



## SUSTAINABILITY IN SIGNATURE CUISINE: EMERGING PRACTICES AND TRENDS IN PERUVIAN RESTAURANTS

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**Abstract:** This study explores how Peruvian signature cuisine restaurants integrate sustainability into their culinary practices, a topic of growing relevance in the contemporary gastronomic industry. Faced with current environmental and social challenges, gastronomy is conceived not only as a cultural expression but also as a space for ethical and ecological responsibility. In this context, this paper was aimed to analyze how sustainable culinary practices are managed in Peruvian signature cuisine restaurants. To this end, the study used a phenomenological qualitative research design involving twelve in-depth interviews with chefs from signature cuisine restaurants, which were then complemented by observation. Data triangulation and coding techniques were applied for subsequent data analysis. The findings showed that chefs conceive sustainability as an ethical value inherent to their profession, beyond a mere commercial strategy. However, their practices are implemented intuitively or empirically, without relying on formal conceptual frameworks of sustainability, which results in a lack of integration of their social, economic, and cultural dimensions. The study confirms a growing trend toward incorporating sustainable practices into Peruvian haute cuisine, driven primarily by environmental awareness among chefs. However, this sustainability remains partial: it focuses on reducing waste and using natural resources responsibly, but it omits equally important dimensions. Moving toward sustainable gastronomy requires not only ethical intent, but also training, institutional policies, and collaborative networks that integrate social, economic, and cultural pillars of sustainability. This finding prompts us to rethink haute cuisine both as an art and as a transformative agent in current food systems.

**Keywords:** sustainability, signature cuisine, gastronomy, culinary practices, circular economy

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### INTRODUCTION

The food and beverage industry, along with its supply chain, plays a crucial role in environmental impact. As a result, in 2015 the United Nations decided to focus one of its Sustainable Development Goals (SDG) on combating one of the most pressing problems in the industry: food waste (UN, 2019). Therefore, SDG 12 encourages responsible consumption and production, and it is aimed to minimize food wastage along production and supply chains by 2030.

According to the Global Roadmap for Food Waste Reduction of the World Tourism Organization (2023), the food industry is one of the main sources of environmental pollution and biodiversity degradation, and reports reveal that agriculture poses a threat to 86% of endangered species. Agents in the food service sector are a fundamental part of tourism activities. They should adopt sustainable practices that help reduce their environmental impact, benefit them economically and ensure healthy growth in line with market trends. By 2022, approximately 49% of the Peruvian population was experiencing food insecurity. Before the pandemic, this percentage was approximately 25% (FAO, 2022). In Peru, nearly thirteen million tons of food are wasted annually, representing 47.6% of the country's total production (MIDIS, 2023). A large portion of food waste in Peru also occurs during the final consumption stage: cereals account for 43%, fruits and vegetables 35%, and tubers 12% (Bedoya & Dal' Magro, 2021).

Within this context, the rise of Peruvian gastronomy has taken on a significant role. This has led to the use of biodegradable containers, the elimination of disposable plastics, the proper management of solid waste by correctly separating organic, inorganic, and recyclable materials, and even the installation of a water purification plant in a renowned restaurant in the capital (MINAM, 2018). With the emergence of the sustainability trend, these sustainable practices have gained momentum and evolved into new approaches such as reusing food scraps, purchasing from local suppliers, sourcing ingredients locally, switching to a circular economy, among others (Sutiadiningsih et al., 2024). Therefore, this research seeks to provide deeper insights into the sustainable methodologies used by the gastronomic stakeholders studied, as well as how these culinary practices are implemented within the context of Lima's emerging haute cuisine scene. This study also poses the following questions: How are sustainable culinary practices managed in Peruvian restaurants specializing in signature cuisine? How are they manifested within the intrinsic factors of the dish, place and location?

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## LITERATURE REVIEW

The drivers and barriers within a food and beverage company for the proper design of sustainable strategies are identified in the study by Adams et al. (2022). Similarly, Ozbasar et al. (2024) assume that creativity and innovation in the menu play an important role in gastronomic innovation and design menus that adapt to different eating styles. In contrast, Amicarelli et al. (2022) demonstrated that there are three critical control points for reducing food waste: verifying diner attendance, communicating with local suppliers, and purchasing perishable ingredients. Furthermore, the research by Filimonau et al. (2023) indicates that it is essential to foster culinary innovation and creativity in the training of agents in the gastronomic industry and to promote the development of sustainable practices that reduce food waste. On the other hand, Batat (2020) determines that there are both intrinsic and extrinsic factors that help promote sustainable practices in the luxury gastronomic industry, where the intrinsic factors are the dish itself, the pleasure it provides, and the location.

Additionally, Pasco-Dalla-Porta et al. (2018) and their 2021 study demonstrated that the pursuit of innovation has led to some progress in the gastronomic industry. However, it is not a characteristic that many establishments implement in their operations due to economic barriers, lack of training, government support, and the promotion of creativity, innovation, and a proactive vision among chefs. In turn, Cántaro et al. (2023) point out that implementing this type of innovation is slow in the Peruvian market due to initial investment, in addition to strategic, and regulatory factors that hinder the scalability of the sustainability model in this industry. Likewise, Vásquez et al. (2025) proposed a model of mutual collaboration where technology is part of traditional agricultural practices and contributes to food security and sustainability.

### Culinary Practices

For centuries, culinary practice has been conceptualized as the production of dishes for consumption, based on empirical knowledge. However, this work has evolved into a scientific field that fosters innovation and technology to adapt to emerging consumption patterns (Gutiérrez, 1998; Medina, 2025). Culinary practices are comprised of cultural characteristics, mostly inherited from generation to generation, which allow them to endure over the years and even become traditions. These practices are linked to the consumption and production habits of a society (Iborra et al., 2010).

### Sustainability

According to the report entitled *Our Common Future*, published by the UN (1987), the main idea of sustainability refers to lasting development, that is, meeting current needs without compromising future needs and highlighting the importance of intergenerational balance. Sustainability seeks to create equitable economic growth globally, establishing a productive system together with the preservation of environmental resources (Guillen et al., 2025). Likewise, sustainability development is also interpreted as one of humanity's main objectives, seeking to implement technological and social measures for the preservation of resources to meet our present and future needs (Aguado, 2018).

### Sustainable Food Experiences

According to Batat (2020), the main objective of sustainable luxury culinary offerings is to meet diners' tangible and intangible requirements. These requirements have been broken down into intrinsic and extrinsic factors as motivational tools for implementing sustainable and ethical practices that go beyond environmental stewardship, including the creation of pleasurable experiences. For the purposes of this research, the main dimensions to be analyzed are the intrinsic factors of dish, place, and location. First, the dish focuses on the final product offered by chefs and its constituent components. Adapting to new market trends is essential to provide a high-level culinary experience. Reaffirming the use of culinary techniques that enhance the authentic flavor of food, incorporating seasonal ingredients, and promoting healthy eating are just some of the foundations for menu design by emerging chefs (Batat, 2020).

These characteristics are combined with the growing trend among food service operators to adopt best practices and responsible habits in their work, thus joining the fight against food waste (Camilleri, 2021). This dimension also focuses on the origin of ingredients. Purchasing local food has a positive impact, boosts the local circular economy, helps preserve traditions, and fosters culinary tourism. In turn, restaurants gain access to higher-quality, healthier, and more sustainable ingredients in the long term (Huang et al., 2024). This is how this pillar focuses on the blend of quality ingredients, the menu design, the way it is prepared, and how it is reflected in its surroundings, which ultimately results in the dish served to the diner. A high-level gastronomic experience is not only centered on the quality of the dish ingredients. The act of eating is an essential source of pleasure that we experience throughout life.

Even from early childhood, food awakens sensory activity that ultimately determines consumption habits in adulthood (Nicklaus, 2016). The pleasurable memory of a gastronomic experience is defined by the value of food and important factors such as the dish composition, creativity, design, and the message it conveys. This generates a long-term memory for the diner (Muñoz et al., 2018). The experiential pleasure derived from food is interpreted as the sensory and emotional value experienced through a culinary experience. Hospitality businesses seeking to implement this pleasurable experience will develop customer satisfaction and loyalty (Batat et al., 2019). Likewise, for chefs offering a luxury culinary proposition, it is important to evoke pleasurable and vivid feelings within the framework of their sustainable and healthy gastronomy, thereby promoting better consumption habits among their customers (Batat, 2020).

A high-level culinary experience is also shaped by the place where it is offered. Chefs strive for their dining rooms to reflect the same vision they convey through food. This is evident in the design of their restaurants as they seek to maximize functionality, enhance beauty, and be environmentally friendly, while maintaining an elegant and contemporary approach, with technology and innovation as key allies (Batat, 2020; Bütün & Öncel, 2025). The place is

also defined as the establishment where the kitchen team interacts with diners, generally in separate environments but within the same structure. There is a growing trend towards integrating these spaces to create a new experience and connection with customers (Ziari & Mosleh, 2025). Many restaurants plan their kitchen layout based on the area needed for the dining room, which often results in limited space for certain operations. However, designing an efficient waste collection system also has a significant impact on the establishment's sustainable, economic, and social image, which is why implementing this system should be part of the initial planning (Vinck, 2019).

The overall objective of this research was to analyze how sustainable culinary practices are managed in signature cuisine restaurants in Lima, Peru, through the subcategories of dish, pleasure, and place.

## MATERIALS AND METHODS

A qualitative approach was employed in this study. According to Hennick et al. (2022), this type of research focuses on the natural observation of events, seeking to investigate social behaviors, how individuals react to their environment, and what they feel and think. Its function is to generate new theories based on data collected from human relationships. Consequently, this was a descriptive analysis that focused on the specific and detailed collection and analysis of data to establish an understanding by describing the study of events without extensive theorizing (Ghorbani & Matourypour, 2020). This type of study allows for the investigation of specific groups of people and actions to subsequently evaluate their behavior in relation to the proposed variables. Likewise, the study used a phenomenological design. Creswell & Creswell (2017) argue that this design seeks to gather detailed information on the diverse experiences of its research agents in specific situations and to find meaning in them through the analytical process. It aims to study a common population that has shared the same experience, thus uncovering a narrative. This design begins by identifying the situation, proceeds with collecting the necessary data, and concludes with an interpretation of the shared experiences.

Furthermore, non-probability convenience sampling was used. Ahmed (2024) states that this method's advantage is that it provides greater freedom when choosing the individuals who will participate in the research. The interviewer can define their sample according to what is convenient and accessible, with characteristics that enable to pursue their objectives. He adds that it does not require a large financial investment, and it is a faster procedure. Therefore, this study included 12 participants (Table 1). Inclusion criteria were as follows: participants must have technical or university studies, more than five years of experience in the food service industry, at least two years of experience in management positions, knowledge of signature cuisine, and a demonstrated commitment to sustainability in their operations. Exclusion criteria were as follows: individuals who do not hold management positions in restaurants, staff trained in sustainable practices, chefs who do not practice signature cuisine, and staff from cafes and startups.

Table 1. Study participants

Participant	Occupation	Mode
E1 (man)	Executive Chef	In-person
E2 (man)	Cuisine chef	In-person
E3 (man)	Executive Chef	In-person
E4 (woman)	Cuisine chef	Phone call
E5 (man)	Executive Chef	In-person
E6 (man)	Executive Chef	Phone call
E7 (man)	Cuisine chef	In-person
E8 (woman)	Cuisine chef	In-person
E9 (woman)	Executive Chef	In-person
E10 (man)	Cuisine chef	Phone call
E11 (man)	Cuisine chef	Phone call
E12 (man)	Cuisine chef	In-person

This research employed interview techniques. Knott et al. (2022) define an interview as a conversation where valuable information for research is gathered through human interaction, involving the asking and answering of questions. An interview guide with 16 questions was designed accordingly. Observation was also chosen as a method.

Jamshed (2014) points out that it is a complementary qualitative research method that focuses on gathering useful information to compare with previously obtained data. It is related to ethnography, and it is useful for various study contexts. In addition, content validity was established through an expert panel.

According to Creswell & Creswell (2017), the validity and reliability of an instrument must be supported by various factors, including agents external to the project who can impartially evaluate the methods and obtained results. Furthermore, the confirmability criterion was adopted as a strategy where all procedures must be correctly implemented and documented under rigorous research standards, safeguarding results accuracy (Lim, 2025).

To implement our data collection techniques, we contacted the restaurants' administrative departments by email to explain them about the project and request their authorization for the research. Subsequently, we conducted an initial round of visits to explain the project in detail to the chefs and proceed with the interviews and observation process. Finally, the information provided by interviewees was manually transcribed and coded using the ATLAS.ti 23 qualitative analysis software in a way that was convenient for organizing into categories, making it accessible and understandable for accurate recording (Figure 1). Triangulation was then performed to analyze and understand the collected information in depth and to reduce information bias (Carter, 2014).

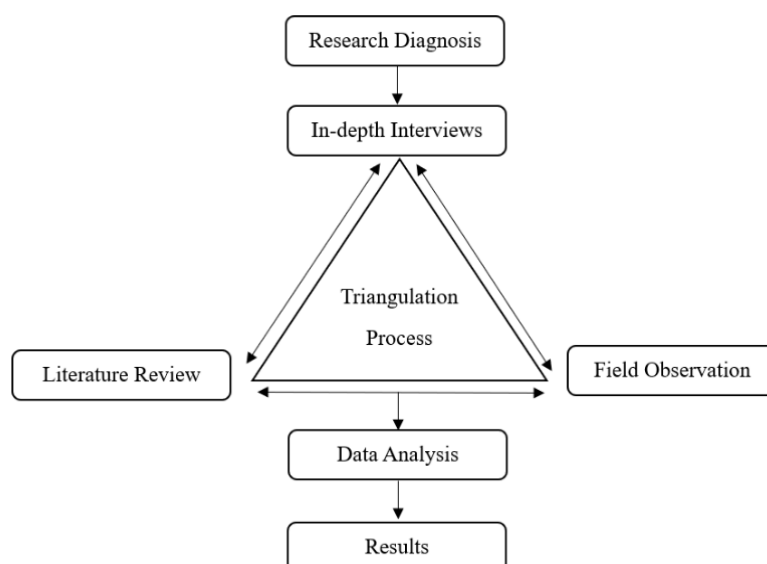


Figure 1. Qualitative Analysis Process

## RESULTS AND DISCUSSION

According to the observation process carried out in the research, one of the analyzed restaurants demonstrates a commitment to sustainability in various areas. Starting with the use of local products and their traceability, primarily for seafood, they work closely with a responsible fishing supplier who ensures that operation is supplied with fresh, artisanal fish of appropriate sizes. These characteristics align with the seasonality of products, which, along with freshness, are key factors to meet quality standards and optimal organoleptic characteristics for a high-end cuisine. This applies to all types of products, such as vegetables, fruits, fish, etc.

Additionally, the restaurant is designed to transport its diners, especially tourists, to the Peruvian Amazon through its decor and art that aim to convey the culture of the Pacaya Samiria National Reserve. This, together with the previously mentioned emphasis on sourcing ingredients and consuming local produce, creates an atmosphere of awareness and curiosity about Peruvian culture. This is a competitive advantage held by very few restaurants in the area, as it entails a higher investment in purchasing handcrafted furniture, providing ongoing care for local vegetation, and training the service staff to effectively communicate the history offered in the dining room.

On the other hand, focusing primarily on its kitchen staff, it is observed that most members are between 35 and 50 years old, with considerable experience in the industry. Many of them have joined the restaurant since it opened approximately six years ago. This is reflected in their processes, their use of culinary techniques for cutting, cooking, and portioning, as well as the optimization of efficient storage, resulting in a solid and organized team. Finally, their commitment is evident in their efforts to eliminate single-use plastics. It is common to see restaurants offering beverages like water and sodas in returnable bottles, always having the customer in mind. However, this establishment seeks to reduce the use of these plastics within its operations. Their sauces are not stored in small vacuum-sealed bags, but rather in reusable plastic containers, using only cling film and vacuum-sealed bags for packaging large quantities that are essential to the restaurant's operation. Furthermore, all their plumbing systems are equipped with water aerators to conserve water, and their cleaning products are designed to be efficient and to avoid contaminating water sources after use (Table 2).

Table 2. Observation Sheet of the Third Interviewee's Restaurant

N°	Sustainable Culinary Practices	Observation
<b>Plate</b>		
1	Inclusion of dishes made with local ingredients in their menu.	Yes. Their menu features local products, including fish, seafood, tubers, and spices. However, they also use several Spanish products.
2	Use of culinary techniques efficiently in their operations.	Yes. Their team has years of experience which proves they know their technique. This goes hand in hand with their low staff turnover.
3	Availability of vegetarian, vegan, and gluten-free options in their menu.	Yes. Being a restaurant frequented by many tourists, they have especially incorporated vegetarian dishes, such as organic tomato carpaccio. They also offer the option of making them vegan by using plant-based milk, upon customer request.
<b>Pleasure</b>		
4	Intention to transmit local culture through the product and the service.	Yes. They primarily aim to highlight seafood, their commitment to sustainable fishing, and the biodiversity of the Peruvian sea. Their staff is trained to provide information on product traceability.
5	Encouragement of a balanced diet in the menu distribution.	Yes. They aim to make balanced dishes with low fat and spices so that they are appealing to foreign customers.
6	Diners' enjoyment of their experience at the establishment.	Yes. Many of them enjoy the restaurant's food, especially when they hold their monthly wine pairing event.

Place		
7	Sustainable design of the premises.	Yes. The premises have plenty of natural light through large windows. There are several plants that complement the local Amazonian nature reserve theme.
8	Installation of energy and water saving systems by the establishment.	Yes. They work with a company that provides them with renewable energy through solar panels and hydroelectric power. Likewise, their plumbing is water-efficient thanks to the use of aerators, and their lights are activated by a motion sensor.
9	Availability of an area designated for waste segregation that is used efficiently.	Yes. Inside the kitchen, each station has bins for separating waste. In the basement, they have a storage area where they separate general waste.
10	Use of single-use plastics in their operations.	No. They do not use plastic bottles in any of their operations or for customers. There are no plastic bags, and they only vacuum pack large quantities of products.
11	Use of eco-friendly cleaning products.	Yes. They use sustainable cleaning products that do not pollute water sources.

**Plate Subcategory**

In the Dish subcategory analysis, which specifically addresses the culinary offerings of the restaurant, identified comments demonstrate a clear alignment with the contemporary trend toward sustainability. This orientation is not merely a marketing strategy but it reflects a profound transformation in current culinary philosophy, influenced by the principles taught in the most advanced culinary schools. Young chefs incorporate concepts such as valuing local and seasonal products, reducing food waste, respecting natural cycles, and ensuring ingredient traceability from their earliest training (Figure 2). These values, internalized during their education, translate into concrete practices that are now an integral part of their daily professional operations, thus redefining both the menu and the relationship among the kitchen, the environment, and social responsibility (Table 3).

Table 3. Analysis & Triangulation

Analysis & Triangulation	Participant	Exemplary Quotes
One of the most widely used sustainable practices in restaurants is the utilization of ingredients by using scraps in a base dish. This is one of the easiest techniques to implement, as it requires little effort or additional knowledge beyond preparing a basic stock or basic cuts of meat.	(E9)	“For example, when we chop an onion, we can use the layers of the onion for a salsa or a sliced onion, and we save the hearts for a stock or some base preparation or dressings for family meals.”
The purchase of local ingredients has become increasingly popular in haute cuisine restaurants. Beyond often featuring exotic products that result in innovative dishes, local ingredients offer higher quality raw materials. Restaurants gain access to seasonal produce and, above all, a freshness unattainable with imported products.	(E6)	“Well, that will depend a lot on freshness. Ideally, purchases of local supplies or products are usually made for the sake of freshness.”
The growing popularity of sustainability has led consumers to increasingly choose restaurants that implement and effectively communicate these practices. As a result, many restaurants in the area are incorporating sustainability into their operations to the best of their ability, seeking to remain competitive in this industry.	(E11)	“...many of their diners are already looking to find out, or rather are more committed to the issue of sustainability, and they want to know whether seasonal products are used, whether it is local product because it reduces the carbon footprint, whether the restaurant is really efficient, whether they recycle or not, because I also think that reflects order and a good atmosphere within the premises.”

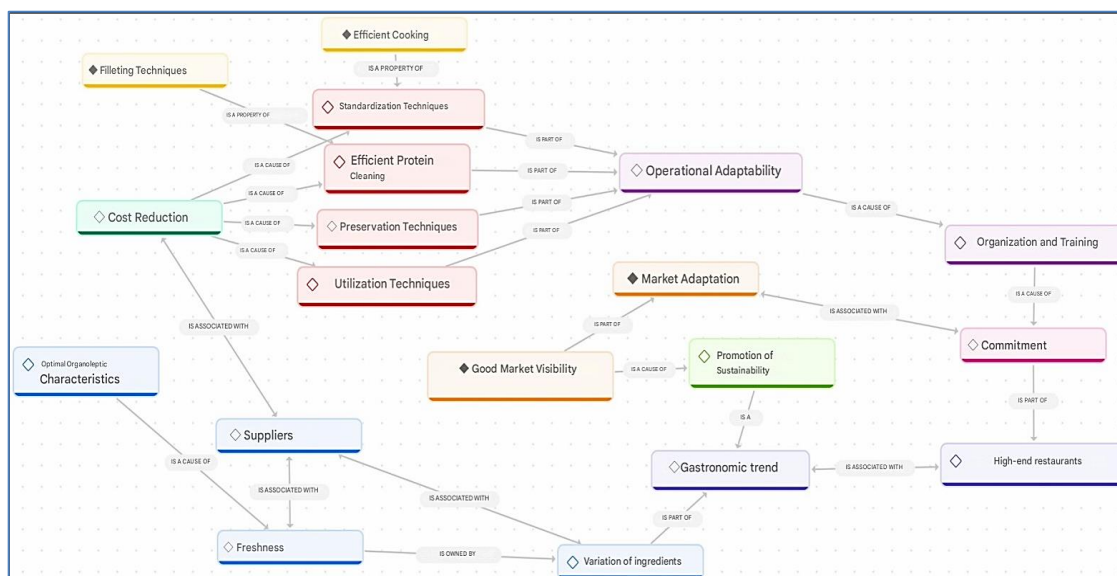


Figure 2. Semantic Network

### Pleasure Subcategory

Regarding the Pleasure subcategory, questions were designed to explore the overall experience offered by the establishment to their diners. They particularly focus on how sustainability principles are integrated and manifested in that experience, as well as their impact on both the diner's perception and evaluation. The initial approach stemmed from a more sensory and emotional dimension: it explored the dish capacity to evoke sensations, memories, or affective connections, as well as the organoleptic stimuli, at a visual, olfactory, gustatory, and tactile level, which are deliberately sought by chefs when conceiving their creations. This perspective allows us to understand not only how sustainability influences the selection of ingredients or culinary techniques, but also how it translates into a pleasurable, coherent, and meaningful experience for diners, thus reinforcing the link between environmental responsibility and gastronomic enjoyment (Table 4).

Table 4. Analysis &amp; Triangulation

Analysis & Triangulation	Participant	Exemplary Quotes
Restaurants are opting to create sensory experiences through more avant-garde cuisine, implementing culinary techniques such as spherification, gels, airs, foams, and others. The aim is to impress diners with textures, shapes, and creative combinations, thus creating a sensory experience more focused on the customer's organoleptic stimulation.	(E9)	"Well, among the dishes I offer in my restaurant, we use quite a bit of faux caviar or, for example, techniques for making airs or foams. We use a siphon or an aerator, or an aerator and soy lecithin. With these techniques we can create new textures."
Consumer trends are driving restaurant menus to adapt, especially when a significant portion of their clientele are international tourists. Furthermore, when offering a tasting menu, it is crucial to maintain a balance between the various dishes to avoid overwhelming the customer.	(E3)	"It's a global trend. This is also what we want to offer the public: healthy, digestible food. Keep in mind that I have many international clients."
Effective communication of sustainable practices implemented by establishments should be integrated into the overall experience narrative to raise awareness, encourage reflection, and enrich the experience. Knowing how to convey this information effectively is crucial so that all the work behind is not in vain, as it can be used as a powerful advertising tool for the establishment, creating an atmosphere of emotional satisfaction.	(E8)	"In this case, the types of satisfaction that have been mentioned are mainly related to feeling good, the personal satisfaction more than anything, the fact of supporting those small places, those small companies and businesses that are looking for a more sustainable approach."
The popular view of sustainability as solely an environmental concept is expanding within industry to include the circular economy and the local production chain. There is a growing emphasis on valuing the work of artisans, farmers, and other primary producers. Consequently, many businesses are choosing to prioritize purchasing local supplies and products of all kinds.	(E1)	"...we should see sustainability not only as not wasting natural resources, but also as a further economic benefit within society, and finally as an expansion of our culture."

### Place Subcategory

The implementation of sustainable practices is closely linked to the establishment's physical infrastructure. In this sense, the "place" subcategory plays a fundamental role because it allows for a concrete understanding and observation of internal processes related to sustainability. This dimension encompasses key spaces such as the dining room, kitchen, production areas, and waste segregation and management points, assessing whether they have been designed or adapted according to ecological design principles, for example, through the efficient use of resources, sustainable materials, low-energy lighting and climate control systems, or infrastructure that facilitates recycling and composting.

It should be noted that many of the analyzed restaurants operate in rented premises whose original structure was not planned with sustainability criteria in mind. However, these establishments have demonstrated a remarkable capacity for innovation and adaptation. They incorporate partial or modular solutions that allow them to align with their environmental values within the limitations imposed by the physical space and contractual conditions (Table 5).

Table 5. Analysis &amp; Triangulation

Analysis & Triangulation	Participant	Exemplary Quotes
One of the most common design principles in these establishments is the use of natural light as a source of energy and cost savings. Many restaurants seek to install large windows that allow for good lighting, which in turn creates a feeling of spaciousness in the dining room. Others opt for terraces that also provide natural ventilation.	(E7)	"...we have a thick, transparent acrylic rooftop dome that captures natural outdoor light."
Purchasing locally sourced furniture is advantageous when planning the store layout. These can be custom-made products to suit the store's style and preferences. This can improve the overall functionality of operations.	(E11)	"This purchase decision was made because the product handled by these artisans is good. It can be made according to the size we require and to the space we have."

The purchase and installation of high-end cooking equipment, such as convection ovens, promotes resource savings through efficient cooking. These are high-cost pieces of equipment, but they generate better productivity, final quality, and contribute to sustainability.	(E5)	“...there are some equipment in the basement that, for example, generate stronger water pressure while using fewer cubic liters of water. For example, convection ovens can cook faster, thus consuming less energy, less gas, less electricity, etc.”
Hiring external companies to manage waste is beneficial for streamlining daily operations, although it does require an additional investment. Today, many restaurants already contract these services as part of their commitment to sustainability.	(E3)	“...we have a sustainability area, and they work closely with other companies, like Simba. Simba is a company that collects organic, inorganic, and recyclable waste.”

In accordance with the overall objective, it was found that there is a marked trend towards sustainability in these gastronomic establishments. These businesses apply certain sustainable culinary practices, according to their circumstances, budget, and type of service. The main practices involve the use of good culinary techniques, the purchase of local products, and cultural revitalization. The study by Adams et al. (2022) identifies the motivations and barriers to the implementation of culinary practices in the gastronomic sector. Cost optimization was identified as one of the most significant barriers, but also a factor that allows for savings in energy, water, and gas expenses.

This result aligns with the research conducted because gastronomic establishments invest in purchasing professional kitchen equipment that optimizes the consumption of resources, which is high for this type of business.

Likewise, the article by Filimonau et al. (2023) highlights the role of chefs in reducing food waste in their kitchens, with interviewees pointing to economic, environmental, and moral benefits that motivate them to prevent food waste in their establishments. These responses align with those obtained at the study site of this research, where chefs indicated they make efforts to reduce waste by respecting local ingredients and the national ecosystem. They also highlighted the importance of using good culinary techniques to decrease their input costs through food waste reduction.

Therefore, the obtained results are related to Batat's (2020) theory on intrinsic factors as a pillar of gastronomic sustainability. The analyzed restaurants seek to apply and communicate their sustainable practices in the product they offer, both in relation to its components and concept. In terms of their service, they aim to add emotional value to the experience through a compelling narrative of the sustainable concept and support for local communities. Additionally, they adapt their infrastructure with local and sustainable materials without compromising the sophisticated essence of the service they provide.

Based on the first objective, the interviewees point out that the purchase of local supplies is a determining factor to keep the freshness of their dishes. Local consumption benefits the diner with a better final product and supports the local production chain, as indicated in the results of the study by Amicarelli et al. (2022). This study allowed for reducing food waste and increasing the economic benefit for the restaurant owner and their local suppliers. Moreover, an adequate rotation of fresh and seasonal products was generated, and the quality of dishes in the restaurant was improved.

On the other hand, the article by Pasco-Dalla-Porta et al. (2021) discusses new culinary alternatives in the national gastronomy sector, ranging from the use of regional and indigenous ingredients in restaurant menus to the revival of traditional recipes, which today is achieved through a modern reinterpretation focused on a foreign audience. This assertion is reaffirmed by the interviewed chefs, who use local products in their dishes as a source of inspiration for their gastronomic offerings. The results align with Batat's theory (2020) on the use of these natural ingredients as a source for creating a more refined gastronomy focused on natural products.

Regarding the second specific objective of creating pleasure based on sustainable culinary techniques, Adams et al. (2022) present sustainability as a competitive advantage in terms of a business' reputation. They state that the public increasingly demands the implementation of sustainable practices in their social, economic, and environmental dimensions. This fact relates to the interviewees' responses and the research by Batat et al. (2019) on creating pleasure for diners and the narrative behind it. Many diners are interested in product traceability and suppliers, and artisanal products are perceived as more exclusive and morally sound when they support a local community.

On the other hand, the interviewed chefs indicated that their menus are not focused on promoting healthy eating, but they do strive to ensure their dishes are balanced in proportions, quantities, and flavors. This somewhat contradicts Batat's theory (2020), which states that chefs are adapting to the trend of healthy eating and dietary menus in their upscale creations—a highly prevalent reality in Europe, but still a niche market in Peru.

Regarding the third specific objective concerning the importance of restaurant design, the study by Pasco-Dalla-Porta et al. (2018) indicates that restaurants are more efficiently using reusable glass containers and biodegradable disposables due to their ease of use. This trend is also being applied by restaurants involved in the present study.

They no longer offer carbonated beverages in plastic bottles, they use cardboard or reusable bags for delivery packaging, and their containers are biodegradable. This finding is also related to the study by Cántaro et al. (2023) on the role that sustainable technological innovation plays in the process of implementing products with cleaner substances, such as cleaning chemicals in the case of food industry. Finally, the infrastructure and interior design of a food service establishment play a crucial role in providing a sustainable experience for diners, as indicated in Batat's theory (2020), which is related to the results obtained in this research. Most restaurants seek to implement dining rooms with large windows as sources of natural light and ventilation and use local furniture as part of their restaurants' aesthetic. This research was limited by the lack of national background information specifically on restaurants in this sector.

Additionally, contacting and securing time to conduct interviews with chefs was a limitation due to their high workload. Finally, there were time and accessibility limitations that hindered the development of the observation process.

Regarding the theoretical and practical implications, considering Batat's theory (2020) on the pillars of sustainability in the food service sector, specifically the intrinsic factors used as subcategories in this research, allowed for a focused methodology for applying sustainable practices in restaurants in the most touristic district in Lima. This way, businesses in this sector can find a source of motivation to adapt the analyzed practices to the reality of their operations, considering that they also represent an economic benefit and a competitive advantage in line with new trends.

## CONCLUSIONS

There is a trend toward the implementation of sustainable culinary practices in signature restaurants. These restaurants manage these practices according to their operational reality and budget. Mostly, basic actions are implemented, such as waste segregation, utilization of scraps, and purchase of local ingredients, as these are the most accessible options. Finally, it is concluded that these restaurants have not yet explored the possibility of innovating in sustainability within their operations.

For the design and creation of analyzed restaurants' menus, the efficient use of ingredients is important. The aim is to minimize food waste by using all components, whether by creating new textures or bases that enrich the final dish. Furthermore, there is a clear trend toward implementing these sustainable practices, especially in this tourist district, as a response to the new demands of consumers, mostly foreigners.

The element of creating pleasure is crucial for building the overall experience. Part of this is manifested through effective communication of sustainable practices implemented by these businesses. However, there is still some lack of awareness about how using local products and promoting national culture contribute to sustainable development. Many chefs do not realize this is a way to contribute to the local economy and value chain, generally associating sustainability solely with environmental protection, while neglecting economic and social factors.

Finally, the sustainable design of establishments is an area that still needs improvement. Many restaurants operate in rented or repurposed spaces, which limits their ability to plan for sustainable infrastructure. However, many of them have managed to adapt with accessible solutions such as installing large windows, implementing waste management systems operated by third-party companies, and using LED lighting and energy-saving equipment. These solutions are considered basic due to their low implementation cost.

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