts for around 58% of municipal solid waste, nevertheless only 1% is formally cared for (Holland Circular Hotspot, 2021). However, there is a growing policy focus on composting and circular economy models, because of national strategies aiming to increase organic waste recovery to 66% by 2040 (CCAC, 2021). This target is built upon Peru’s broader sustainability commitments. The National Development Strategic Plan explicitly aligns

with the 2030 Agenda for Sustainable Development, highlighting waste reduction and circular models as key levers to achieve responsible consumption and production (United Nations, n.d.). The Ministry of Economy and Finance has also introduced a Sustainable Bond Framework, which mobilizes capital for green initiatives such as sustainable waste systems (Ministerio de Economía y Finanzas, 2021). Moreover, the World Food Programme Country Strategic Plan 2023-2026 underlines food security and waste reduction (World Food Programme, 2022). Therefore, these frameworks show that industry dynamics around waste management in Peru increasingly favors composting solutions, and this strengthens Lima Compost's long-term positioning.

Competition in the industry is also emerging. Companies like Sinba provide circular economy solutions. They focus on the recovery and transformation of organic waste (Sinba, n.d.a). Nevertheless, Lima Compost differentiates itself by combining reliable waste collection with customer-facing visibility. This approach allows Lima Compost to stand out from its competitors by offering not only operational reliability but also proof of impact.

#### **4.2. Financial Viability of the Business Model**

The financial viability of Lima Compost's current business model was evaluated by comparing revenues with the cost structure and calculating the break-even point. The table below shows the main outcome. Detailed Calculations can be found in Appendix W.

**Table 3**

*Current Business Model - Break Even Revenue*

	Households	Businesses	Total
Revenue	32 040 USD	32 050 USD	64 090 USD
Contribution Margin Ratio	0.92	0.97	0.94
Break-Even revenue	11 414 USD	10 764 USD	22 158 USD

The calculations are based on a fixed cost structure of USD 20,900 per month, which was allocated proportionally between households and businesses according to their share of total revenues. Variable costs were assumed from the data provided by Lima Compost and based on international industry benchmarks. On this basis unit costs were assigned to each

service category as follows: USD 1.50 for small households and USD 2.00 for large households (Hoorweg & Bhada-Tata, 2012), USD 7.00 for small businesses and USD 20.00 for large businesses (UNEP, 2018), USD 30.00 for pet composting clients (FAO, 2018), USD 3.00 for dog poop pickup (based on local market prices for biodegradable bags), USD 5.00 per ton for Industrial grease trap waste composting (OECD, 2019) and USD 10.00 per clay pod (local product prices). A detailed explanation for that reasoning can be found in the Appendix X.

The analysis of revenues and break-even points shows that both household and business segments are already profitable and are generating around USD 64,090 in monthly revenues. Given that Lima Compost's overall break-even revenue is estimated at USD 22,158, the company already operates at a solid surplus. With a contribution margin ratio of more than 90%, almost all revenue after variable costs contributes directly to covering fixed costs. That makes every new client a strong driver of profitability. Households generate about USD 32,040 per month, by far exceeding their break-even revenue of USD 11,414. Businesses contribute a very similar revenue of USD 32,050 per month but at an even higher efficiency, with a contribution margin ratio of 0.97 and a slightly lower break-even revenue of USD 10,764.

This comparison demonstrated that while households and businesses are profitable on their own, businesses operate with slightly higher efficiency and greater scalability, which makes it the more promising driver of future growth. For Lima Compost, this implies that prioritizing B2B clients offers the strongest potential to accelerate the path toward long-term financial stability. Studies suggest that credibility-enhancing measures are associated with higher adoption rates, because they reduce perceived risks and lower barriers for client adoption (Castro-González et al., 2021). By introducing credibility tools such as the B2B website and the door sign, Lima Compost is expected to secure higher-value contracts and build trust amongst new and already existing customers.

#### **4.2.1. Profitability Scenarios of the Updated Business Model**

The updated model introduces the B2B website and the door sign as credibility tools. Their function is to act as proof of composting and to signal alignment with ESG standards and thereby reducing adoption barriers for businesses. Research shows that credibility-enhancing

measures can raise purchase intention by a factor of two to three (Castro-González et al., 2021). Still, growth must be considered in the context of Lima Compost's current scale. The company serves around 65 business clients today and only about 1% of organic waste in Peru is formally processed, which indicates a low baseline market penetration (UNEP, 2018). This means that growth will not skyrocket overnight but is expected to grow steadily over time.

For the scenario analysis, three adoption paths were defined. In the conservative case, Lima Compost is expected to add 0.5–1 new client per quarter, which would result in 2–4 new clients per year. The realistic scenario assumes 1–1.5 new clients per quarter, resulting in 4–6 new clients annually. The optimistic projection foresees 2 new clients per quarter, which would turn into up to 8 new clients per year.

To simplify projections, an average company size was assumed. Furthermore, revenues from industrial grease trap waste composting were scaled in proportion to the growth of composting clients, since both services are offered to the same business segment. Fixed costs were assumed to remain constant across scenarios.

#### **4.2.1.1. Composting Service**

In the conservative case, adoption grows slowly at 2–4 new clients per year. This scenario expects limited political support for environmental regulation, for example under a party such as Fuerza Popular, which does not prioritize environmental policy. Growth would therefore rely mainly on businesses already motivated by ESG and reputational needs. In this scenario, macroeconomic conditions are expected to be stable. Peru's economy is expected to grow around 4% in 2025 with low inflation (OECD, 2025), but without a regulatory push, break-even would be reached later. With this growth rate, Lima Compost could reach about 68 clients by Year 1, 71 by Year 2, and 74 by Year 3.

In the realistic case, adoption grows at 4–6 new clients per year. That would result in around 70 clients by the end of Year 1, 75 by Year 2 and 80 by Year 3. This scenario assumes that the political environment is stable and that the 2026 elections do not drastically shift regulation. In addition, in this scenario, it is assumed that ESG awareness continues to rise slightly. Moreover, research suggests that international supply chains could push Peruvian

businesses to comply with sustainability standards, which would make Lima Compost's offer more attractive (Cheng et al., 2024). Not to forget the national waste strategy, that aims to raise organic waste recovery from 1% today to 66% by 2040 (CCAC, 2021). That would reinforce long-term demand for decentralized composting solutions.

In the optimistic case, adoption sums up to about 8 new clients per year. That would bring Lima Compost to 73 clients in Year 1, 77 in Year 2 and 89 in Year 3. However, this scenario assumes that a left-leaning or sustainability-focused government comes to power in 2026 and that they would enforce stricter rules on waste separation and ESG reporting. With that, subsidies or tax incentives could lower costs for sustainable businesses, which would further boost the demand. Under these circumstances, Lima Compost's services would move from being optional to becoming essential. With competitors such as Sinba focusing mainly on back-end recovery solutions, Lima Compost's credibility tools, impact reports, ESG certificates and door signs, provide a clear differentiator in the market. However, it should be noted that in reality, it seems that neither left- nor right-leaning parties in Peru are likely to prioritize ESG issues to this extent. The optimistic case therefore does not represent a highly probable scenario, but rather illustrates what could be possible if the political context were to take sustainability more seriously.

#### **4.2.1.2. Industrial Grease Trap Waste Composting as a Complementary Service**

Alongside composting, Lima Compost also offers Industrial grease trap waste composting as a complementary service. Although smaller in scale, it diversifies revenue and reinforces the company's role as a one-stop ESG partner. Since oil collection is provided to the same businesses that already generate organic waste, the oil pick-up is assumed to be scaled in proportion to the growth of composting clients. In a conservative scenario, oil volumes increase to 32.8 tons per month in Year 1. By Year 2 they reach 35.5 tons and by Year 3 38.3 tons per month. In a realistic scenario, in Year 1 volumes rise to 34.6 tons per month. By Year 2 this goes up to 39.2 tons and by Year 3 to 43.8 tons per month. In the optimistic case, a regulatory push or demand from biodiesel producers could significantly boost adoption, which would lead

volumes to climb in Year 1 to 37.4 tons per month. In Year 2 they would reach 44.8 tons and by Year 3 about 52.2 tons per month.

#### 4.2.1.3. Revenue and Liquidity Projections of the Advanced Business Model

Combining composting waste revenues with Industrial grease trap waste composting, the projected total annual revenues in Year 1 to 3 can be found in the table below:

**Table 4**

*Total Annual Revenue from Advanced Business Model in USD*

	Conservative Scenario	Realistic Scenario	Optimistic Scenario
Year 1:	421 776 USD	434 532 USD	453 708 USD
Year 2:	440 910 USD	466 464 USD	504 816 USD
Year 3:	460 086 USD	498 396 USD	555 924 USD

The analysis shows that the advanced model is financially viable across all three scenarios. Since the cost base remains largely unchanged and Lima Compost has already exceeded their Break-Even revenue and each new client acquired adds directly to profitability. The role of the advanced business model is therefore not to secure break-even, but rather to make growth more scalable.

While profitability indicates that the model is scalable, true scalability also depends on liquidity. To further assess financial sustainability, projected net cash flows were calculated for the same three-year period to demonstrate that sufficient liquidity is ensured. This step is essential to demonstrate that the business is not only viable on paper but also capable of sustaining its operations in practice.

**Table 5**

*Projects Net Cash Flows in USD*

	Conservative Scenario	Realistic Scenario	Optimistic Scenario
Year 1:	344 997 USD	355 781 USD	372 007 USD
Year 2:	360 921 USD	382 707 USD	413 826 USD
Year 3:	377 148 USD	409 717 USD	458 381 USD

The results clearly show that the advanced model generates a strongly positive net cash flows in all scenarios. Even in the conservative case, the business remains cash-positive, with

inflows of around USD 345,000 in Year 1, rising to USD 377,000 by Year 3. Under realistic assumptions, the net cash flows increase from approximately USD 356,000 to over USD 409,000 from Year 1- Year 3. In the optimistic scenario, they reach nearly USD 458,000 by Year 3. These findings underline that the model is financially robust and improving in profitability and liquidity.

The calculations are based on the current state of knowledge and therefore include certain assumptions and simplifications. Costs were held constant over the three years, as more detailed long-term data on variable and fixed expenses is not yet available. A corporate income tax rate of 18 %, reflecting Peru's statutory level, was applied uniformly throughout the projections. As no major investments are currently planned, the model does not account for additional capital expenditures. Revenue, cost and tax projections are simplified, but provide sufficient clarity for comparing different growth scenarios.

Taken together, the analysis demonstrates that the advanced business model is not only profitable but also generates substantial positive cash flows across all scenarios. This strengthens the argument for its implementation, as it shows that Lima Compost can achieve financial sustainability while expanding its services and preparing for scalable growth.

#### **4.3. Scalability/Exponentiality of the Business Model**

The business model of Lima Compost has a high potential for scalability, as it addresses a common problem in almost all Peruvian cities: the inadequate management of organic waste. At the national level, about all the organic waste, just a very small portion of waste is composted (less than 1%) as the majority ends up in informal landfills (Holland Circular Hotspot, 2021). By having a clear process of waste management into compost, the company can replicate its operations in new locations without changing its core value proposition. This growth is feasible because the used infrastructure, such as composting plants and logistic routes, tracks, can be expanded gradually, while the costs of serving each new client remain relatively low. Lately, in Lima, where around 95% of the client base is concentrated, shows that it is possible to serve both households and businesses through recurring contracts, which generate stable revenues and support expansion planning. The recent entry into Trujillo confirms that the

model can also work in other cities, even in contexts where environmental knowledge is still limited, as long as it is accompanied by education and awareness programs.

From the perspective of scalability, the new implementations strengthen Lima Compost's potential for growth. The new proposal of the B2B website allows the company to attract and manage clients more efficiently across digital channels, reducing its reliance on face-to-face visits or a large commercial team. This helps to decrease acquisition costs and makes it easier to expand into other cities. By combining information and simplifying the registration process, the platform reaches companies that are looking for quick and reliable solutions to meet their sustainability goals. Academic studies confirm that digital platforms provide Small and Medium Enterprises (SMEs) with cost-effective tools for marketing, operations and customer management, which supports their ability to scale without significantly increasing expenses (Iseal & Rahom, 2025; Hokmabadi et al., 2024). At the same time, the door sign works as a visibility and reputation tool. Every business that has it, means that there is an environmental commitment, building trust between consumers and encouraging other restaurants, hotels and cafés to adopt the service. Research also shows that sustainability labels increase consumer confidence and improve the perceived quality of environmental information, creating positive peer-to-peer adoption effects (Sanchez- Fernandez & Martinez- Lopez, 2025).

When considering exponentiality, Lima Compost is already supported by external drivers such as rising ESG requirements, the need for measurable sustainability results and diversified revenue streams that include compost sales, composting equipment and educational services. The new B2B website and door sign accelerate this potential even further. The digital platform makes nationwide reach possible without the need for immediate physical presence in each location, while the door sign increases local visibility and promotes imitation, reinforcing the company's reputation. Taken together, these measures not only enrich the value proposition but also place Lima Compost in a position to achieve steady growth while expanding more quickly into new regions, generating a multiplier effect in the transition toward sustainable cities.

Beyond the technical aspects of the model, the political and social context in which Lima Compost operates also shapes its growth opportunities. With the 2026 general elections approaching and a highly fragmented political landscape, the company's ability to scale independently becomes a strategic advantage. Unlike many sustainability initiatives in Peru that rely on government subsidies or programs that often shift with each administration, Lima Compost builds its expansion on recurring contracts with households and businesses. This stable private revenue base provides resilience in a volatile institutional environment. Research on Peru highlights that political instability and policy discontinuity remain major obstacles to achieving the Sustainable Development Goals, which is why models less dependent on the state tend to show greater resilience (AUN, 2023).

From the perspective of exponentiality, political uncertainty also reinforces the importance of visibility and reputation strategies. In societies like Peru, where trust in institutions is reduced (Carrión & Zárate, 2023), consumers are more able to place their confidence in private actors that can demonstrate tangible environmental and social impact. In this sense, the door sign and the B2B website are not just marketing tools; they act as mechanisms that build legitimacy and foster peer-to-peer trust networks. Studies have shown that, in contexts of political risk, companies that strengthen their ESG practices gain competitive advantages by earning credibility with both consumers and private partners (Erzurumlu et al., 2025). For Lima Compost, this means that adoption can accelerate not through state regulations, but through social and reputational pressure generated among businesses and communities seeking to stand out.

The electoral outcome could also influence the dynamics of scalability and exponentiality. Academic literature suggests that when governments with strong environmental agendas come to power, they often introduce stricter regulations and fiscal incentives that reinforce the scalability of sustainable models (Del Río & Bleda, 2012). Likewise, international experiences show that consistent green policies tend to create multiplier effects in the adoption of sustainable practices, accelerating their spread in the market (Jacobs, 2016). In contrast, if a government less committed to sustainability were to prevail, Lima Compost's growth would

rely even more on private demand and the social legitimacy it builds through certifications, reputation and visibility. In both scenarios, however, the company retains its dual strength: the ability to grow efficiently through scalability, and to expand rapidly through exponentiality driven by trust networks and imitation effects.

#### **4.4. Social Sustainability of the Business Model**

Lima Compost's business model is both socially sustainable and environmentally protective, with social responsibility and economic viability to create value. By addressing Peru's organic waste issues, it helps the environment and equity and aligns with SDGs.

Lima Compost is committed to addressing the issue of municipal waste in Peru, with approximately 58% of it being organic waste, which often ends up in illegal dumps, causing pollution (Holland Circular Hotspot, 2021). Its composting reduces methane emissions, a harmful gas (IPCC, 2021), and creates natural fertilizers that improve soil health which is aligned with SDG 11 (Sustainable Cities) (United Nations, 2025a). They also have educational programs which is aligned with SDG 13 (Climate Action) (United Nations, 2025b) and donates the compost to community gardens, helping create a circular economy. Socially the company provides stable jobs to 18 people, with 80% in field roles, providing stable jobs (SDG 8) (United Nations, 2025d). Partnerships with NGOs like Fundación Oli and local gardens (SDG 17) (United Nations, 2025c) and have impact reports help business clients meet environmental goals. The business model grows by long-term value through network effects, where clients' efforts in sustainability attract others. This is supported by ESG pressures and income from both compost and education. By reducing Lima's daily waste, it helps improve community health, and plans to expand to places like Cusco will make it easier to access.

In conclusion, Lima Compost's model helps solve waste problems and raise awareness while creating jobs and partnerships. Its focus on sustainability and ability to grow make a long-term positive impact on both the environment and society, helping Peru move toward a circular economy.

## Chapter V. Final Recommendations

Within this consulting project, the main focus was on strengthening Lima Compost's visibility and credibility in the B2B segment. Next to the two core solutions, the B2B website and the door sign the team also identified a set of ideas that can further strengthen Lima Compost's positioning in the market.

First, Lima Compost is advised to activate their existing client base more directly through referrals. This could happen, for example by setting up a simple referral program, where both the referring and the referred business receive a small benefit. Lima Compost could expand its network at low cost. This approach would build on peer credibility and make customer acquisition more efficient.

Another way to strengthen visibility is through community events, such as composting days in community gardens or participation in local sustainability fairs. These occasions create space for networking, raise awareness about composting practices and generate authentic content for digital channels.

Trust could also be deepened by inviting business clients to visit the composting sites. Experiencing the process out of first-hand, from waste collection to the production of compost, would not only make the service more transparent but would also provide clients with compelling stories and proof they can share with their stakeholders.

Finally, the development of a concise manual tailored to business clients would provide a very practical tool. The guide could include a visual chart for waste separation, recommendations for storage and hygiene and a simple tracking sheet that connects directly to the data already presented in the impact report. Offering both a printed version for use in kitchens and a downloadable PDF would make the manual easy to integrate into daily routines, while at the same time reinforcing the brand's professionalism through the established style guide.

Taken together, these measures build on the solutions already developed in this project, the B2B website, the door sign, the style guide and the impact report and show how Lima Compost can continue to expand its credibility and visibility in a scalable way.

## Conclusions

This thesis has shown how Lima Compost, as a young social enterprise, addresses one of Peru's most pressing environmental and social challenges, the inadequate management of organic waste. By transforming waste into compost and linking operations to community-based practices, Lima Compost not only reduces environmental harm but also strengthens social responsibility and awareness. The research and consulting process demonstrated that while both households and businesses contribute to the company's growth, the B2B segment holds the strongest potential for scalable and sustainable expansion. Businesses generate larger volumes of organic waste, face increasing ESG and reputational pressures and can become multipliers of impact when their practices are made visible. Strengthening credibility and visibility in this segment is therefore key for Lima Compost's long-term positioning.

Through user research, the user needs for awareness, clarity, trust, differentiation, compliance and practical motivation were identified as decisive and guided the development of two core solutions, the B2B website and the door sign. Both reached the MVP stage through agile prototyping and repeated user feedback. Together, they connect digital transparency with physical visibility.

The analysis of the updated business model confirmed its financial viability, with positive contribution margins, strong cash flows in all projection scenarios and clear pathways for scalability. Beyond economics, Lima Compost's model also demonstrated social sustainability by creating stable jobs, building partnerships with NGOs and community gardens and contributing to multiple SDGs.

Finally, the recommendations presented in this thesis, including referral programs, community events, compost site visits and a practical manual for businesses, extend the visibility strategy into a broader toolkit for growth. Together with the MVP solutions, these measures strengthen Lima Compost's credibility, expand its network effects and reinforce its ability to position sustainability as a competitive advantage. With the right combination of credibility tools Lima Compost can continue to scale as a visible, trusted, and impactful player in Peru's transition toward a circular economy.

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## Appendices

### Appendix A

#### Corporate Client Portfolio

<b>Nro.</b>	<b>Corporate Clients</b>	<b>Nro.</b>	<b>Corporate Clients</b>
1	ANCRO S.R.L.	23	PROBOCA
2	BID	24	PROMOTORA MIRAFLORES S.A.C.
3	CELSA	25	PWC
4	COLEGIO MARKHAM	26	QUIMTIA
5	CORPORACION PRIMAX S.A.	27	RESITER PERU S.A.C.
6	DALVFA FOOD SERVICE E.I.R.L.	28	RESTAURANTE AYDE
7	DOOMO SALTADO	29	REVOLUTION KNITS S.R.L.
8	ENGIE	30	RÍMAC
9	ENVAK	31	ROLLOS DE PAPEL
10	GESTION DE SERVICIOS AMBIENTALES S.A.C.	32	SERVICIOS GASTRONÓMICOS - LIMANÁ
11	GRUPO BEST PERU S.A.C.	33	SIEMENS LURIN
12	GTM PERU	34	SODEXO
13	HOTEL FAIRFIELD	35	SOLDEX SA
14	INVERSIONES GENERALES MHR S.A.C.	36	SUPERFOODS BRANDS S.A.C.
15	IXM	37	TALLER GASTRONOMICO SOCIEDAD ANONIMA CERRADA
16	LATAM LP	38	TERRAVERDE INGENIEROS S.A.C.
17	MARCO PERUANA	39	ULLOA
18	MEGACENTRO LURÍN S.A.C.	40	UNICEF
19	METROCOLOR	41	UNIVERSIDAD NACIONAL AGRARIA LA MOLINA
20	MSC PERU	42	VIAJERO HOSTELS
21	OFICINA PODEROSA - LIMA	43	WE WORK MIRAFLORES
22	PRAXIS ECOLOGY S.A.C.	44	WE WORK SAN ISIDRO

**Appendix B**

Lima Compost's Services



Pick up of Organic Waste



Pet Composting



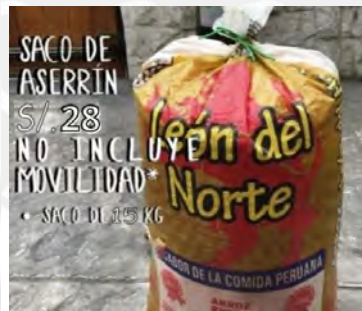
Compost bin for sale



Dog Poop Pick up



Compost bag for sale



Sawdust for sale



Cooking oil Pick Up

**Appendix C**  
Interview Guide

1. BIO	Tell me a bit about yourself? Age, job title, What is your role in the company and how long have you worked in this field?
2. ACTIVITIES	What does a typical workday look like for you? What happens after your workday?
3. BELIEFS	What are some values or principles that guide you? How important is sustainability in your work and personal life?
4. PROBLEMS	What are some problems you have everyday at work? Is there anything frustrating about dealing with waste for you?
5. FAMILY	Can you tell me a bit more about the most important people in your (Personal and professional) life?
6. SOCIAL CIRCLE	What does a typical day look like for you? a. Not just at work also after and before



## Appendix D

### User Interviews

#### Persona 1: Exequiels Albeiros

##### Basic Information:

- Name: Exequiels Albeiros
- Age: 37
- Location: Argentina (formerly lived in Peru for 10 years)
- Role: Responsible for student-related matters, focusing on education and equity
- Time in Role: 4 years as a coordinator in international projects; current role duration unspecified.

##### Background & Experience:

- Professional Background: Has worked as a coordinator in international projects and is currently focused on student affairs.
- Core Values: Deeply passionate about helping others and seeing the direct impact of their work. Focuses on sustainability and is committed to eco-friendly living.
- Motivation: Inspired by personal experiences in Peru, particularly their father's involvement in a local project in 2002. Their wife plays a key role in their motivations.

##### Daily Activities:

- Morning Routine: Wakes up at 5 AM, checks emails during breakfast. Morning meetings involve discussing next steps and team tasks.
- Workday: Engages in meetings with partners, generates reports, and leads team progress reviews. Involved in training programs, especially for people with disabilities, focusing on sustainability.
- Evening Activities: After work, sometimes teaches classes, enjoys coffee, goes for walks, or plays tennis. Prioritizes work-life balance.

##### Workplace Challenges:

- Waste Management Issues: While in Lima, encountered challenges with short-term thinking regarding waste management, inefficient collection practices, and a need for better education on post-collection processes.

##### Family & Social Circle:

- Family: Wife is a central part of their life.
- Mentorship: Their mentor, Sandro, has been an instrumental figure.
- Social Life: Maintains close relationships with their work team and professors. Balances work with socializing, teaching, and physical activities.

##### Personal Impact:

Motivation stems from experiences in Peru, the influence of their father, and a dedication to creating a positive impact in education, equity, and sustainability.

#### Persona 2: Sandra

##### Basic Information:

- Name: Sandra
- Age: 32
- Location: San Isidro, Lima, Peru
- Role: Environmental Management and Sustainability Analyst

- Time in Role: 1.5 years

#### Background & Experience:

- Professional Background: Manages environmental project follow-ups, certifications, and reporting. Works alongside one intern.
- Core Values: Believes in promoting holistic well-being and having a positive, national-level impact. Committed to minimizing negative effects throughout the entire value chain.
- Motivation: Passionate about shifting traditional mindsets and ensuring the company's wellness-focused mission reaches all stakeholders. Finds purpose in seeing environmental actions generate social impact.

#### Daily Activities:

- Workday: Starts with handling reports, reviewing certifications, and overseeing waste segregation in office and operational areas.
- Employee Induction: Leads environmental awareness training for new employees, emphasizing the purpose behind actions (e.g., compost for gardens, recyclables donated to social causes).

#### Workplace Challenges:

- Waste Management Issues: Raising environmental awareness is the biggest challenge. Employees struggle to adopt practices post-training. Operational staff are easier to manage due to contract terms. Needs more efficient segregation, especially during events. Finding aligned third-party suppliers is occasionally hard.

#### Family & Social Circle:

- Decision-Making: Environmental decisions are team-based, with some resistance to change.
- At Home: Recycling practices vary by district; it was easier in Surco than in San Miguel.
- Social & Industry Network: Participates in sustainability events like Perumin. Views sustainable companies as key allies.

#### Personal Impact:

Daily motivation comes from a wellness-first approach and driving long-term cultural change. Goals include robust climate risk management, raising awareness, promoting responsible resource use, and designing circular events.

### **Persona 3: Cristian**

#### Basic Information:

- Name: Cristian
- Age: 29
- Location: Lima, Peru (Restaurant address: Av. República de Panamá 4878)
- Role: Owner of Chifa Restaurant ("Chifa Girasol")
- Time in Role: 10 years

#### Background & Experience:

- Professional Background: Has owned and operated his Chifa restaurant for a decade, managing all aspects of the business.
- Core Values: Driven by financial security and upward mobility. Pragmatic about sustainability, seeing its direct link to customer attraction and business success.
- Motivation: Motivated by earning money, saving for retirement, and "moving up in life." Also finds motivation in being a person who "helps society."

#### Daily Activities:

- **Workday Routine:** Opens at 10:30 AM, assigns tasks, and takes breaks throughout the day. Returns to assist during customer peaks (12 PM-1 PM, 3 PM-4 PM, 8 PM-close). Closes at 11:00 PM.
- **After Work:** Goes home to sleep.

#### Workplace Challenges:

- **Primary Challenges:** Managing "human nature," including employee laziness and differences in mindset.
- **Waste Management Issues:** Has private arrangements with waste collectors. Notes that restaurant waste must be self-transported to disposal sites.

#### Family & Social Circle:

- **Family:** Lives alone. Values relatives, friends, and family.
- **Professional Relationships:** Values long-term employees, paying them more for their loyalty.
- **Social Life:** Meets friends for tea or meals during breaks.

#### Personal Impact:

Impact is on his immediate business and employees. Motivation is personal advancement, with sustainability practices being pragmatic and tied to business hygiene.

### **Persona 4: Fabiola Quispe**

#### Basic Information:

- **Name:** Fabiola Quispe
- **Age:** 47
- **Location:** Peru
- **Role:** Quality Assurance Engineer with environmental management responsibilities
- **Time in Role:** 20 years in quality assurance; current environmental responsibilities duration unspecified.

#### Background & Experience:

- **Professional Background:** Chemical engineer with two decades in the agroindustrial sector. Ensures compliance with quality and environmental regulations (MINAGRI).
- **Core Values:** Strong, non-negotiable belief in regulatory compliance. Committed to extending sustainability practices beyond compliance.
- **Motivation:** Driven by a desire to foster sustainable practices. Influenced by her family, particularly her sister who teaches recycling.

#### Daily Activities:

- **Workday:** Starts by reviewing schedules, focusing on high-risk products. Monitors waste segregation and environmental controls (e.g., wastewater).
- **After Work:** Researches sustainability practices and regulatory changes.

#### Workplace Challenges:

- **Primary Challenges:** Ensuring consistent waste segregation and protocol adherence by staff, requiring constant supervision.
- **Frustration Point:** Inconsistency in employee behavior post-training, indicating a need for cultural shift.

#### Family & Social Circle:

- **Household:** Lives with her two daughters, mother, and sister. Is divorced. Practices sustainability at home.
- **Decision-Making at Work:** Promotes training across all departments to encourage eco-conscious behaviors.

### Personal Impact:

Impact through ensuring compliance and instilling a culture of environmental responsibility. Work minimizes the company's environmental footprint. Influence extends to her family.

### **Persona 5: Miriam del Pilar Cobos Ayala**

#### Basic Information:

- Name: Miriam del Pilar Cobos Ayala
- Age: 51
- Location: Trujillo, Perú
- Role: General Manager & Head of Operations
- Time in Role: 4 years

#### Background & Experience:

- Professional Background: Leads a business providing environmental sanitation services (cistern cleaning, fumigation, disinsection).
- Core Values: Respect, leadership, responsibility, continuous improvement, and commitment to environmental care.
- Motivation: Initially motivated by family. Now driven by a personal desire to remain active, productive, and fulfilled as an individual.

#### Daily Activities:

- Workday Routine: Starts by checking emails and service requests. Coordinates visits, engages clients, and mobilizes the operations team, often joining them in the field.
- Evening/Personal Time: Enjoys swimming, gym, functional training, crafts, and watching Korean dramas.

#### Workplace Challenges:

- Common Problems: Ensuring consistent procedure follow-through, particularly regarding PPE and waste protocols (e.g., double-bagging).

#### Family & Social Circle:

- Household: Lives with her husband and two daughters. Maintains a close family relationship.
- Environmental Practices at Home: Actively practices waste segregation and reuses materials.

### Personal Impact:

Impact is direct through the environmental sanitation services her company provides, mitigating pollution. Leads by example professionally and personally, integrating sustainability into home life. Embodies personal fulfillment alongside professional responsibility.

## Appendix E

### Meta User Persona

Lima Compost

# Meta User

#### BIO

- 36 years old, married, lives in Miraflores, Lima
- Sustainability & Operations Manager
- Mother of two
- Degree in Environmental Engineering and an MBA in Operations

#### SOCIAL CIRCLE

- Works with operations, admin and kitchen teams
- Values-aligned network of professionals from environmental events and NGOs
- Trusts few suppliers
- Seeks authentic and action-oriented connections
- Motivated by purpose-driven allies



**CAMILA**

#### FAMILY

- Lives with her husband and two daughters
- Values: integrity, consistency, mutual respect helping others

#### BELIEFS

- Sustainability should be systemic
- Composting as community contribution
- Role Model for her daughters

#### ACTIVIDADES

- Family time at home
- Run or HIIT - workout with friends
- Environmental events

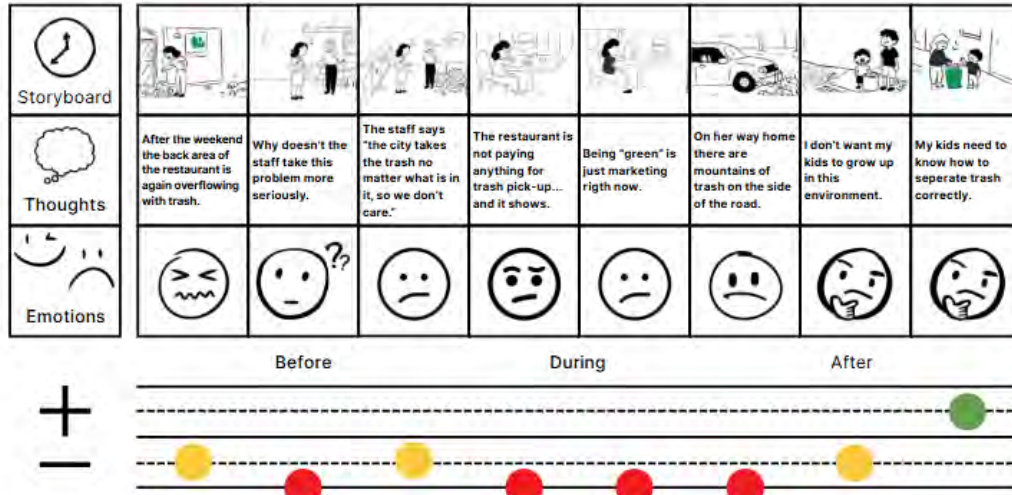


***"We want sustainability leaders in Lima to have reliable partners that turn everyday waste into social and environmental value."***



Appendix F  
User Experience Map

# User Experience Canvas



# Appendix G







## Miro Board

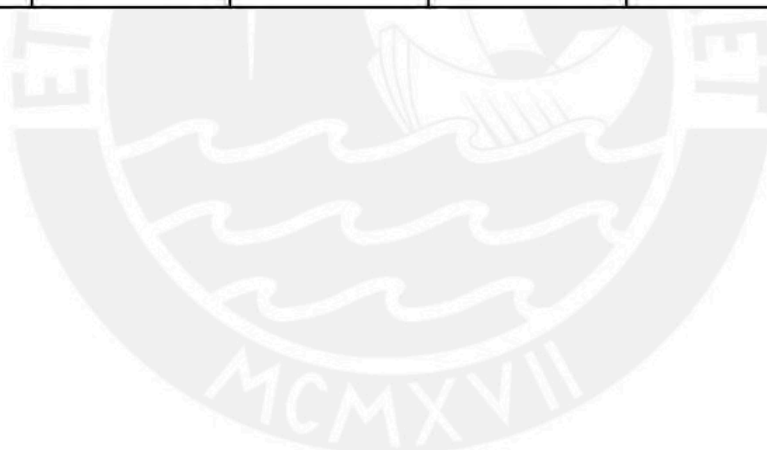
<https://miro.com/app/board/uXjVJbBSuUc=>



## Appendix H

### 6x6 Canvas

How can we get the user to see that there are different options for trash pickup?	How do we get the user to understand what Lima Compost is actually about?	How do we build trust in our service for the composting process?	How can we get the user to stand out in a competitive market?	How can we help the user to achieve the rising ESG requirements?	What are other practical reasons that could motivate users to participate in environmental initiatives?
Expand your network by working together with the government & private institutions	Storytelling	Certificates	Own sign in front of the door and Certificate	Manual Guide: teaching them by doing it	Being ahead of the competition
Paid social media ads	Show impact through Youtube Channel	Testimonials	strong reputation building	Seek international certificates	receive a monetary incentive e.g. funds
referrals from restaurants that are already using the service	Organize events e.g. to the community gardens	sending photos/videos to the customers	be present on social media and support their customers on social media	not only organic waste - correct disposal of other waste	Increased Consumer Demand and gaining trust
Guerilla Marketing (e.g. use busses for advertisement)	Work on brand image	Postcards as a gift (with seeds in it)	show impact they made to public	Create a system for tracking and reporting	Include environmental behavior in the contract
					
Referrals & network Expansion	Organize Events (e.g. at Community gardens)	Involving the customer by inviting them to the compost side	Own sign in front of the door and Certificate	Teaching them by doing it - Manual Guide	Build a separate B2B landing page to highlight impact & external motivation



**Appendix I**  
Cost Impact Matrix

Impact	+	Referrals & network Expansion  Door sign	B2B landing page	Organize Events  Manual Guide
	-	sending photos/videos to the customers		
		-	Cost	+



## Appendix J Prototype 1 Website





Home Impact About Us Contact

# Sustainable Waste Solutions for Your Business

We help restaurants, hotels and companies in Lima turn organic waste into measurable sustainability wins.

[START YOUR SERVICE](#)





### From Hobby to impact: The story of Lima Compost

What started as Raul's weekend hobby quickly grew into something bigger. With passion and persistence, Raul transformed composting into a professional service.


Today, Lima Compost partners with businesses across the city, collecting bins of organic waste each month and returning it to the earth as healthy compost. What began with one person and a compost bin has become a company with real impact: lowering disposal costs for businesses, reducing CO<sub>2</sub> emissions, and building a more sustainable Lima for everyone.

[Come and visit us](#)


+51 999 956 438  
lima@limacompost.com  
Av. Alcazar 100, Villa El Sol, Tulumayo 15042

[LEARN MORE ABOUT OUR MISSION](#)


### WHY CHOOSE US




**ESG & Compliance**  
Meet local regulations and international sustainability standards.



**Impact Reporting**  
Receive monthly analytics on waste diverted and CO<sub>2</sub> saved.



**Sustainable Leadership**  
Strengthen your brand by showing customers and stakeholders you're committed to a greener future.




**Community Engagement**  
Support local gardens, schools, and urban farming with compost from your waste.

[FIND THE RIGHT SOLUTION](#)


### EXPLORE OUR SERVICES

We Deliver Across Lima and Trujillo




**Organic Waste Pick-up**

- Weekly collection service with flexible schedules.
- Waste is composted in Peruvian and returned to the earth.
- Suitable plans for small to large businesses.



**Cooking Oil Collection**

- Safe collection of used cooking oil.
- Oil is recycled and reused for industrial uses.
- Service for both small kitchens and large industrial facilities.












**Pet Composting**

- Specialized composting for pet waste.
- Includes a 2-week process with weekly monitoring.
- Optional dog waste pick-up service.

[SEE PLANNING & PRICING](#)

### Trusted by businesses across Peru

Hotels, restaurants, and retailers already rely on Lima Compost to turn their organic waste into measurable sustainability results.

### CONTACT US

We're here to make waste simple and sustainable.

Name  Email

Phone


Message

[SEND](#)

### SUCCESS STORIES

**"Reliable and professional"**


As a hotel, consistency is key. Lima Compost's weekly pick-ups are always on time, and their team trained our staff to separate waste correctly. It's simple, efficient, and aligns with our sustainability goals.



**Blanca Torres**  
Operations Manager, Hotel Miraflores

**"Turning waste into community value"**


What we appreciate most is that our organic waste doesn't just disappear, it gets transformed into compost for local gardens. We can tell our customers their meals support greener neighborhoods.




**Javier Paredes**  
Sustainability Lead, Supermercado Andino

**"A partner in sustainability"**

Working with Lima Compost has made it easier for us to meet corporate sustainability targets. Beyond waste collection, they provide clear data for our ESG reporting and even involve us in community garden initiatives. It's more than a service, it feels like a partnership.



**Ricarda Salazar**  
Sustainability Manager, Andina



**LIMA COMPOST**

Andino, Av. Villa del Mar, Villa El Sol, Tulumayo 15042

Contact: lima@limacompost.com | 999 956 438

By using the #limacompost hashtag, you'll be able to follow us on Instagram.

## Appendix K

### Interview 1 Prototype Website

Katrin: So, this is our new landing page for B2B customers. Imagine you're working for a company and looking for a solution for your organic waste. You land on our webpage for the first time. What is the first thing that catches your attention?

Sofía: Honestly, the big text "Sustainable Waste Solutions for Your Business" is what grabs me right away. It's very clear and speaks directly to what I'm looking for. Right below that, the image of hands holding compost with a green plant also stands out. It makes me think of renewal and growth, which resonates with my values. It gives me the feeling that this is not just a waste service, but something with a positive environmental impact.

Katrin: And when you look at the homepage at first glance, what do you immediately like and don't like?

Sofía: What I like is the clarity of the message. I instantly understand that you provide sustainable waste solutions for businesses. The visuals are authentic and positive, the compost photo with a plant doesn't feel like "dirty waste." I also like the "Start Your Service" button. It feels actionable, like I can quickly learn how to get started. And I appreciate the emphasis on impact reporting and community engagement. That speaks to both my professional goals and personal values. What I don't like is that the homepage feels a bit long and text-heavy. There's a lot to scroll through before I find the most relevant parts. Some sections, like success stories and partner logos feel generic. I'd prefer more local examples from Peruvian businesses or NGOs I might actually know. The contact form at the end also feels too simple. I'd expect more options, like booking a consultation call or selecting the service I'm interested in.

Katrin: If you landed on this site for the first time, what would you think this business does?

Sofía: I'd think this business collects and manages organic waste from companies, restaurants, hotels, offices, and then turns it into compost instead of sending it to the dump. The wording about "sustainability wins" and the images with plants and soil tell me it's about creating positive environmental and social impact. I'd also assume they provide metrics and reports to help companies like mine show ESG progress. In short, I'd think: "This company helps me deal with organic waste in a responsible way and turns it into something good for the community and environment."

Katrin: Can you walk me through what you would do on this site to reach your goal?

Sofía: First, I'd look at the headline and image, that tells me they might solve my waste problem. Then I'd scan the "Why Choose Us" section, because I need to justify service decisions with compliance and impact data. Next, I'd check the services section closely to see what's included, how scalable it is for a medium-to-large business and whether they offer extra

services like oil collection. I'd then look at the success stories. Honestly, I'd care less about international logos and more about Peruvian success stories from companies like mine. Finally, I'd scroll to the contact section, but I'd prefer if there were a "Book a call" or "Request a quote" button higher up so I don't have to scroll all the way down. So my path would be: understand what they do, check compliance and impact, review services, validate with success stories, contact them.

Katrin: What information would you need before deciding to contact or work with this company?

Sofía: I'd need to know pricing, even a rough idea. Is it per pick-up, per month, per weight? Are there packages? Then, service details: how exactly does the pick-up work, do you provide containers, how often do you come? Also, what waste types are accepted? For compliance, I'd need to see if they provide official documentation and ESG-friendly reports. I'd want to know about reliability: coverage, punctuality, track record. And finally, proof of impact, where does the compost go, and which other local companies already work with them. Without this information, I'd hesitate to take the next step.

Katrin: After visiting the site, is there something that still feels confusing?

Sofía: Yes. Pricing is completely missing, and that's a key decision factor. The process of the service isn't fully explained, do they provide containers, how often do they collect, what happens if waste volumes change? I'm also not sure exactly what waste types are accepted. Impact reporting is mentioned but not shown. I'd like to see an example report. Finally, sometimes the messaging seems to mix households and businesses. For me, the B2B page should focus only on business needs like compliance and scalability.

Katrin: Which parts of the site felt most helpful to you?

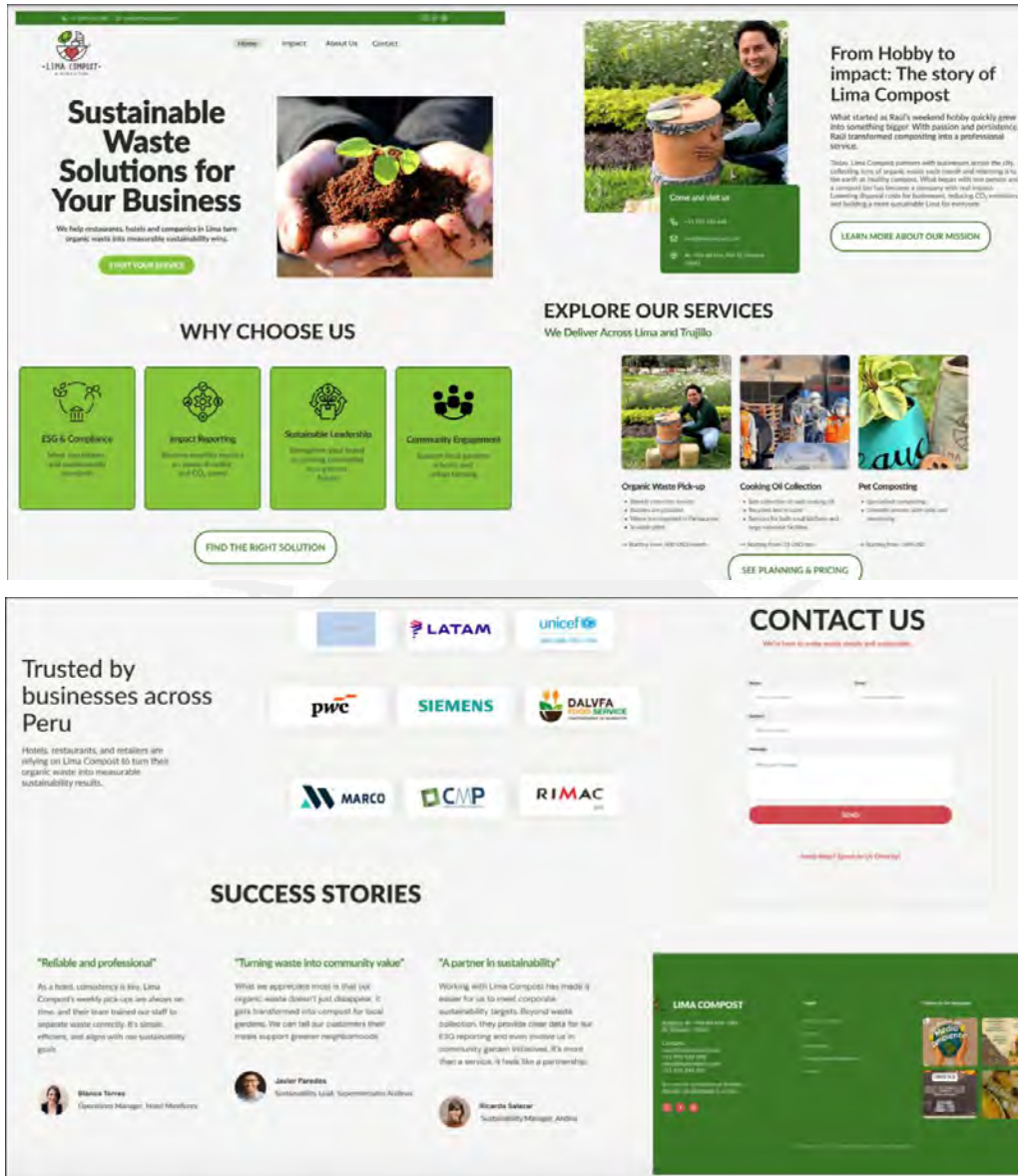
Sofía: The "Why Choose Us" section was very clear and aligned with what I care about, ESG compliance, impact reporting, community engagement. The services overview gave me a sense of what's offered, even if I wanted more detail. And the success stories, especially from other managers, made it feel credible. I also liked the visuals, they communicate impact and transformation, not just waste.

Katrin: What are you missing? And if you could change one thing about the website to make it more useful for your business, what would it be?

Sofía: I'm missing pricing, a step-by-step explanation of the service, concrete proof of impact like an example report, and more local references. If I could change one thing, I'd add a "For Businesses: How It Works" section, very visual and simple: containers delivered, staff separates waste with training, pick-up on schedule, monthly reports, compost goes to community projects. That would make the service much clearer and easier to explain to my tea

## Appendix L

### Prototype 2 Website (After first Sprint)



## Appendix M

### Interview 2 Prototype Website

Katrin: When you look at this homepage, what is the first thing that catches your attention?

Diego: The first thing that catches my attention is the big headline “Sustainable Waste Solutions for Your Business” along with the image of hands holding compost and a small plant. It’s very direct and clear about what the company offers, and the picture reinforces the idea of turning waste into something positive. It immediately tells me this is about sustainability and business waste management, which is exactly what I’d be looking for in my role.

Katrin: Looking at the website at first glance, what do you immediately like or don’t like?

Diego: What I like is the clarity of the page, I know right away this is about sustainable waste solutions for businesses. The “Why Choose Us” section is strong, because it speaks directly to ESG, compliance, impact reporting, and leadership, exactly the language I need for my work. I also like that the services section now shows prices. Even if they’re just starting points, it helps me quickly understand if this is realistic for my company. And the logos and testimonials from recognizable organizations in Peru make the service feel credible and relevant.

What I don’t like is that the page is still a bit text-heavy. I have to scroll and read quite a lot. Some visuals or infographics would make it easier to digest. The contact form still feels very standard, I would prefer a “Book a call” or “Request a quote” button directly next to the services. The pricing is helpful, but I’m still not sure what exactly is included or how scalable the plans are. Overall, it feels more professional and targeted to businesses now, but I’d still want the process and next steps to be a little clearer and more interactive.

Interviewer: If you landed on this site for the first time, what would you think this business does?

Diego: I’d think this business collects organic and other types of waste from companies, like restaurants, hotels, and offices and then turns it into compost or recycled products instead of sending it to landfills. From the services, I also understand that they offer cooking oil collection and even pet waste composting, which shows they cover more than just food scraps. The emphasis on impact reporting and compliance makes me think they’re not only about waste pickup but also about helping businesses meet sustainability standards and communicate their results. In my head, the message is: “This company helps us deal with our organic waste in a sustainable, professional way while giving us measurable proof of our impact.”

Katrin: Can you walk me through what you would do on this site to reach your goal?

Diego: If my goal is to see whether I want to contact them, I’d go step by step. First, I’d look at the headline and image to confirm I’m in the right place. Then I’d check the “Why Choose Us” section, because it directly connects to ESG and impact things I need to justify decisions at

work. After that, I'd spend the most time on the services section. The descriptions are clear, and the pricing is useful, though I'd want to know if plans are flexible for bigger businesses.

Next, I'd look at the references. Seeing logos like LATAM, PwC, or Siemens makes me feel this is a serious company. The testimonials add trust, too. I'd skim the "About Us" section, since Raul's story makes it personal but isn't my top priority. Finally, I'd scroll to the contact form, though I'd prefer a button to request a quote or book a call right from the services section. So my path would be: understand the value, review services and pricing, validate with success stories, contact for a quote.

Katrin: What information do you need before deciding to contact or work with this company?

Diego: I'd need more detailed pricing, what's included, whether it's per pick-up, per container, or per month, and if there are extra costs. I'd also want clarity on the process: do they provide bins, how often are collections, what happens if we need more frequent pick-ups? I need a clear list of accepted and non-accepted waste types. Impact reporting is another big one, I'd like to see an example report to know what data I'll get. Scalability is key too: can they handle larger companies, not just small cafés, and do they cover my district in Lima? Finally, I'd want reassurance about reliability and consistency, ideally with references from similar Peruvian businesses. Without that, I couldn't confidently propose this to management.

Katrin: Is there something confusing that needs more clarification after you visited the site?

Diego: Yes. Pricing shows starting points, but I don't know what's included, how many containers, how many pick-ups, or what happens if we produce more waste. The process isn't fully explained: do they train my staff, deliver containers, or explain where the compost goes? Waste types also aren't clear, can I include cooked food, meat, or biodegradable packaging? And impact reporting is vague, I'd want to see what the reports actually look like. Overall, the offer looks professional, but the operational details are missing, so I can't yet imagine how this would work day-to-day in my company.

Katrin: What parts of the site felt most helpful to you?

Diego: The "Why Choose Us" section was very helpful because it directly connects to my responsibilities, ESG, compliance and impact reporting. The services section with pricing was also useful, because it gives me a sense of budget. The logos and testimonials reassured me that other serious companies trust them. And the visuals of compost and plants helped me see the service as part of a sustainability cycle, not just waste disposal. If I had to choose the most helpful part, it would be the services and pricing, because that's where I can quickly judge if this is relevant for my business.

Interviewer: What are you missing? And if you could change one thing about this website to make it more useful for your business, what would it be?

Diego: I'm missing a clear step-by-step explanation of how the service works, a full list of accepted waste types, an example impact report, and more clarity on how the pricing scales for

larger businesses. If I could change one thing, I would add a very visual “How It Works for Businesses” section right after the services. Something like: containers provided → staff separates waste → pick-up on schedule → monthly impact report → compost goes to community projects. That would remove most of my uncertainties and make it much easier to convince management.



# Appendix N

## Prototype 3 Website (After second sprint)



## Appendix O

### Interview 3 Prototype Website

Katrin: When you look at this homepage, what is the first thing that catches your attention?

Claudia: The bold headline “Sustainable Waste Solutions for Your Business” and the image of hands holding soil with a small plant. It’s direct, signals sustainability, and tells me right away this is about business waste management that creates value.

Katrin: Looking at the website at first glance, what do you immediately like or don’t like?

Claudia: Like: The headline clarity; the new How It Works section (it makes the process concrete); the accepted waste list; and recognizable client logos that build credibility.

Don’t like: Some sections still feel text-heavy (especially the story); pricing is shown but not clearly scalable for larger companies; the contact option feels generic—I’d prefer a prominent Request a Quote / Book a Call button. Overall much cleaner and more informative, but some details could surface faster.

Katrin: If you landed on this site for the first time, what would you think this business does?

Claudia: You collect and manage organic waste from companies in Lima/Trujillo and turn it into compost for agriculture and community projects. You also handle cooking oil and pet waste streams. Beyond pickup, you provide impact reporting for ESG and compliance. In short: a professional service that converts waste into measurable sustainability value.

Katrin: Can you walk me through what you would do on this site to reach your goal?

Claudia: Confirm relevance via the headline.

Scan Why Choose Us for ESG/impact language I need for management.

Review Services and pricing; check fit with budget and size.

Study How It Works and accepted waste to picture operations with my team.

Validate with references/testimonials.

Contact, ideally via a Request a Quote button; otherwise the form.

Interviewer: What information do you need before deciding to contact or work with this company?

Claudia: Pricing details: what’s included (bins, pickups/week, volume limits) and how it scales for larger companies. Accepted waste: crystal-clear yes/no (cooked food,

meat/bones, biodegradable packaging). Process: bins delivery, staff training, missed/extra pickup policy. Impact reporting: a sample report with KPIs (kg diverted, CO<sub>2</sub> saved, community impact). Coverage/reliability: my district, on-time guarantees, holiday handling. Comparable references: case studies from similar Peruvian businesses.

Katrin: What are your deal breakers?

Claudia: Clear process & accepted waste, if that's fuzzy, staff won't separate correctly and the system fails. Impact reporting quality, I need credible, useful data for ESG/management. If it's vague, I can't justify the spend.

Katrin: What would make you confident enough to contact despite those risks?

Claudia: A simple visual How It Works + a precise accepted/not-accepted list; a one-page sample impact report; and local case studies/testimonials from companies like mine. Those three together would get me to request a quote or pilot.

Katrin: Is there something confusing that needs more clarification after you visited the site?

Claudia: Yes: Pricing scope (what's included, extras, scaling for bigger sites).

Service flexibility (extra collections, surge weeks, costs).

Impact report format (show a sample). Waste types (explicit callouts on cooked foods, meat, biodegradable packaging). Concept is clear; day-to-day mechanics still need sharpening.

Katrin: What parts of the site felt most helpful to you?

Claudia: How It Works (reduces uncertainty), Accepted Waste list, Services + pricing (transparency), and Trusted by/logos (credibility). If I must pick one: How It Works—it unlocks operational confidence.

Katrin: What are you missing? And if you could change one thing to make it more useful for your business, what would it be?

Claudia: Missing: a sample impact report, more detail on pricing structure & scaling, tighter waste-type clarifications, and a clearer Request a Quote/Book a Call CTA.

If I could change one thing: add a report preview (one page with KPIs like kg diverted, CO<sub>2</sub> saved, community beneficiaries). That instantly shows value and helps me justify next steps internally.

## Appendix P

### Style Guide B2B Lima Compost

#### STYLEGUIDE FOR B2B

##### Logo



Logo for website



for documents,  
proposals

##### Text Styles:

###### HEADINGS:

Lato Black, all caps or title case)

###### Subheadings:

Lato Bold

###### Body:

Lato Regular, 16px

For stats, case study info:

Lato Regular 14px

##### Color Palette



**Primary:**  
Leaf Green #8bc640  
CTA and sustainability  
highlights



**Secondary:**  
Deep Green: #3e7c2c  
professional tone, hover  
states



**Accent:**  
Earth Red #d04f50  
impact stats

###### Neutrals:



Ink  
#1A1A1A



Urban Grey  
#B8B8B8



Light Grey  
#F2F2F2



Off White  
#F9F9F5

##### Buttons

###### Primary CTA:

START YOUR SERVICE

- Background: #8bc640
- Text: White, Lato Black, 20px
- Shape: 100% corner roundings

###### Secondary:

EXPLORE SOLUTIONS

- White background
- Leaf Green border (5px),
- Lato Bold text in Leaf Green

###### Alert / Important:

EXPLORE SOLUTIONS

- White background
- Leaf Green border (5px),
- Lato Bold text in Leaf Green



**Appendix Q**

Prototype 1 Door Sign



## Appendix R

### Prototype 2 Door Sign (After first Sprint)



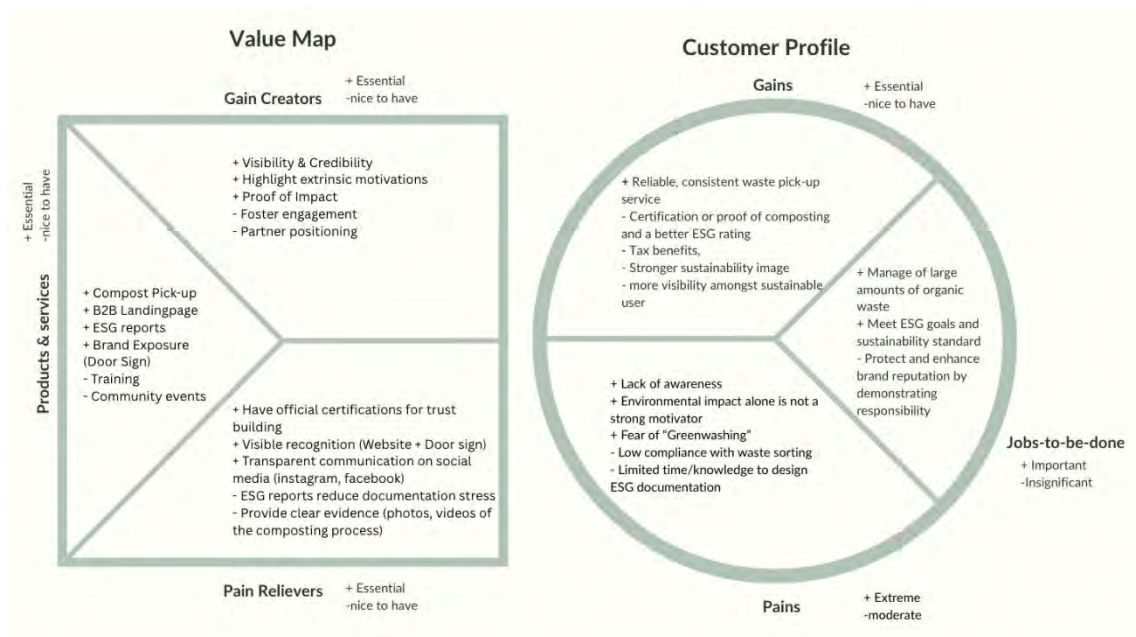
## Appendix S

### Prototype 3 Door Sign (After second Sprint)



## Appendix T

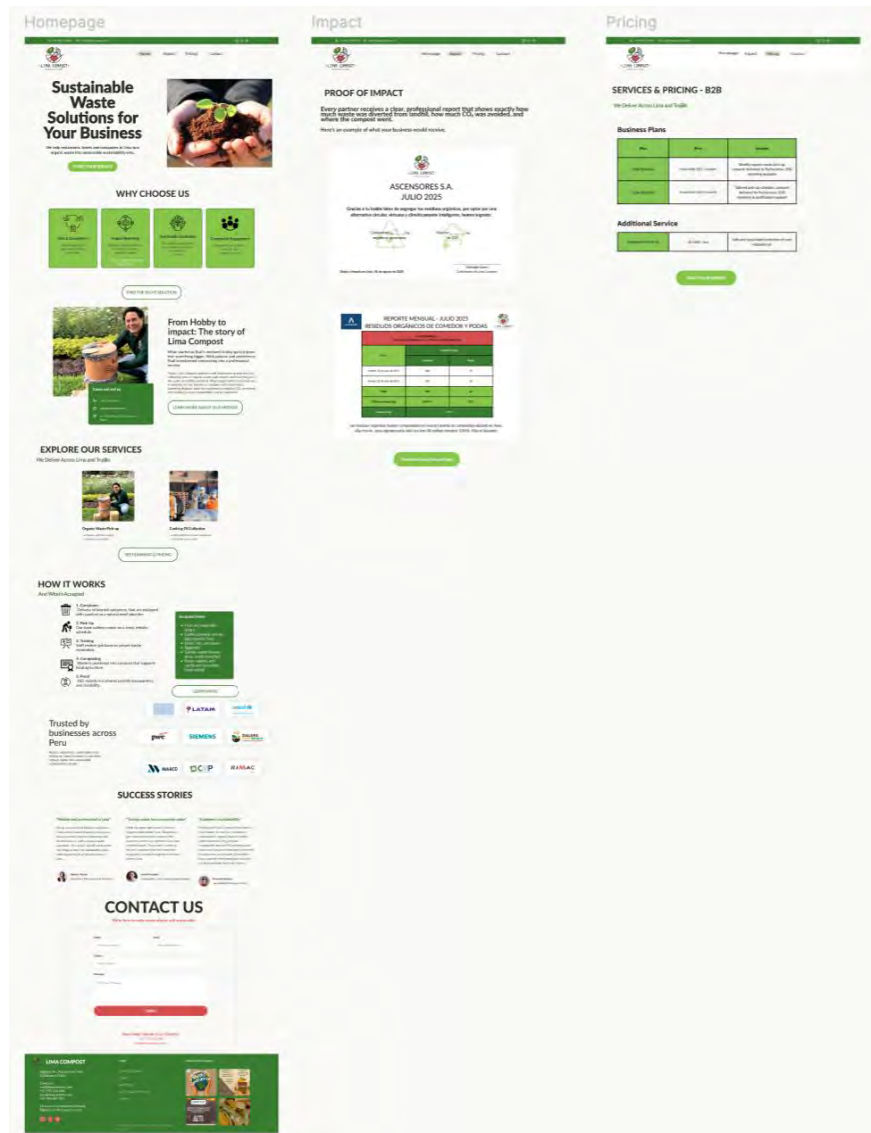
### Value Proposition



## Appendix U

### MVPs: Website & Door Sign

<https://www.figma.com/proto/46vyrNmYtyVmFsFUIGtXqb/Food---Website-Design--Community-?node-id=0-952&t=n75wmPCDAZHvOd7o-0&scaling=min-zoom&content-scaling=fixed&page-id=0%3A1>





## APPENDIX V

### Old Business Model

#### BUSINESS MODEL CANVAS



Company: Lima Compost

<b>Key Partners</b> - NGO (e.g. Fundación OLI) - Community gardens - Limaná - Car rental company - Machinery rental company	<b>Key Activities</b> - Periodic pick up of organic waste - Composting of organic waste - Delivery of report	<b>Problem</b> In Lima, most organic waste (+58%) ends up in informal landfills or on the streets, causing environmental damage and harming local communities due to the lack of reliable disposal alternatives.	<b>Customer Relationships</b> - Direct contact with customers - Personal interactions - Customer Support through WhatsApp - Fairs and workshops	<b>Customer Segments</b> - B2B: Restaurants, hotels, offices, and markets seeking reliable, sustainable waste solutions - B2C: Eco-conscious households aiming to cut waste. - Niche: Pet owners wanting green options for pet loss or daily dog waste.	
	<b>Key Resources</b> - Composting plant - Vehicles - Human talent (administration, operation) - Composting material (e.g. dry leaves, containers,...)	<b>Purpose</b> Lima Compost exists to turn organic waste into value for the community. Starting in the south, our vision is to expand citywide, creating a greener and more sustainable Lima for everyone.			
<b>Cost Structure:</b> - Rent of the venues 3000 usd/month - Manpower 1400 usd/month - Taxes 2500 usd/month - Fuel 700 usd/month - 1 rented vehicle 800 usd/month - Machinery 600 usd/month		<b>Value Proposition</b> A simple, reliable waste solution for businesses and households that keeps organic waste off streets and landfills. With triple impact, environmental, social, and economic, Lima Compost cuts costs, reduce CO <sub>2</sub> , and return nutrients to the soil.	<b>Channels</b> <b>Sales</b> - Whatsapp - Direct sales <b>Marketing</b> - LinkedIn - Mouth to mouth - Facebook - Instagram - Tiktok	<b>Impact Metrics</b> - Tons of organic waste diverted from landfills per month - CO <sub>2</sub> emissions reduced - Number of households and businesses actively participating (900+) - Amount of compost returned to the soil through for community gardens	<b>Revenue Streams</b> - Organic waste pick-up service (monthly earning) - Pet composting (one time earning) - Dog poop pickup (monthly earning) - Industrial greas trap waste composting (one time earning) - Cooking oil sales (one time earning) - Clay pot (one time earning)

### New Business Model

#### BUSINESS MODEL CANVAS + SOLUTION



Company: Lima Compost

<b>Key Partners</b> - NGO (e.g. Fundación OLI) - Community gardens - Limaná - Car rental company - Machinery rental company	<b>Key Activities</b> - Periodic pick up of organic waste - Composting of organic waste - Delivery of report	<b>Problem</b> In Lima, most organic waste (+58%) ends up in informal landfills or on the streets, causing environmental damage and harming local communities due to the lack of reliable disposal alternatives.	<b>Customer Relationships</b> - Direct contact with customers - Personal interactions - Customer Support through WhatsApp - Fairs and workshops + Recognition tools (door signs and website features) strengthen trust and create long-term loyalty by giving customers visible proof of their partnership	<b>Customer Segments</b> - B2B: Restaurants, hotels, offices, and markets seeking reliable, sustainable waste solutions - B2C: Eco-conscious households aiming to cut waste. - Niche: Pet owners wanting green options for pet loss or daily dog waste.	
	<b>Key Resources</b> - Composting plant - Vehicles - Human talent (administration, operation) - Composting material (e.g. dry leaves, containers,...) + Website	<b>Purpose</b> Lima Compost exists to turn organic waste into value for the community. Starting in the south, our vision is to expand citywide, creating a greener and more sustainable Lima for everyone.			
<b>Cost Structure:</b> - Rent of the venues 3000 usd/month - Manpower 1400 usd/month - Taxes 2500 usd/month - Fuel 700 usd/month - 1 rented vehicle 800 usd/month - Machinery 600 usd/month		<b>Value Proposition</b> A simple, reliable waste solution for businesses and households that keeps organic waste off streets and landfills. With triple impact, environmental, social, and economic, Lima Compost cuts costs, reduce CO <sub>2</sub> , and return nutrients to the soil. + Provides visibility and credibility for customers through door signs and website	<b>Channels</b> <b>Sales</b> - Whatsapp - Direct sales <b>Marketing</b> - LinkedIn - Mouth to mouth - Facebook - Instagram - Tiktok +Website + Door signs	<b>Impact Metrics</b> - Tons of organic waste diverted from landfills per month - CO <sub>2</sub> emissions reduced - Number of households and businesses actively participating (900+) - Amount of compost returned to the soil through for community gardens + Number of businesses displaying door signs + Website engagement and reach as proof of customer visibility	<b>Revenue Streams</b> - Organic waste pick-up service (monthly earning) - Pet composting (one time earning) - Dog poop pickup (monthly earning) - Industrial greas trap waste composting (one time earning) - Cooking oil sales (one time earning) - Clay pot (one time earning) + Stronger visibility increases customer acquisition, especially in the hospitality sector, and opens opportunities for premium recognition packages.

## APPENDIX W

## Calculations

<https://docs.google.com/spreadsheets/d/1SV0719DDs1Yk6Hh33-GhXkGojeEtHE-MOs4GiPblpSI/edit?gid=0#gid=0>

1. Revenue Current Business Model						In USD
<b>Waste Composting - Monthly Revenue:</b>						
	Households small	Households Big	Businesses Small	Businesses large	Businesses Average Size	
Number:	700.00	200.00	40.00	25.00	65.00	
Price:	26.00	35.00	400.00	600.00	500.00	
Revenue per Month	18,200.00	7,000.00	16,000.00	15,000.00	15,500.00	
Cost per Collection	1.50	2.00	7.00	20.00	13.50	
Variable Costs	1,050.00	400.00	280.00	500.00	877.50	
<b>Pet Composting:</b> (B2C)						
Number per Month	25.00	<b>Doog - Poop pickup:</b> (B2C)		Number per Month	70.00	
Price	170.00			Price	22.00	
Revenue per Month	4,250.00			Revenue per Month	1,540.00	
Cost per Unit	30.00			Cost per Unit	3.00	
Variable Costs	750.00			Variable Costs	210.00	
Break Even Point Pet Composting	127.35					
<b>Industrial grease trap waste compor (B2B)</b>						
per ton			<b>Clay Pods</b> (B2C)			
Number per Month	30.00			per pod		
Price	35.00			Number per Month	30.00	
Revenue	1,050.00			Price	35.00	
Cost per Unit	5.00			Revenue	1,050.00	
Variable Costs	150.00			Cost per Unit	10.00	
				Variable Costs	300.00	
<b>Revenue Households</b>						
Waste Composting	25,200.00			<b>Revenue Businesses</b> per month		
Pet Composting	4,250.00			Waste Composting	31,000.00	
Doog - Poop Pickup	1,540.00			Industrial grease trap waste con	1,050.00	
Clay Pods	1,050.00			<b>Total Revenue Businesses</b>	<b>32,050.00</b>	
<b>Total Revenue Households</b>	<b>32,040.00</b>			<b>Total Revenue Lima Compost</b>	<b>64,090.00</b>	
				Percentage Households	49.99%	
				Percentage Businesses	50.01%	
<b>2. Cost Structure</b>						
<b>Fixed Costs - per month</b>						
Rent	3,000.00			<b>Variable Costs</b>		
Salaries	14,000.00			Waste Composting Households	1,450.00	
taxes	2,500.00			Waste composting Businesses	780.00	
vehicles (2 owned, 1 licensed)	800.00			Pet Composting	750.00	
Machinery Rent	600.00			Doog Poop Pickup	210.00	
Total Fixed Costs	20,900.00			Industrial grease trap waste con	150.00	
Proportional Fixed Cost Household	10,448.37			Clay Pods	300.00	
Proportional Fixed Costs Businesses	10,451.63			<b>Total Variable Costs</b>	<b>3,640.00</b>	
<b>3. Break Even Revenue</b>						
	Households	Business	Total			
Contribution Margin	29,330.00	31,120.00	60,450.00			
Contribution Margin Ratio	0.92	0.97	0.94			
Break-Even revenue	11,413.77	10,763.97	22,158.49			

## 4. Revenue Advanced Business Model

Business medium		For Prognosis average business size was taken		
Unit Sales Business Averag.	Conservative Szenario	Realistic Szenario	Optimistic Szenario	
in Year 1	68.00	70.00	73.00	
in Year 2	71.00	75.00	77.00	
in Year 3	74.00	80.00	89.00	
Industrial grease trap waste co	Conservative Szenario	Realistic Szenario	Optimistic Szenario	
in Year 1	32.80	34.40	37.40	
in Year 2	35.50	39.20	44.80	
in Year 3	38.30	43.80	52.20	
Revenue per year	Waste Pick - Up			
	Conservative Szenario	Realistic Szenario	Optimistic Szenario	
in Year 1	408,000.00	420,000.00	438,000.00	
in Year 2	426,000.00	450,000.00	486,000.00	
in Year 3	444,000.00	480,000.00	534,000.00	
Revenue per year	Industrial grease trap waste composting			
	Conservative Szenario (sta)	Realistic Szenario	Optimistic Szenario	
in Year 1	13,776.00	14,532.00	15,708.00	
in Year 2	14,910.00	16,464.00	18,816.00	
in Year 3	16,086.00	18,396.00	21,924.00	

Revenue in Total				
	Conservative Szenario (sta)	Realistic Szenario	Optimistic Szenario	
in Year 1	421,776.00	434,532.00	453,708.00	
in Year 2	440,910.00	466,464.00	504,816.00	
in Year 3	460,086.00	498,396.00	555,924.00	

### 2. Cost Structure

Refer to Cost Structure Current Business Model

Variable Costs per Year	
Waste composting Businesses	780.00
Industrial grease trap waste cor	150.00
<b>Variable Costen Business Total</b>	<b>930.00</b>

Additional	Nonvariable Costs Year 1	
B2B Wesbite	100.00	
Door Sign	400.00	
<b>Total</b>	<b>500.00</b>	

## Project Net Cash Flow

Conservative Scenario	Year 1	Year 2	Year 3
<b>Income Tax</b>			
Cash Inflows for tax calculation	421,776.00	440,910.00	460,086.00
Cash Outflows for tax calculation	58,460.00	59,760.00	62,550.00
<b>Tax Base</b>	<b>363,316.00</b>	<b>381,150.00</b>	<b>397,536.00</b>
<b>Tax</b>	<b>65,396.88</b>	<b>68,607.00</b>	<b>71,556.48</b>
<b>Project's cash flows</b>			
Cash inflows Sales	421,776.00	440,910.00	460,086.00
Cash outflows Variable Costs	930.00	930.00	930.00
Nonvariable Costs	10,451.63	10,451.63	10,451.63
Income tax	65,396.88	68,607.00	71,556.48
<b>Project's net cash flows</b>	<b>344,997.49</b>	<b>360,921.37</b>	<b>377,147.89</b>

Realistic Scenario	Year 1	Year 2	Year 3
<b>Income Tax</b>			
Cash Inflows for tax calculation	434,532.00	466,464.00	498,396.00
Cash Outflows for tax calculation	60,260.00	64,380.00	68,970.00
<b>Tax Base</b>	<b>374,272.00</b>	<b>402,084.00</b>	<b>429,426.00</b>
<b>Tax</b>	<b>67,368.96</b>	<b>72,375.12</b>	<b>77,296.68</b>
<b>Project's cash flows</b>			
Cash inflows Sales	434,532.00	466,464.00	498,396.00
Cash outflows Variable Costs	930.00	930.00	930.00
Nonvariable Costs	10,451.63	10,451.63	10,451.63
Income tax	67,368.96	72,375.12	77,296.68
<b>Project's net cash flows</b>	<b>355,781.41</b>	<b>382,707.25</b>	<b>409,717.69</b>

Optimistic Scenario	Year 1	Year 2	Year 3
<b>Income Tax</b>			
Cash Inflows for tax calculation	453,708.00	504,816.00	555,924.00
Cash Outflows for tax calculation	63,050.00	62,550.00	77,250.00
<b>Tax Base</b>	<b>390,658.00</b>	<b>442,266.00</b>	<b>478,674.00</b>
<b>Tax</b>	<b>70,318.44</b>	<b>79,607.88</b>	<b>86,161.32</b>
<b>Project's cash flows</b>			
Cash inflows Sales	453,708.00	504,816.00	555,924.00
Cash outflows Variable Costs	930.00	930.00	930.00
Nonvariable Costs	10,451.63	10,451.63	10,451.63
Income tax	70,318.44	79,607.88	86,161.32
<b>Project's net cash flows</b>	<b>0.00</b>	<b>372,007.93</b>	<b>413,826.49</b>

## APPENDIX X

### Assumption for Variable Costs

<p>Households (small and large): International studies on door-to-door waste collection in urban contexts estimate average variable costs of USD 1–3 per household per month, depending on route length, fuel prices, and container usage (Hornweg &amp; Bhada-Tata 2012, World Bank What a Waste). For the Peruvian context, where fuel prices are moderate, USD 1.50 per small household and USD 2.00 per large household were assumed.</p>	<p>Small Households: 1.50 USD</p> <p>Big Households: 2 USD</p>
<p>Small and large businesses: Commercial clients generate higher volumes of organic waste and require larger bins, which significantly increases collection costs. Reports from Latin America place these costs between USD 5–25 per business per month (UNEP 2018, Waste Management Outlook for Latin America and the Caribbean). Accordingly, USD 7.00 was assumed for small businesses and USD 20.00 for large businesses.</p>	<p>Small Businesses: 7 USD</p> <p>Big Businesses: 20 USD</p>
<p>Pet composting: This service requires specialized biodegradable materials and more careful handling. Based on case studies of animal by-product composting, a higher value of USD 30.00 per customer per month was assumed (FAO 2018, Composting Animal By-products).</p>	<p>Pet Composting: 30 USD</p>
<p>Dog poop pickup: This service involves frequent collection and the provision of compostable bags. Local market prices for biodegradable dog waste bags (USD 0.05–0.08 per unit) and the manpower needed to pick it up suggest an estimated monthly cost of USD 3.00 per customer.</p>	<p>Dog Poop Pickup: 3 USD</p>
<p>Industrial oil pick-up: The transport and treatment of used cooking oil incur additional disposal costs. International sources report costs of USD 5–15 per ton in developing economies (OECD 2019, Biodiesel from Used Cooking Oil). Here, a value of USD 5.00 per ton was applied.</p>	<p>Industrial Oil Pick-Up: 5 USD</p>
<p>Clay pods: For this product, material and packaging costs are the main drivers. Based on local clay product prices, a cost of USD 10.00 per pod was estimated.</p>	<p>Clay Pods: 10 USD</p>