

# **Department of Business and Management**

# Animal Welfare Practices in Hospitality: The Sovrana Hotel Case Study

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# Abstract

The growing emphasis on animal welfare and the mounting cognisance regarding the implications of their sustenance are precipitating a demand for greater responsibility in the selection of raw materials by hospitality companies.

Among the characteristics that develop impact is the animal welfare generated in farming practices. Despite the existence of food safety legislations containing attentions towards this issue in farming practices, the market demands products with greater animal welfare impacts, creating a challenge for hospitality companies to implement this value within their policy and offer.

The present thesis aims to analyse the policies and managerial practices adopted by hospitality companies with regard to animal welfare, and to study the process of implementation of these practices in company operations. For the study, in addition to the literature review, a mixed (quali-quanti) method approach was adopted in order to ensure a deeper understanding of the behaviours under analysis; in particular, a questionnaire was administered to a sample of consumers and interviews were conducted with companies in the hospitality and agri-food industry. This allowed to provide a comprehensive overview of the context within which policies are developed and to provide the point of view of each actor involved in the supply chain impacted by animal welfare, i.e. the producer, the hospitality company as intermediary and processor, and the consumer.

The results show that policies and managerial practices are consistent among all the companies interviewed, and that the process of creation and implementation in the company is also consistent. The demand for this product category is present, but it remains niche at the moment due to the higher cost compared to the conventional peer offer. In addition, there is a great lack of information on the subject, also dictated by the existence of a multitude of different certifications, which generates confusion among both hospitality companies and consumers, in some cases not even making them aware of the existence of this type of offer.

The study highlights the importance of investing in human capital in companies that want to be active in this value, as the process of policy implementation and the management of managerial practices require a high level of competence, which can be acquired through specialised training or appropriate personnel selection criteria.

Notwithstanding the rigour of the applied method, the study is subject to certain limitations that have been addressed in the dedicated chapter (pp. 129-131).

# **CHAPTER 1 – Introduction**

This study is situated at the intersection of the fields of animal welfare subject and the hospitality and agri-food industries. The application field of animal welfare represents a novelty both in the academy and in the field, creating space for interesting experimental studies centred on the observation of the activities carried out in the field by operators, the context and the analysis of their interactions.

The present study proposes the aforementioned observations, drawing on case study of the company Sovrana Hotel & Re Aqva SPA in Rimini, Italy, which was among the first hospitality companies in the world to self-define as an "Anima Welfare Hotel" and pioneer in its field.

#### 1.1. Research Context

In recent years, care for animals has become increasingly important in the public consciousness, especially following the COVID-19 epidemic. This has led to increasing attention being paid to animal welfare issues, be they companion or farm animals. Regulations over the years have also moved in this direction, adapting legislation from time to time to common feeling.

At the same time, public awareness of the weight and importance that companies have on ethical and environmental impacts in carrying out their activities has increased, leading companies to have to make changes in the way they do business in order to meet both market and regulatory demands. These factors, combined, generate major challenges for the hospitality industry, which has to face several changes in its processes in order to adapt to new market demands; market, which includes attention to the impact generated by food consumption within the required corporate responsibility dossier, among which we also find animal welfare. Therefore, it is currently necessary for companies active in the hospitality industry to include animal welfare within their business strategies.

# 1.2. Aim of the Research

Considering what has been reported in the previous paragraph, this study aims to understand how companies in the hospitality industry are implementing animal welfare in their policies and what managerial practices are adopted to achieve this. The subject of investigation is multidisciplinary, leading to the intervention of different actors in the analysis; moreover, it is new in the business field, making the conduct of the study even more complicated.

The study, therefore, aims:

- to analyse in depth the context within which the hospitality company that decides to implement animal welfare in its policies must move;
- to report the point of view of the different actors that compose it, so as to allow the understanding of the cause-effect relationship of the managerial practices adopted by the hospitality company;
- to codify the policies and managerial practices adopted by the hospitality companies active in this field;
- to study the process of implementation of policies and managerial practices in company activities.

#### 1.3. Methodological Approach

In order to be able to achieve the objectives outlined in the previous paragraph, a comprehensive review of the literature was carried out, researching animal welfare theories and models applied to business context. This was followed by a systematic investigation into the supply chain dynamics within the agri-food and hospitality sectors, which interact in the demand and supply of animal welfare compliant products. This research endeavour was necessary to provide a literature base that would give a holistic view of the context under analysis.

Given the complexity of the study, the mixed (quali-quanti) method approach was selected, which allowed a very broad view of the topic under analysis and provided a comprehensive answer to the research question. The research instruments used were the administration of a questionnaire to a sample of consumers and the carrying out of interviews with a selection of companies active in the animal welfare field from both the hospitality and agri-food industries.

# 1.4. Thesis Structure

This thesis is structured into the following chapters:

- CHAPTER 1: Introduction Presents the study context, research objectives and methodology adopted to answer the research question;
- CHAPTER 2: Literature Review Reports evidence on theories and previous research on animal welfare, the hospitality industry and the agrifood industry;
- CHAPTER 3: Methodology Describes analytically the methodological approach adopted for data collection and analysis;
- CHAPTER 4: Findings Reports the results of the study;
- CHAPTER 5: Findings Analysis and Discussion Analyses the relationships between the findings and existing theories;
- CHAPTER 6: Limitations Highlights the main limitations of the study;
- CHAPTER 7: Conclusions Summarises the findings and suggests future research developments.

# **CHAPTER 2 – Literature Review**

#### 2.1. The Agri-Food Industry

The agri-food industry represents the sector that produces, processes and sells agricultural and livestock products for human consumption, distributed to the consumer through shops, large-scale retail trade or catering activities. Within a country system, this industry is an essential pillar for the state, as it produces goods necessary for the survival of the population.

#### 2.1.1. Agri-food Supply Chain

The agri-food industry is mainly composed of many small and medium-sized companies, generally each specialising in a single activity but with instances of vertically integrated individual companies working together to generate products and added value within a long supply chain. The supply chain represents the network that unites the many different companies that work together to deliver the finished product to the end consumer (Thomé et al., 2021).

The traditional agri-food supply chain model is defined as linear and is composed of a series of consecutive interconnected blocks. Each food genre has its own specific supply chain, as it has specific characteristics that require specific attention at all stages, from production to processing, from transport to the resale system, the latter being fundamental in trying to meet the needs of the target customers.

In the agricultural supply chain, the first block of the chain is represented by the companies involved in working the land. At this stage, primary foodstuffs such as fruit, vegetables, grain, cereals, pulses are produced, which will then feed the subsequent stages of the chain (Rojas-Reyes et al., 2024). It is already at this first point in the supply chain that there is the possibility for companies to sell their produce directly to the end user, creating what is known as the short supply chain, which we will discuss later.

The second block is made up of the companies that process the raw materials into semi-finished products, i.e. items such as flour, cleaned vegetables, etc., products that will then either be put into the distribution channel for sale or will move on to the next block in the chain.

The third block, the last of the production part, is made up of companies that, starting from semi-finished products, generate ready-to-eat finished products, such as bread, pizza, frozen ready meals; also in this case, it will be possible either to sell the products directly to the end consumer, such as the activity carried out by a bakery, or to put the product into the distribution system.

The distribution system is one of the highlights of the chain, as it is responsible for moving goods to reach customers in a capillary manner and at the same time guaranteeing the freshness of the product to consumers. This block in the chain is represented by the wholesale companies that buy goods from the manufacturers and allocate them to the retailers. There is also the possibility that individual or large retailers buy goods directly from the companies, eliminating the passage from the wholesaler. Resale is the last step in the chain, however very important as it is the moment when the customer comes into contact with the product.

Moving on to the animal farming category, the first block is identified in those companies that manage the animal breeding and farming, either for final consumption such as meat or fish, or for the production of animal derivative products, such as milk, eggs, caviar, etc. These companies can either produce the food necessary for animal farming in-house or make use of the productions of the first agricultural block suppliers mentioned above; obviously the internalisation of the feed production process allows greater control over the final quality of the feed, which is useful for the general achievement of animal welfare within the farm.

The second animal farming block consists of both those companies that slaughter the meat and process it, and those companies that process the by-products. Also in this model, it is at this point that companies can create a short food chain by selling derived products such as eggs, milk, cheese and meat directly to the end consumer (Renting et al., 2003). Otherwise, distribution and retail channels follow in the chain as for the

agricultural chain. There is also the possibility that companies will vertically internalise several processes in the chain.

The long supply chain entails certain problems dictated by the large number of steps to which the products are subjected (Gurrala & Hariga, 2022). First is the management of product freshness, which takes a long time to pass from the first block to the consumer's hands (Orjuela-Castro & Adarme-Jaimes, 2018).

Then there is the issue of environmental impact, as moving large quantities of goods at speed and over long distances generates a lot of emissions, as well as huge costs. These costs fall not only on the end consumer, but also on the producer, who will have to reduce the selling price of his product to the various intermediaries in order to maintain a competitive shelf price for the consumer.

A further issue is the possible loss of control that the manufacturer has over the presentation of its product to the consumer; that is, within a retail shop there is the real possibility that the product will not be properly valued by the retailer and will be dispersed among the competing products, whether due to commercial interests or material necessity in view of the large quantity of the same articles for resale.

On these premises, the short food supply chain was born (Jarzębowski et al., 2020). This model, in face-to-face mode, involves the producer himself reselling his product directly to the customer. This leads to higher revenues for the producer on the individual product sold, as he will be able to charge the end user a higher price than he would have received through the distribution channel.

In addition, the company has the opportunity to properly value its product by having direct contact with the customer; this can in time be retained and generate a high customer lifetime value. With regard to environmental impact, this may decrease or increase depending on which of the three short supply chain methods the producer decides to apply (Petruzzelli et al., 2023).

In the face-to-face mode, the customer will go to the manufacturer in person to purchase the goods, or if purchases are delivered by courier it would still be on a local basis at very close distances, thus generating a low impact. The proximity mode involves the company's interaction with local contexts, such as trade fairs, events or direct sales to local retailers. This allows companies, usually small and medium-sized, to make themselves known and appreciated by local customers, perhaps bringing them into direct face-to-face contact. It is interesting to highlight how the creation of local networks allows the generation of small virtuous systems of circular economy from which the whole community benefits. As for the environmental impact, again it remains low.

The extended relations channel, on the other hand, involves the sale of products outside one's own region to customers who may be unaware of the typicality of local production. The products sold through this channel, however, are always identifiable and traceable to the typicality of the production location through information on the label and brands: examples are the export of Parmigiano Reggiano and Champagne. In this case, however, the environmental impact will be higher than the previous two as the distances to be covered are greater.

The short supply chain, in essence, should not only be interpreted on a spatial level, i.e. as a mere reduction of distances between producer and consumer, but as a system that reduces the steps between production and consumption, thus also moving on a temporal level. There are also other alternative models to the traditional linear supply chain that are currently being implemented within the industry.

One of these is the platform-based model (Schroder et al., 2021): this model is based on the use of integrated digital platforms that, through the constant study and analysis of data, allow a precise forecast of demand; this information is shared with the entire supply chain, supporting the manufacturing and related service companies in the development of the precise supply to meet demand; the result is an ultra-efficient management of production activities, drastically reducing waste. Moreover, thanks to the data conveyed in a single platform, it is possible to keep the logistical management of goods under real time control, both in storage activities and in the movement within the network, allowing the reduction of costs and inefficiencies in the movement of goods with an associated reduction of the negative environmental impact caused by emissions during transport. These results are possible thanks to the innovations on which the model is built, namely high digitisation, blockchain and artificial intelligence (Yu et al., 2023; Trabelsi et al., 2023). This system can be applied to both short and linear food supply chain activities in order to significantly implement the sustainability levels of the activities.

Last, but not least, is the circular supply chain model (Perdana et al., 2023). This model, the most innovative and up-to-date, envisages that all waste generated within the chain, from production to processing, from packaging and logistics services to leftovers at the point of sale, is recovered and reused either within the process itself or for collateral activities, such as the creation of recycled packaging, the production of new products or the production of energy. This system makes it possible to eliminate all waste, making it the most sustainable system among those treated, not only from the point of view of impact on the natural and environmental resources used, but also financially; in fact, the recovery and reuse of all waste materials generates a significant reduction in overall costs throughout the supply chain.

#### 2.1.2. Sustainability and Value Creation

As we have seen, the industry is composed of many companies that are all closely interconnected. This generates the need for constant interaction and a common vision that enables development and related value creation. One of the main challenges for companies is the implementation of sustainability within the industry (Lees et al., 2024)

Sustainability is understood as combining the need to satisfy needs today, while at the same time allowing these needs to be met on a continuing basis over time; thus, the basis of sustainability is found in the responsible and fair use of scarce resources of all kinds, aiming at the elimination of waste. Sustainability is a multidimensional concept that in its application is developed on three fundamental pillars, enclosed in the acronym ESG: E for Environment, S for Social and G for Governance.

Companies, in their activities, in order to achieve better levels of sustainability, must generate impact on all three pillars: environmental impact, by reducing the use of natural resources and the production of emissions; social impact, taking into account that in their operations they interact in a social context both internal to the company with its employees and local with the community that hosts it, therefore adopting policies that value social aspects on several levels; governance impact, therefore carrying out the management of the company responsibly and with transparency, integrating ethics in every level of activity, using principles of sustainability in economic and financial management.

It is curious that we have to speak of a challenge when in fact sustainability should be intrinsic to the agri-food industry, since especially the "E" part of ESG (Environmental, Social, and Governance) is necessarily mandatory for the production and survival of the entire supply chain itself. A lot is being invested in companies to implement all ESG principles within their processes.

Interventions take place mainly in the area of resource consumption (Nieto & Thoben, 2022): investments are made both for the installation of systems for the production and use of green energy, photovoltaic or wind power, and for the efficiency in the use of energy itself through less energy-intensive plants and more efficient management of activities, so as to allow a drastic reduction in consumption and related emissions; furthermore, investments are made in irrigation and water resource management systems, in order to minimise waste of the currently scarcest resource, preservation of which will represent the real challenge of the years to come due to the evident climate change.

Other developments within the industry arise from the increasing innovations and technologies of recent years. The implementation of automation and robotics in companies is growing steadily at all stages of production, logistics and distribution processes (Carolan, 2019). Practical examples are the use of drones for sowing and supervising cultivated fields, automated milking systems, automated vineyard harvesting machines, or even intelligent irrigation systems that regulate the water delivered according to the actual need of the soil; in logistics, there are now fully automated warehouses where human intervention is not necessary, except for supervision: robots manage all phases of the logistics process, from the storage of incoming goods to the picking up of packages for dispatch; they enable the efficient execution of all activities without the use of human capital, which is safeguarded both

from physically demanding work and in terms of safety in the workplace, as it is less prone to accidents and injuries.

These types of technological implementations are crucial for the growth of the sector, as they not only bring improvements and reduction of waste but also compensate and will compensate for the growing shortage of labour<sup>1</sup> caused by the constant negative demographic trend in Europe (Larch & Busse, 2024).

In order to be able to maintain the same levels of prosperity and growth, it is necessary that systems be continually studied that allow production activities to be carried out more and more efficiently, thus generating a constant increase in the productivity of each individual work unit. This is only possible, as in any other sector, through innovation, the study and use of new technologies that allow more and more human capital to be freed from the more repetitive and tiring activities, in order to be able to engage it in activities with higher added value, generating a direct impact on overall productivity and production.

In industry, to achieve these goals, in addition to the automation discussed above, there is constant and substantial investment in digitisation and artificial intelligence (Trabelsi et al., 2023; Miranda et al., 2019). These innovations allow companies to keep every detail of the production and logistics process under control, minimising waste and enabling very targeted adjustments to production schedules. In addition, thanks to the use of blockchain technology, there is potential to generate value from the transparency of information that is made available to customers on the supply chain traceability of products on the shelf.

A further innovation we can mention is biotechnology, which has now fully entered the industry This ranges from interventions in the selection of seeds to be cultivated in each individual field, succeeding in identifying the most suitable, resistant and productive type of crop in a specific environmental context, to the creation in the laboratory of artificial meat, which allows the consumer to absorb the same nutritional contribution as farmed meat with a similar taste and 0 environmental impact.

<sup>&</sup>lt;sup>1</sup> <u>https://commission.europa.eu/news/tackling-labour-and-skills-shortages-eu-2024-03-20\_en</u> (Last accessed 15th Feb 2025)

Further innovations that can be mentioned come from the application of biotechnology, which has now fully entered the industry (Peker et al., 2024; Kordi et al., 2022; Nasser et al., 2021). Examples are the punctual selection of seeds to be cultivated in each individual plot of land, succeeding in identifying the specific type of crop and variant of species most suitable, resistant and productive in a specific environmental context; the creation of substances derived from microorganisms and enzymes that can be used in food production, in order to improve nutrient supply, fermentation, greater safety in preservation; the cultivation of meat, the finished product of which provides the consumer with the same nutritional contribution as farmed meat with a similar flavour and without any environmental impact. Therefore, the use of biotechnology has an important and multidimensional impact on the implementation of sustainability in the agri-food industry, and it is necessary for the latter to invest in research in this area and to be dynamic and open to change in order to prosper in the medium and long term.

On the issue of the large quantities of emissions generated by livestock farming, innovative technologies aimed at their reduction and recovery have been developed and are beginning to be used. The problem of the large amount of emissions generated in animal husbandry practices arises and coexists with the problem of animal waste. The innovations and technologies that have been developed and applied to this problem consist of the construction of special plants near livestock farms to process animal waste, extract methane gas, which can be used internally or resold as biogas, and transform the solid and liquid part of the waste into fertiliser, which can also be used internally or resold (Zhang et al., 2024).

This makes it possible, therefore, with a single intervention, to generate a small circular economy system within the company itself that creates: i) environmental impact, as final waste and emissions are drastically reduced; ii) economic impact, thanks to the reduction in costs resulting from the reuse of waste materials; iii) social impact, as even odours that can generally create discomfort to the surrounding community are drastically reduced.

This is a classic example of how by changing point of view and investing in innovation every threat can become an excellent opportunity for companies, in this case creating value from a traditional negative externality. It is necessary to emphasise that all these innovations and efficiencies move within the many individual companies that make up the industry, but with different weights and speeds, and that therefore the intervention of the regulator to support these processes of change is essential.

At both national and European level, the legislator invests heavily in the implementation of new technologies and process efficiency, providing both significant tax breaks to companies that invest and actively supporting companies with the provision of funds for investment purposes, sometimes even non-repayable.

Also in the financial sector, intermediaries investing in companies dedicated to the development of technologies for the agri-food industry have multiplied in recent years, seeing in this sector interesting margins of value that have not yet been expressed (Sippel et al., 2023).

The creation of value within industry, therefore, derives from many interconnected aspects, such as waste reduction, cost reduction, protection of environmental resources, reuse and reduction of waste, streamlining of business processes, reduction of emissions and transport, all of which, therefore, always relate to the subject of sustainability.

#### 2.1.3. Agri-food in the Hospitality Industry

The agri-food sector is one of the pillars of the hospitality industry; every company in this industry interfaces with it to be able to offer its customers both food and drink. This meeting of needs therefore develops a constant synergy between the two industries (Nair, 2021); the main example is that catering is precisely one of the distribution channels of the agri-food supply chain.

The relationship between the two industries is bi-directional; the companies in the hospitality industry, once they have chosen the food to be included in their offer, will carefully select which producer to turn to for the supply, opting for the company that guarantees not only the variety but above all the desired level of quality, given that it is precisely this choice that will allow them to differentiate themselves from competing companies; the companies in the agri-food industry, on the other hand, will select

which hospitality companies to present their offer to, based on the target clientele studied for each type and quality level of product.

Hospitality companies, in making their choice of supply, select those companies that can meet their needs in terms of quality level, quantity supplied over time, regularity of supply, price, and, once a satisfactory balance has been found, they usually develop long-lasting synergetic and collaborative business relationships, which allow for an increasingly precise matching of supply and demand (Alonso, 2010).

One of the main characteristics sought in supplies from the hospitality sector is the greatest possible freshness of the food product (Vasilakakis & Sdrali, 2023); this allows on the one hand the possibility of supplying the customer with a higher quality of product, and on the other hand the possibility of minimising waste; waste that is one of the main sources of financial sustainability of companies in the industry, on which the greatest efforts of economic planning are concentrated, such as the meticulous food cost analyses in the development phases of catering offers (Amicarelli et. al, 2022).

Managing supply flows is complex for both the purchasing hospitality business and the supplier of the produce. Difficulties arise from many factors, mainly the need to move large quantities of food at speed to ensure freshness for the buyer; but there are also other factors, such as variations in supply given by seasonal rotations of both plant and animal/fish products (e.g. closed fishing seasons for certain species), or fluctuations in product availability (e.g. if reared on natural feed, hens produce fewer eggs in winter than in summer and cattle produce less milk in summer/autumn than in spring). For these reasons, inconsistencies often arise between the demand for agrifood products and the simultaneous demand for sustainability (Vargas et al., 2021).

It would be very important for hospitality companies to know how to adapt their supply to the agri-food supply chain, especially when it follows "nature's time"; or, even better, does not directly create demand for natural products out of their seasonality, a demand that automatically generates supply to be met, but at the cost of sustainability. In fact, for example, the production of vegetables out of season entails large energy costs for heating and lighting production greenhouses, with the associated emissions, This is where the CSR of the hospitality company comes in, which can use its business activity not only to provide a service, but also to educate the consumer, who will also reuse the information received at home or in other hospitality establishments, so as to direct demand and thus actively create impact with the adjustment of supply by the agri-food supply chain.

Hospitality companies are already doing a great job in this regard. For example, wine and food tourism is developing a great deal, with highly demanding and aware customers entering the market, who demand high quality products and are very attentive to the value of the impact generated by production activities (González-SanJosé, 2017). This pushes the development of short food chains, which in turn generate virtuous micro systems of local circular economy, created through the collaboration of companies in the sector in that area (Paciarotti & Torregiani, 2018). This synergy allows development and growth for the whole area concerned, as has already been amply demonstrated with the small Italian industrial districts.

#### 2.1.4. Agri-food in the Hospitality Industry in Italy

In Italy, the interaction between the agri-food industry and the hospitality industry is much higher than in other realities. The origin of this stems from cultural reasons and traditions, which historically see food as their undisputed protagonist (Ingrassia et al., 2023).

This generates within the state a high sensitivity to the topic of food, registering material impacts within the agri-food industry. The productions have lower quantities, but very high quality compared to global standards, even higher than European standards. A peculiarity is that the agri-food industry is mainly composed of small and medium-sized companies, in most cases family-run.

As already mentioned, the relationship between the agri-food industry and the hospitality industry is close; in fact, in the country, the short supply chain is widely used by hospitality companies, favouring the use of local 0 km products over traditional large-scale supplies, fuelling virtuous systems of local circular economies (Paciarotti & Torregiani, 2018).

The main criticality highlighted in the relations between the two industries is dictated by the low level of organisation of the agri-food companies, which leads to communication and, above all, logistical shortcomings, making supply levels not fluid and constant; despite this criticality, the two realities remain mutually interested in collaboration, finding balances that allow both to carry out their activities regularly. The need for greater structuring on the part of agri-food companies that would allow them to develop and increase the efficiency of production and supply allocation remains evident.

In Italy, the agri-food industry has, over the years, developed in-house hospitality realities through the use of the "agritourism" enterprise (Gajo, 2010). An agritourism represents a farm that, in addition to the production of agri-food products, also provides hospitality services such as overnight stays, catering and activities in nature.

Typically located in rural areas, this type of activity attracts many consumers, generally very food-conscious and interested in quality and genuine products, who seek authentic and peaceful experiences outside of mass tourism (Ohe & Ciani, 2012). Given these cultural premises, food tourism is highly developed in Italy, which has also grown thanks to the support of the agritourism present in all rural areas. Given the international prominence of wine production, wine tourism is highly developed in the country: this is a form of experiential tourism in which customers are welcomed inside wineries and their cellars, with the possibility of both staying overnight and tasting wine productions, and live real production experiences (Piñeiro, 2015). Therefore, both the agri-food industry and the hospitality industry are very active in Italy, with their own peculiarities, driven by a strong demand for high-level productions and services, which requires a constant synergy between the two (Badia et al., 2024).

#### 2.2. Animal Welfare

Animal welfare is a very complex concept that, in its application within the livestock industry, can be defined as a set of activities and practices adopted by humans towards animals for their treatment, care, health maintenance and general welfare management.

Therefore, giving a clear and precise definition is very complex as the activities encompassed within it are many and above all multidimensional, ranging from more abstract aspects such as ethics, sociology and psychology to more practical aspects such as biology (Veissier & Miele, 2014). Moreover, this subject in turn involves a multitude of stakeholders with different, often even antithetical, interests and opinions. The first stakeholders are animal farmers and consumers, thus representing the two opposite sides of the market; around them we find legislators and the international community, researchers, philanthropists and public opinion.

#### 2.2.1. What is Animal Welfare

Animal welfare theories and related regulations have been evolving for more than five decades, but today there is a general shared understanding that poor animal welfare is firstly unacceptable from an ethical point of view, secondly it negatively affects the food safety of products and finally it has negative effects on the quality of production and on the quantity produced. Therefore, a farming system that is not compliant with animal welfare theories is an unsustainable farming system (Broom, 2019).

The first analysis of the living conditions of farm animals in history made public was conducted by the British Ruth Harrison in her book "Animal Machines". Published in 1964, the text caused quite a stir in the United Kingdom, as it detailed all the intensive animal farming practices adopted at the time, which, as can be deduced from the book's title, were anything but ethical, so much so that it prompted the British government to set up a commission to study the practices adopted and to start a path towards regulating livestock farming.

The commission, under the leadership of Roger Brambell, produced the "Report of the Technical Committee to Inquire into the Welfare of Animals Kept under Intensive Livestock Husbandry Systems" in 1965. In 1979 the committee was institutionalised by the British government through the creation of the Farm Animal Welfare Council (FAWC) (which will become first, in 2011, the Farm Animal Welfare Committee, then,

in 2019, the current Animal Welfare Committee)<sup>2</sup>, with the mission of overseeing animal welfare at all stages of livestock husbandry, from animal husbandry practices to transport and slaughter practices, and reporting to the government periodically to ascertain the need for regulatory intervention.

The first report published by the FAWC (Farm Animal Welfare Council), in 1979, is called "The Brambell Report", and is written based on the earlier 1965 report mentioned above. This report represents the first historical codification of the definition of animal welfare, enclosed by five freedoms that must be guaranteed to the animal:

- 1. Freedom from Hunger and Thirst: by ready access to fresh water and a diet to maintain full health and vigour;
- 2. Freedom from Discomfort: by providing an appropriate environment including shelter and a comfortable resting area;
- 3. Freedom from Pain, Injury or Disease: by prevention or rapid diagnosis and treatment;
- 4. Freedom to Express Normal Behavior: by providing sufficient space, proper facilities and company of the animal's own kind;
- 5. Freedom from Fear and Distress: by ensuring conditions and treatment which avoid mental suffering.<sup>3</sup>

The five freedoms theory (Brambell, 1965) is the starting point for all models, theories and regulations to follow, obviously with more or less stringent interpretations. Over the years, the FAWC (Farm Animal Welfare Council) has steadily carried out its work, preparing reports with studies on farming methods and practices to achieve animal welfare and succeeding in raising the level of attention towards this issue; but it is in the 2009 report that it raises the bar even higher, declaring that its goal is *that each and every farm animal has had a life worth living*<sup>4</sup>, thus inserting the concept of the dignity of an animal's life into a government document.

<sup>&</sup>lt;sup>2</sup> <u>https://www.gov.uk/government/groups/animal-welfare-committee-awc</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>3</sup> <u>https://www.canr.msu.edu/news/an\_animal\_welfare\_history\_lesson\_on\_the\_five\_freedoms</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>4</sup> Farm Animal Welfare in Great Britain: Past, Present and Future FAWC 2009

The most important international organization that studies and provides guidelines on animal welfare is the World Organisation for Animal Health (WOAH)<sup>5</sup>. It was created in 1924 under the name Office International des Epizooties (OIE) (in 2003 changed to the current World Organisation for Animal Health) from an international agreement to initiate global animal health surveillance activities, following a rinderpest outbreak in Belgium in 1921 from cattle in transit between India and Brazil.

The WOAH (World Organisation for Animal Health) is an independent organisation with a membership of 183 states. Its main functions are global animal health surveillance, monitoring animal welfare practices and actively promoting them, advising member states to implement their own regulations, and monitoring food safety in the global meat trade.

In particular, the organisation periodically draws up reports and guidelines on animal welfare in farming practices; these documents contain all the latest news on the subject, encompassing updates on theoretical, biological, health, psychological, technical, technological and innovation aspects, providing the basis on which legislators and the international community base their regulatory interventions.

To achieve its objectives, WOAH (World Organisation for Animal Health) works closely with other international agencies, such as the World Health Organisation (WHO), with which it even has some shared activities, the International Plant Protection Convention (IPPC), and the Food and Agriculture Organisation (FAO). It is interesting to highlight the importance of the collaboration between WOAH (World Organisation for Animal Health) and WHO (World Health Organisation), an empirical demonstration of how animal welfare has direct implications for the welfare, safety and health of the world's population; an evidence of this latter is the recent experience with the COVID-19 virus and its impact globally (Pinillos, 2021).

In nature, each family of viruses and bacteria is found to live in distinct animal species. Maintaining a high level of biodiversity and sanitary control within farms allows the natural continuation of balance in the system. It is well known that in certain contexts, often due to poor hygiene, viruses and bacteria can, over time, become vectors of

<sup>&</sup>lt;sup>5</sup> <u>www.woah.org</u> (Last accessed 15th Feb 2025)

infections or diseases transmitted through the consumption of contaminated food or direct contact with infected animals, leading to zoonotic phenomena (Boyle & O'Driscoll, 2011).

Again, to give an example of how delicate and topical this subject is, the attention of international organisations is currently focused on the H5N1 avian virus, a virus that is present in nature among wild birds, but that once it enters a farm generates real outbreaks that lead to the slaughter of most of the animals and a high epidemic risk; despite the fact that it is an infection affecting the bird species, cases of infection in humans have already been recorded, mainly farm operators, so much so that the WHO (World Health Organisation) has also activated health surveillance on humans<sup>6</sup>.

Still about health, is another example of the negative impact of farming practices on humans, namely antibiotic resistance (Pandey et al., 2024): this phenomenon will lead to the death of around 10 million people annually by 2050, becoming the leading cause of death (Tang et al., 2023). This phenomenon stems from the ill-considered use of antibiotics in intensive livestock farming over the years<sup>7</sup>, which has led to the strengthening of certain bacterial strains, generating their resistance to pharmacological treatments; the phenomenon has been regulated in the EU (European Union) with (EC) Regulation 1831/2003 and Directive 2004/28/EC, prohibiting the administration of antibiotics as growth promoters and as mass prevention drugs on all livestock on farms. Despite these interventions, the problem persists; an example is Italy, where in 2018 70% of the antimicrobials used in the whole country were administered to animals on farm<sup>8</sup>.

Also for this phenomenon, animal welfare is the right area of intervention. Reducing the administration of drugs in livestock farms can be achieved by improving the living conditions of animals, such as providing healthier and non-enhanced natural food, creating comfortable environments for animals, raising cleanliness levels, all of which together solve the causes that generate the possibility of animals becoming ill,

<sup>&</sup>lt;sup>6</sup> <u>https://www.who.int/publications/m/item/updated-joint-fao-who-woah-assessment-of-recent-influenza-a(h5n1)-virus-events-in-animals-and-people\_dec2024</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>7</sup> <u>https://www.fondazioneveronesi.it/magazine/articoli/altre-news/resistenza-agli-antibiotici-quando-il-problema-nasce-dagli-allevamenti</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>8</sup> Rapporto EMA – ESVAC 2019

achieving in a single solution both an increase in the level of animal welfare and a reduction in the risk and negative impact on the human population (Dawkins, 2019)

In the regulatory sphere, the European Union has one of the highest regulatory standards for protecting animal health and welfare. In 2002 it founded the European Food Safety Authority (EFSA), an agency responsible, among its various roles, for studying and promoting animal welfare practices for the European Community. The legislator has intervened over the years with various regulations to increase the levels of protection towards farm animals; can be mentioned, for example, the Directive 74/577/EC of 1974, which determines the introduction of the obligation to use systems for stunning animals before slaughter, or the Directive 98/58/EC of 1998 composed of a long series of specific regulations to protect animals on farms, up to the highest governmental recognition reached with the inclusion in the Treaty of Lisbon in 2009 of the definition of animals as *sentient beings*<sup>9</sup> and that, therefore, the *Union and the Member States shall...pay full regard to the welfare requirements of animals*<sup>10</sup>.

Regarding the evolution of animal welfare theories, criticism of the five-freedom theory (Brambell, 1965) began to develop after its popularisation. Criticism was levelled at the passive point of view adopted by the model towards the life of the animal, classifying the development of its welfare on principles of absence: absence of hunger and thirst, absence of discomfort, absence of pain, injury and disease, absence of fear and distress; the application of the principles of freedom, as theorised, leads to the elimination of the possibility of negative and unpleasant situations for the animals, but not to the active search for positive situations for the animals to experience within their everyday life (Mellor, 2016)

In the following years, various theories were presented that carried forward the vision of animal welfare, such as the one proposed by Fraser and Broom, who in 1990 published their "Farm Animal Behaviour and Welfare", a treatise that emphasised the importance of the behavioural and psychological aspect of the animal, in its daily life and in its interaction with the context that surrounds it, expressed as its living environment, interaction with its peers and farm operators; thus begins to take shape

<sup>&</sup>lt;sup>9</sup> Treaty of Lisbon – 2009

<sup>&</sup>lt;sup>10</sup> Treaty of Lisbon – 2009

that vision of animal welfare that will be modelled a few years later, in 1994, by Mellor, and that will arrive, with various revisions up to us today, namely the five-domain model (Mellor, 1994-2016-2020).

Figure 1 – The 1994 Five Domains Model



#### Source: (Mellor et al., 2020)

This model was created with the aim of identifying and quantifying the level of animal welfare. Its structure is hierarchical, based on four functional input categories, which flow into an outcome category, from which the level of welfare achieved by the animal is then assessed.

The input categories are nutrition, environment, health and behaviour; these inputs are measured separately and then added together to form what is a final hierarchical level, the animal's mental domain. Depending on how much the animal is in a state of overall comfort is the level of animal welfare. In essence, for the five-domain model, animal welfare is expressed by the subjective life experience of the animal according to its level of mental health.

This is a pivotal moment in the evolution of theories on the subject, as for the first time the psychological condition of the animal is included and, above all, given greater weight than the simple and mechanical satisfaction of its biological needs. The model allows the animal farmer to evaluate very targeted interventions even on only part of the inputs, with different modalities and intensities on the various aspects involved in the interventions, which in any case will have an overall positive result on the wellbeing of farm life (Turner & Dwyer, 2007).

Over the years, therefore, the concept of animal welfare has abandoned its original meaning of a simple series of separate situations, becoming instead a unique and indissoluble concept within a holistic and multidimensional vision necessary to achieve higher objectives. It is with the One Health theory (Garg & Banerjee, 2021) that the final evolution of the relevant models takes place, where animal welfare represents one of several determinants of the balance of the natural system, a fundamental balance to be maintained to ensure the safety and health of the global population.

The One Health vision grew out of a conference of experts in various scientific disciplines held in New York, USA, in 2004. The experts discussed the increasing circulation of new diseases among humans, pets and wildlife. In 2008, the largest international agencies on the subject, i.e. FAO (Food and Agriculture Organization), WOAH (World Organisation for Animal Health), WHO (World Health Organisation), together with the World Bank, united in the drafting of the document "Contributing to One World, One Health: a strategic Framework for Reducing Risks of Infectious Diseases at the Animal-Human-Ecosystems Interface"<sup>11</sup>, where the concept of One Health was first codified and reported to the international community, and which will be the working mindset of the scientific community for all the years to follow.

One of the most accredited models born from the One Health, One World theory (Garg & Banerjee, 2021) is the one called One Welfare (Pinillos et al., 2016).

<sup>&</sup>lt;sup>11</sup> <u>https://www.fao.org/4/aj137e/aj137e00.htm</u> (Last accessed 15th Feb 2025)

#### Figure 2 – One Welfare approach



#### Source: (Pinillos et al., 2016)

This model analyses the interrelationships between human welfare, animal welfare, and the physical and social environment, placing under the One Welfare "umbrella" a long list of sectors, sometimes distant from each other, that in mutual interaction lead to the development of systemic welfare.

The three pillars of the model are Animal Welfare, Human Wellbeing and Environment Conservation. Animal Welfare, therefore, plays a fundamental role in generating natural systemic balance. The model demonstrates how increased animal welfare generates positive direct and indirect impacts on human and environmental well-being.

The systemic view makes it possible to show how interventions in one area can have repercussions in different and apparently distant areas. An applicative example of the model can be the cause-effect analysis of a series of simultaneous requests that are often made to livestock farmers, i.e. improving efficiency, increasing animal welfare, reducing the use of antibiotics and medicines and reducing environmental impact. Historically these interventions are seen as conflicting with each other, while, through the use of the One Welfare model, it is possible to broaden the perspective of the context of the interventions and show how in reality they are all connected interventions that generate positive impacts even beyond the initial intended boundary: by improving the nutrition of the animals on the farm, for example by using high quality natural organic feed, there is an increase in the level of animal welfare that generates a reduction in environmental impact and an increase in the health conditions of the animals, with an associated reduction in the use of drugs and a reduction in the mortality rate, which in turn generates positive economic impact for the farmer, all results that benefit the efficiency of the structure; in addition, at the system level, there is a reduction in the risk of zoonoses and infections, improved working conditions for farm staff, which in turn generates improvements in their mental health and increased satisfaction levels.

It is evident, therefore, that thanks to the One Welfare model that broadens the vision, the final evaluation of animal welfare interventions has such a wide repercussion that it almost has a positive impact on the system, especially in the medium to long term.

The achievement of animal welfare is one of the foundations of the sustainable transition and a fundamental of sustainability itself; therefore, raising animal welfare standards substantially, both through increasing legal minimums and in the field, is a necessity for society, as well as an ethical choice, since the problems generated by non-sustainable livestock farming practices have a direct impact on the lives of the entire population (Buller et al., 2018).

#### 2.2.2. Animal Cruelty

As discussed earlier, the level of animal welfare within a herd derives from a multitude of different but interconnected factors that need a holistic approach to be able to develop an exhaustive and realistic analysis that correctly allows the study of the interventions necessary for its implementation.

The main aspect that generates animal welfare is the daily context, with everything that makes it up, within which the animal lives and its comfort in adapting to it. In fact, the most underestimated feature in animal farming practices is precisely the psychological aspect of the animal's life: the animal needs to live in environments that allow it to fully express its natural behaviour; if the context does not allow it to do so, the animal will enter states of major stress that generate psychological problems, even serious ones, vented in the form of behaviour that is not in keeping with group life, with repercussions on all the activities of the entire farm (Veissier & Miele, 2014).

It is from this phenomenon that the main cruelty activity on farm animals arises, by necessity: mutilation. Mutilation is the practice of removing, totally or partially, nonvital parts of an animal's body. Mutilation practices on farms are varied, and vary from species to species; here is a list of the main ones (Della Rocca & Di Salvo, 2011):

- Tail Docking, performed on pigs: when subjected to severe stress, mainly caused by overcrowding, pigs adopt violent and non-conservative behaviour among peers, leading them to attack and bite each other's tails; animal farmers, therefore, proceed in advance with tail docking of all animals on the farm to prevent damage to the animals and problems in the management of animal farming activities;
- Teeth Clipping, performed on pigs: the causes are the same as for tail docking, but in this case the mutilation consists in removing the animals' teeth so as to avoid any type of damage;
- Beak Trimming, performed on fowl: as in pigs, when subjected to severe stress, mainly caused by overcrowding and lack of available food, chickens adopt violent behaviour and peck at each other, causing injuries, sometimes even fatal; or, especially in intensive laying hen farms, animals develop feather pecking behaviour; animal farmer use this beak mutilation practice in order to eliminate various problems in the management of animal farming practices;
- Dehorning, performed on cattle: this mutilation is carried out for preventive reasons; the removal of horns allows a reduction of risks for herd operators in carrying out ordinary activities; furthermore, with the removal the risks of injuries between animals are also reduced;
- Ear Notching, performed on pigs: cuts are made on the ears or partial removal of the part; they serve the purpose of visual identification of the animal, thus a practice necessary purely for the convenience of the operator;

• Caponisation of male chickens: castration takes place for quality purposes of the slaughtered product, creating more tender and fatter meat.

Almost all the reported practices take place without the use of anaesthesia, causing pain to the animal while the practice is performed. Mutilations can also lead to permanent chronic pain and stress in the animal, with accompanying consequences on its psychological and behavioural state, with impacts on its overall well-being.

As analysed, mutilations occur mainly to manage complex problems through the mere elimination of the symptom, without going to solve the source of the problem, which, as we have seen, always derives from causes attributable to the erroneous reproduction of a context consistent with the correct course of the animal's daily life in comfortable situations. Some practices are even preventive or comforting for the operator, activities therefore even more serious (Edwards & Bennett, 2014).

To better understand the extent and impact of mutilation practices on the lives of animals, it is worth remembering that mutilated parts are often actual sense organs used for different reasons in the daily life of the animal; for example, both tails in pigs and horns in cattle, are materially tools used among animals to communicate with each other and to perceive and interact with their environment. Unfortunately, the subject of animal cruelty has a high level of subjectivity dictated by different collective sensitivities and cultures, but above all, it is not a topic known to consumers (Connor & Cowan, 2020)

Mutilations represent the most serious of the practicable animal cruelty events, although there are less egregious practices that are nevertheless assimilable to the category of human animal cruelty practices and unfortunately still in use. Examples include the iron branding of animals on farms, fixed housing, the rearing of laying hens in battery cages, gestation crates for sows, and even the genetic selection of animal breeds with a high growth rate; for example, the broiler chicken breed, which has such a high growth rate that bones, lungs and heart cannot keep up (up to 9.6% of deaths from cardiac arrest without signs of illness are recorded in colonies<sup>12</sup>).

<sup>&</sup>lt;sup>12</sup> <u>https://www.msdvetmanual.com/poultry/sudden-death-syndrome-of-broiler-chickens/sudden-death-syndrome-of-broiler-chickens</u> (Last accessed 15th Feb 2025)

#### 2.2.3. Farming Methods and Ethics

There is currently a wide variety of farming methods in use. Legislation, as analysed above, lays down very precise rules regarding the minimum levels of animal welfare to be guaranteed at each stage of the rearing process; these minimum standards imposed are in turn classified into different categories that are more or less stringent depending on the rearing model practised by the farm.

Even though the European system represents one of the highest standards in the field, unfortunately these minimum standards are still too broad, especially for nonorganically certified farms, to be able to achieve a satisfactory level of animal welfare by law. Moreover, the regulations are not too clear and leave room for interpretation on many points, allowing more flexibility in farming activities to the detriment of animal welfare.

Therefore, the personal intervention of the animal farmer is fundamental in the amount of ethics that he will put into the performance of animal farming activities on his farm, with the relative greater or lesser attention to animal welfare, to achieve the result, since the regulatory minimum standard is not sufficient to guarantee it.

The premise to be made regarding the subject under discussion is that each animal farming model encompasses different sub-models based on the peculiarities of each type of animal bred, as each species has specific characteristics that require customisation of structures and processes. In the following, therefore, the distinctive features of one model over another and the rationale that guides each model will be analysed.

The livestock farming models in use today are classified into three categories: intensive or industrial livestock farming, extensive livestock farming and organic livestock farming (Swanson, 1995; Turner & Dwyer, 2007; Spoolder, 2007)

Intensive livestock farming, also known as industrial or conventional livestock farming, is characterised by a high density of animals per area used for activities. The animals are reared in closed environments, often in small cages or pens with little or no natural light, where the activity of producing meat, milk, eggs or other by-products is carried out industrially under the sole objective of maximising efficiency, and

consequently, revenues; this method, therefore, allows maximum results to be obtained at low costs (Fuchs, 2001). The intensive model is considered the most harmful model with respect to animal welfare and the impact on the environment and sustainability in general.

The main problem with this model is overcrowding, which generates the almost complete absence of the possibility of reproducing the behaviour that the animal would have adopted in the wild, leading to major psychological problems in the animals and drastically reducing the level of animal welfare as previously discussed (Li et al., 2015; Blokhuis, 1994). Other problems are the use of additives and enhanced feeds to favour the development and growth of the animals in the shortest possible time, a greater use of drugs as the animals become sicker given their living conditions, the use of mutilation practices to avoid damage caused by the accumulated stress of the animals, major environmental impacts caused by the high consumption of resources and the high amount of animal waste produced.

Extensive livestock farming, on the other hand, has fewer negative impacts than intensive livestock farming and is a more sustainable model. The main difference with the previous model is that the animals have a lower density than in intensive farming, so they have more space available, which means they can move around and interact with each other. Both open and enclosed spaces can be used, and feeding is more natural and less enriched (Tovar & Giraldo, 2006). Enclosed spaces have environmental enrichment. Production is less efficient than intensive livestock farming and costs more, but the animals achieve a lower level of stress and thus a higher level of welfare. This results not only in higher quality production, but also in products that are considered healthier and more nutritious. The higher production cost is passed on to the consumer, who will pay a higher price than the intensively reared product (Herbut & Walczak, 2008).

The third type of farming is organic farming, the least used but the most ethical and sustainable of the three (Lund & Algers, 2003). This farming method has stricter rules to comply with than the other types of farming. The animals must live in large spaces, even outdoors, where they can graze and move freely. Feeding must be natural, without the use of GMOs, pesticides or chemical fertilisers, without other enhancements and

without the use of hormones. There must be no use of preventive or growth-promoting antibiotics. In addition, a positive environmental impact is also required through sustainability in the use of resources and the disposal and composting of animal waste. This model is even less productive than extensive farming but allows a high level of product quality to be achieved. The animals live in an environment more suited to their nature and generate almost no psychological problems. Thanks to the restrictions imposed on feeding, the whole chain leads to a more natural production with minimal environmental impact (Verhoog & de Wit, 2006).

Within the macro-categories extensive livestock farming and organic livestock farming, we find different ways in which activities can be carried out. As already mentioned, for the latter two types of livestock farming there is the possibility of using closed or open spaces or both, with the specific constraint that, for organic only, the use of closed spaces must in any case have an accessible open area. In these last two types under analysis, the farming methods with the greatest impact on animal welfare are those defined as pasture-raised and free-range. The main characteristic of these methods is the possibility for animals to move freely in the open spaces or in very large enclosures, eliminating restrictions such as cages or small pens. Only in free-range grazing, animals can be, at certain times or at night, confined indoors; in pasture-raised, on the other hand, animals spend most of their lives outdoors.

Animals have the possibility to freely express their natural behaviour, they can graze, dig, interact with each other and with their surroundings without restrictions. The main problem generated only in the pasture-raised method is that the animals, not having an enclosed place to shelter, are always exposed to the weather, and will therefore have to seek shelter on their own (Petherick, 2005). Feeding takes place naturally from the environment where they graze or with the supplementation of natural feed by the operators. No preventive antibiotics or hormones are used to speed up growth. The animals achieve a high level of well-being, as they have no sources of stress. Production is much lower and less efficient than other animal farming models, and obviously the cost of production is affected, which is higher, but this is repaid with a much higher quality of product with resale at a premium price (Zander & Hamm, 2010).

Then there are some very residual types of animal farming that base their activities on a holistic approach in the use of all natural factors. In particular, animal farming practices are integrated with farming practices, with the aim of respecting the natural interactions between flora and fauna in order to create a healthier environmental system capable of maintaining, and in some cases implementing, its biodiversity and healthiness (Popescu, 2018). There are various methods that apply these theories in different ways, such as Permaculture, Agroforestry, Biodynamic Agriculture and Regenerative Agriculture.

As with animal welfare, in order to be able to classify a livestock farm as ethical, it is necessary to holistically analyse the behaviours adopted in every aspect of livestock farming activities, not limiting oneself to classifications in macro-categories: these should be sought in practices such as care and attention to animal welfare, the adoption of adequate and high quality food, the reproduction of a natural environment, attention to the psyche of the animals and the environmental impact, and efficiency in the use of natural resources (Yeates, 2017; Sandoe et al., 2003).

As a result of the analysis carried out on the different animal farming methods, some critical points are highlighted. The meat market is growing steadily because of the constant increase in demand (Jia et al., 2023); this is mainly dictated by the general improvement in the welfare of the global population, especially in emerging countries. The intensive production model, despite encompassing the worst set of farming practices with respect to animal welfare and sustainability, is a crucial model for meeting the huge demand.

At the same time, the large-scale use of the highest ethically regulated model of animal husbandry, i.e. organic, is unsustainable; below an example. "Essere Animali", one of the most important non-governmental animal welfare organisations in Italy, carried out a study hypothesising the impact that the transformation of all farms in Italy from conventional to organic would have, according to European Union regulations (data 2019<sup>13</sup>) : the minimum legal standard for farming sows is 1.5 square meters per sow, while the organic standard envisages 6.5 animals per hectare; the minimum legal

<sup>&</sup>lt;sup>13</sup> <u>https://www.essereanimali.org/2019/07/allevamenti-biologici-non-sono-sostenibili/</u> (Last accessed 15th Feb 2025)

standard for rearing laying hens is 13 hens per square meters, while the organic standard envisages 230 animals per hectare; again, the minimum legal standard for the rearing of chickens is 20 chickens per square meters , while the organic standard envisages 580 animals per hectare; assuming the conversion of all the current farms on national soil, of all the animals reared, to minimum organic standard levels, would entail a change in the use of land for rearing from the current 100.000 hectares to 5 million hectares, making the impossibility of such a solution evident; furthermore, the breeds generally used in organic farming are those that are not selected for fast growth, so switching to this method would also entail longer timeframes for reaching commercial size, with the associated greater consumption of resources and greater production of pollution and waste material.

As already mentioned, European Union regulations represent one of the highest standard meat production systems in the world; European Union production is not sufficient to meet domestic demand, therefore, approximately 25%<sup>14</sup> of meat on the European market is imported from abroad; in Italy this percentage even reaches 35%<sup>15</sup>. Raising animal welfare standards would lead to a further reduction in production capacity for the reasons outlined above. Regulation (EC) No 1234/2007 and Regulation (EC) No 566/2008 stipulate that all imported meat must be traced and is subject to health checks on entry into the European Union territory; in addition, the European Union reserves the right to verify on-the-spot in third countries the hygienic and sanitary conditions of livestock farms to verify the origin of the meat. It is true that the legislation aims to use the traceability of imported meat as a vehicle of safety and transparent information to the final consumer, but, in any case, those animals will have been reared according to local regulations that, in most cases, will have lower standards than the European Union's animal welfare standards, thus not being able to guarantee the effective respect of these practices in farming activities and final quality.

Therefore, there is evidence that regulatory, communication and transparency measures are needed to reduce the demand for meat (Koch et al., 2022; Carlsson et al.,

<sup>&</sup>lt;sup>14</sup> <u>https://www.assalzoo.it/scopri-il-settore/statistiche/bilancio-alimentare-dei-prodotti-di-origine-animale/</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>15</sup> <u>https://www.assalzoo.it/scopri-il-settore/statistiche/bilancio-alimentare-dei-prodotti-di-origine-animale/</u> (Last accessed 15th Feb 2025)
2022), which is the real primary cause of the need to use intensive industrial livestock farms. In addition, the minimum regulatory standards for this type of livestock farming must be raised at the same time, aiming to reduce the negative impacts on animal welfare and the environment, forcing a move towards ever greater sustainability with the implementation of circular economy systems in all livestock farming activities, including through new technologies that allow the reduction and reuse of waste in production processes.

### 2.2.4. Animal Welfare Detection and Certification

Having analysed what makes up the concept of animal welfare, lets proceed to analyse how and if it is possible to objectively detect this condition, being an abstract and multidimensional concept. The concept of animal welfare needs a holistic and multidimensional approach to be developed and, therefore, also evaluated; this, however, represents a problem, since the evaluation criteria are often subjective and generate qualitative data developed from personal interpretations, as it is difficult in this field to find objective and easily available quantitative analysis metrics (Turner & Dwyer, 2007).

There are specific blood analyses that make it possible to obtain objective values for each animal, such as cortrisol levels (Aguiar et al., 2023), cytokine (Caroprese et al., 2015) and acute phase proteins (Cray et al., 2009) or immunological values, all information that can highlight the existence of more or less severe stress situations in the animal. These methods, however, are very complicated to apply in animal farming practices, since firstly it is difficult to trace back precisely the cause that developed that physiological response, secondly, when talking about animal farming, it is necessary to analyse the information in a systemic manner and not on the individual animal, both for the purpose of analysing the information and for any necessary intervention.

Biological data potentially useful in the evaluation of animal welfare within a herd can be the general levels of disease of the animals, through the creation of statistical indicators that highlight the percentages and frequencies with which the animals fall ill, the mortality rate, also analysed on a second level with groupings by age groups, the practice or not of mutilation on the animals on the farm (Pugliese et al., 2021).

One of the most useful methods remains the behavioural analysis of the animals, which, despite being a highly subjective and qualitative method, makes it possible to verify and investigate the state of welfare starting from precisely where the symptoms of malaise, i.e. the abnormal behaviour of the animal, are vented (Vasseur, 2017).

The detection of animal welfare on the farm is necessary both for the farmer for management purposes and to provide transparent information to the end consumer. Companies can communicate with the consumer through all marketing activities, informing him/her about their product and practices in production, but the main source of information remains the product label (Sorensen & Schrader, 2019).

Currently, following the entry into force of Regulation (EC) No 2295/2003, the only transparent information that must be provided to the consumer in the European Union on animal welfare is the type of farming in the production of eggs: each egg, and each package, must expressly state whether the product comes from organic farming, freerange outdoor farming, free-range indoor farming or cage farming. As a result of this labelling legislation, the egg market has seen a huge increase in demand for eggs produced from free-range indoor, forcing operators over time to increasingly reduce the production of eggs from cage and battery farms. An article in Il Sole 24 Ore reports that, in Italy in 2020, as much as 49 % of total egg production will come from freerange indoor farms, 21% more than the previous year<sup>16</sup>; so the numbers also confirm that consumers, if properly informed, make conscious choices and have the ability to influence production activities towards more ethical methods. On all other meat products and derivatives, this kind of information does not have to be shown on the label, thus generating a great lack of information and above all confusion in the consumer (Miele & Blokhuis, 2023). Many companies, unfortunately, taking advantage of this lack and regulatory vacuum, fill the label with wordings concerning welfare, animal respect, cruelty free, when they remain only commercial practices that have no real business connection.

<sup>&</sup>lt;sup>16</sup> <u>https://www.ilsole24ore.com/art/uova-consumi-crescita-premiano-allevamenti-terra-e-sostenibilita-AD9fVHRB</u> (Last accessed 15th Feb 2025)

A potentially useful tool to make up for the lack of international or regulatory standards is certification. Certification is a certificate that guarantees compliance with a set of rules, contained within a disciplinary document, by the company that seeks accreditation and receives it following verification of compliance with these rules. Once certification has been received, the producer can display the certificate, or the logo that usually represents its accreditation, in its marketing activities but above all on the packaging of its products, to expressly inform the consumer and diversify itself from the competition on the shelf. In the field of animal welfare there are many certifications, mainly issued by certifying bodies under the supervision of animal welfare organisations. Unfortunately, even this tool is not a transparent source of information; in fact, each certification has its own specification different from the others, each with different criteria for evaluating the parameters and minimum standards required, not allowing an easy and quick understanding of the animal welfare standards that the certification guarantees to the consumer (Main et al., 2014; Annen et al., 2013). Furthermore, the application for accreditation to certification is always at the instance of the animal farmers, who will therefore be able to choose which certification to apply for and will be free to select the one where the standard to be met is already met without necessarily having to improve his or her animal welfare activities.

"Compassion in World Farming", one of the largest and most important international non-governmental organisations for animal welfare, periodically carries out an evaluation of the specifications used by the various animal welfare certifications on the market, issuing their assessment on certification based on three levels (Bronze, Silver and Gold) depending on the level of animal welfare standard required for accreditation. The evaluation is based on a long and articulated series of qualitative and quantitative criteria on five macro areas: animal environment – husbandry – stockmanship, handling, transport & slaughter – genetics & breeding – auditing.

This model, shown below (see Figure 3), is very useful for the understanding of all that encompasses the concept of animal welfare, and above all it allows one to visualise the complexity and holistic vision necessary to achieve standards that have a tangible impact.

ENVIRONMENT	This set of criteria covers features of the housing system and the provision of space, light and physical resources necessary to provide high welfare potential.
No close confinement	Confinement systems have low welfare potential because they severely restrict animals' movement and behaviour. Examples include sow stalls and farrowing crates for breeding pigs, tethering of cattle and sheep, and battery cages for laying hens.
Adequate space allowance when housed	Adequate space is a fundamental requirement of any farming system to enable animals to perform a wide range of important natural behaviours and to reduce the risk of problems with aggression and harmful social behaviours such as tail-biting in pigs, feather-pecking in poultry and cannibalism.
Appropriate housing design	This includes features of the housing environment not covered elsewhere such as flooring type for pigs, cattle and sheep, provision of wallows and/or showers for pigs, and environmental conditions for poultry and salmon (e.g. temperature, humidity, air or water quality).
Provision of appropriate bedding/ litter/enrichment material	Appropriate bedding for mammals, litter material for poultry and additional enrichment for pigs and poultry are important for comfort and to provide opportunities for foraging, rooting (pigs), dustbathing (poultry) and exploratory behaviours. Environmental enrichment is also likely to be beneficial for salmon by providing opportunities for hiding and escape from aggressive interactions.
Provision of appropriate nesting facilities	Nesting behaviour is highly motivated in many species and provision of appropriate nesting facilities is essential for good welfare of breeding sows, laying hens and breeding poultry.
Appropriate lighting	This includes light intensity, light/dark periods and, for poultry, the provision of a twilight period to allow birds to settle and minimise the risk of injuries.
Free-range access	Free-range systems have high welfare potential because they provide a complex and interesting environment with ample opportunities for exercise and expression of a wide repertoire of natural behaviour.
Adequate outdoor space	It is important that stocking densities in outside areas are low enough to keep the ground in good condition, to provide adequate foraging resources, and to protect animal health by limiting the build-up of parasites.
Appropriate shelter/shade and protection from predators	Appropriate shelter and shade are essential to protect animals kept outdoors from rain, wind, sun and extremes of temperature. Overhead cover is important to encourage poultry to make full use of the range area.
Appropriate social grouping	Farmed animals may be kept in very large groups. This can cause problems for the recognition of individuals, which is often important for the social functioning of the group. Management practices often involve grouping animals according to size or production status, which may entail repeated regrouping, leading to social instability and aggression. In some cases, animals may be kept in social isolation, particularly breeding males, and this can also be a major welfare problem.
HUSBANDRY	This set of criteria covers how the animals are managed on farm, including mutilations and other invasive procedures, feeding and weaning practices and monitoring of health and welfare by producers.
No mutilations	Mutilations are operations that involve interference with the bone structure or sensitive tissues and are often carried out to make animals easier to manage or in an attempt to prevent welfare problems caused by harmful social behaviour associated with an inadequate environment. Most are carried out without any anaesthesia or analgesia. Examples include tail docking, teeth clipping and nose ringing of pigs, disbudding/dehorning and castration of cattle, tail docking and castration of sheep, and beak trimming of poultry.

Figure 3 – Compassion in World Farming Animal Welfare Evaluation Framework

No use of genetic engineering/cloning or invasive reproductive technologies associated with health or welfare problems	The use of cloning and genetic engineering in farm animal breeding presents severe welfare challenges as a direct result of the technologies and also through exacerbation of the problems caused by selective breeding for excessively fast growth rates and unsustainably high yields. Welfare problems can also arise from the use of invasive reproductive technologies such as embryo transfer.
Appropriate feeding	This includes the provision of adequate fibre for pigs, cattle, sheep and laying hens, sufficient iron and fibre for calves, and the duration of feed withdrawal prior to slaughter, which may be particularly severe for salmon and fast-growing meat poultry.
Appropriate weaning age	This criterion applies to mammals and refers to the age at which milk provision is stopped. For piglets, beef calves and lambs reared for meat this usually coincides with the cessation of maternal care, whereas dairy calves and dairy lambs will typically be removed from their dam very early and reared separately on milk or milk replacer. If milk provision is stopped before young animals are fully able to digest solid food this can result in significant health and welfare problems. Provision of adequate maternal care is also considered to be important for good welfare. However, this is not included in the analysis because it is usually considered impractical for dairy animals in current farming systems.
Adequate monitoring of health and welfare by producers	This criterion refers to on-farm monitoring of health and welfare by producers. Continual monitoring of health and welfare is essential to ensure that any problems are quickly identified and addressed. The setting of farm-specific targets for key welfare indicators is useful in encouraging continuous improvement. However, it is preferable for stringent targets to be set by the scheme so that all scheme members must achieve an acceptable level of welfare. Such targets could facilitate a move away from the use of breeds and systems that are incompatible with good welfare.
STOCKMANSHIP, HANDLING, TRANSPORT & SLAUGHTER	This set of criteria covers how the animals are cared for and handled on farm and during transport, marketing and slaughter.
Appropriate handling	This includes prohibition of the use of electric goads for mammals, humane catching methods for poultry, and handling and grading methods for salmon.
Promotion of high quality stockmanship	High quality stockmanship is essential for good welfare in all systems. Schemes should ensure that stockpeople are well-trained and competent.
Frequent checks for signs of illness, injury or distress	Frequent checks are essential to ensure any animal suffering from illness, injury or distress is rapidly identified so that appropriate treatment or assistance can be provided to minimise suffering.
Short transport duration	Transport is a very stressful procedure and the negative impacts on welfare generally increase with increasing journey duration. Ideally, animals should be slaughtered on the farm where they are reared or at the nearest abattoir. Current legislation allows repeated cycles of travel and rest periods with no overall limit on the total length of journeys. Schemes should set a limit on overall journey length, ideally no more than four hours and certainly no more than eight hours.
No live export	The export of live animals often involves very long journeys and great suffering, only for animals to be slaughtered when they reach their destination. Animals should instead be slaughtered as close as possible to where they are reared, with the meat exported to wherever it is required. Young calves may also be exported to be reared for veal, often in conditions that would be illegal in the UK.
No use of livestock markets	The sale of animals through livestock markets is very stressful, involving repeated loading, transport and unloading. Animals are often exposed to stressful handling procedures, grouping with unfamiliar animals and high noise levels.
Humane slaughter	This includes the prohibition of inhumane slaughter methods and specifications and monitoring to ensure effective stunning and unconsciousness until death.
Promotion of high welfare standards in the handling of animals during transport and slaughter	Training of staff involved in the handling of animals during transport, lairage, stunning and slaughter is essential to achieve acceptable standards of welfare. Slaughterhouses should have a written policy on animal welfare and designated staff responsible for ensuring high welfare standards. The installation of CCTV to monitor all stages of pre-slaughter handling, stunning and slaughter can play an important role in ensuring welfare policies are properly implemented in practice.

GENETICS & BREEDING	This set of criteria covers the breeding of the animals, including the types of breed permitted by the scheme and the welfare standards for breeding animals.
No use of breeds associated with increased incidence of health/ welfare problems	Selective breeding for fast growth and excessively high yields has led to a number of very serious welfare issues for many species, including lameness and cardiovascular problems in pigs, beef cattle and meat poultry, reduced longevity and increased levels of infertility, lameness, mastitis, and metabolic diseases in dairy cows, and high susceptibility to bone fractures in laying hens. For some breeds, these welfare problems may be so severe that the animals are unable to have a life worth living.
High welfare standards for breeding animals	This covers the welfare of breeding boars, bulls and rams and breeding flocks of poultry. The welfare of these animals is scored separately, based largely on the key criteria for the species as a whole plus any additional criteria of particular relevance for breeding animals. This score is then incorporated into the overall scoring for the species.
No killing of surplus male animals	Selection for excessively high yields of milk and eggs has led to the males of some species being considered as waste by-products of milk and egg production. Male calves and lambs of dairy breeds may be considered unsuitable for rearing for meat and may be killed at birth. Male chicks of egg-laying breeds of poultry are routinely killed shortly after hatching. This issue could be eliminated by the use of dual-purpose breeds. Where specialised breeds are used, schemes should aim to ensure that male dairy calves and dairy lambs are reared for meat. Whilst they may not have the rapid weight gain and heavy carcasses valued by many producers, such animals can have certain advantages, such as producing lean meat for health-conscious consumers.
AUDITING	This set of criteria covers how the schemes ensure compliance with the standards and monitoring to ensure the standards are achieving an acceptable level of welfare.
Frequent inspections	Frequent inspections are essential to check compliance with the scheme standards.
Spot-checks	Spot-checks, particularly unannounced spot-checks, are important to check that the scheme standards are being complied with at all times and not just when producers are expecting an inspection. Ideally, spot-checks should be targeted at those producers who, for any reason, are considered more likely to have non-compliances, whilst some random spot-checks can also be useful so that all producers know they may receive an inspection at any time.
Monitoring of welfare outcomes by assurance scheme	This criterion refers to monitoring of welfare outcomes by the assurance scheme, which is essential to ensure that the scheme standards are achieving an acceptable level of welfare in practice.
Measures to address non-compliance	Stringent measures to address non-compliance are essential for the scheme standards to have real meaning. Any serious non-compliance should result in suspension of certification until the problem is rectified and withdrawal of certification if necessary. Minor non-compliances should be addressed within a specified time period. Multiple or repeated minor non-compliances should be treated as a serious non-compliance.

Source: <u>https://www.ciwf.org.uk/media/5231246/standards\_analysis\_exec\_summary.pdf</u> (Last accessed 15th Feb 2025)

Given the complexity of the subject, both in terms of the large number of disciplines dealt with in a single concept and the vast number of variables involved, there is a clear need for action to create standards that allow both simplification and transparency towards the consumer to make them aware of their consumption choices.

# 2.2.5. Animal Welfare in the Hospitality Industry

Society's interest and media attention towards animals has grown considerably in recent years in the world, especially in the West; several phenomena, which have developed over short periods of time, demonstrate this. A first example is the steady increase in the population of pets kept by households globally, as shown by studies conducted by "Health for Animals"<sup>17</sup> and "AVMA"<sup>18</sup>. Another example is the increasing number of people adopting animal protein-free diets such as vegetarians and vegans (Alcorta et al., 2021).

One of the reasons for this paradigm shift can be traced back to the effects of the COVID-19 pandemic (Weng & Ogata, 2023); this event generated two types of response in the population, i.e. in the already pet owners, as a result of the prolonged periods spent at home between lockdown and home working, an emotional-affective bond with their pets was strengthened; for the non-pet owners, the prolonged period of social isolation led to awareness and adoption of pets. This has generated a new common feeling in the relationship between humans and animals, and reawakened that sensitivity and ethical response not only towards the latter, but also towards the more general and transversal issues of sustainability, bringing to people's attention the impacts of their daily activities in this area, especially in their consumption preferences.

The numbers also confirm these trends; for example, the global value of the pet food market in 2023 was the impressive amount of \$103.3B, with forecasts to exceed \$500B by 2030<sup>19</sup>. This shift in society's overall outlook impacts consumption practices and creates market demand that needs to be met.

In the food sector, the on shelf offer of certified vegetarian and vegan products has exploded; more and more food manufacturers are providing information on their

<sup>&</sup>lt;sup>17</sup> <u>https://healthforanimals.org/reports/pet-care-report/global-trends-in-the-pet-population/</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>18</sup> <u>https://www.avma.org/news/pet-population-continues-increase-while-pet-spending-declines</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>19</sup> <u>https://www.grandviewresearch.com/industry-analysis/pet-food-industry</u> (Last accessed 15th Feb 2025)

impact and sustainability, implementing transparency on their production activities and including full product traceability (Asioli et al., 2020).

These phenomena are also affecting the hospitality industry. This trend creates the need for the entire hospitality industry firstly to make conscious choices in the supply of what they are going to offer their customers, as there is more end-user awareness and demand for transparency; then, to implement their own services, so as to become sustainable and reduce their impact, also working on increasing ancillary services, such as pet friendly policies, now necessary from a common feeling point of view and the very high demand, given the above-mentioned pet numbers, in order to be competitive on the market (Tsou et al., 2022).

Airbnb, one of the largest global hospitality operators, stated that in 2022 more than 27% of the accommodation available on its platform globally offered pet-friendly services, up 23% from 2018. A very high number, considering that it represents almost one third of the total offer<sup>20</sup>. In this area, therefore, hospitality companies need to innovate and evolve their offer to remain competitive and not exit the market (Zhang et al., 2024). There is such a high demand that there are hotels and restaurants whose offer is exclusively aimed at this type of clientele.

In addition to mere market requirements, this is above all a matter of social responsibility, which is always a company's responsibility towards sustainability issues, and the duty to make ethical choices in the conduct of business. Among these issues is, of course, animal welfare.

The application of animal welfare within a company in the hospitality industry means that series of activities carried out by companies to offer their customers foodstuffs that meet minimum standards, mentioned above (Jones & Comfort, 2022). The choice of the product to be offered can be made passively or actively; passively through the choice of the products offered by means of transparent information on the products purchased (labelling); actively through a field search for suppliers that meet the

<sup>&</sup>lt;sup>20</sup> <u>https://news.airbnb.com/it/vacanze-pet-friendly-su-airbnb-italia-al-primo-posto-in-europa/</u> (Last accessed 15th Feb 2025)

standards chosen by the company, followed by a factual verification in the field of the information received from the supplier.

There are realities, such as the one that will be analysed in the data case of this thesis, that actively carry out the selection of their suppliers and exchange information on their selections between companies to create a network of virtuous companies in this regard. The use of animal welfare raw materials within the supply is also necessary to fulfil a very important social function on the part of companies, namely, to educate consumers and guide them in their choices, helping them to be informed and aware (Brown & Hollingsworth, 2005).

One of the main limits for the subject under analysis is precisely the lack of information present among operators in the sector and towards the consumer, who very often is not fully aware of what is consuming.

# 2.2.6. Animal Welfare in the Hospitality Industry in Italy

Italy represents a context within which animals have historically had a very important weight. Evidence of this is dictated by the impressive number of pets that the population has: a study from 2022 quantifies the pet population as 65 million<sup>21</sup>, which, if compared to the population of the same year of 58.94 million<sup>22</sup>, reveals the presence of 1.1 pets for every inhabitant of the country. Hence a particular sense of care and attention towards animals in common feeling.

This spills over into the markets through the creation of demand both for animalspecific products and, above all, attention to animal welfare issues, generating an impact on food and service companies, including the agri-food industry and the hospitality industry. One of the main impacts is on the ancillary services required by food and accommodation businesses, where actions are needed to adapt to increasing demand. First and foremost is the need to allow pet access to the premises, i.e. the implementation of pet-friendly policies.

<sup>&</sup>lt;sup>21</sup> <u>https://globalpetindustry.com/news/the-pet-industry-in-italy/</u> (Last accessed 15th Feb 2025)

<sup>&</sup>lt;sup>22</sup> https://datacatalog.worldbank.org/search/dataset/0037712 (Last accessed 15th Feb 2025)

Analysing again the report of the Airbnb portal, this time with data from Italy, in the year 2022 the platform reported that 39% of all facilities on offer are pet-friendly, the first country in Europe, and that bookings of facilities compliant with these policies grew by 90% in Italy over the previous year, demonstrating the magnitude of the challenge for the industry<sup>23</sup>.

This also has an impact on the agri-food industry; consumers, in fact, are increasingly demanding attention to animal welfare. A study highlighted that as many as 69% of consumers pay attention to animal welfare in the purchasing phase, looking for information about it on the label; however, the criticality of information deficiencies in the latter remains, as already highlighted in the analyses of this chapter. In particular, in the Italian context, the problem of confusion generated by the absence of standards on the subject is accentuated due to the scarce use of the various international certifications present on the market, also leading to a lack of information on the existence of the issue, both in the final consumer and in the hospitality company that must select the product for its offer (Rubini et al., 2021).

In Italy in 2022 an attempt was made to create a single certification under the patronage of the Ministry of Agriculture, namely the SQNBA certification (Sistema di Qualità Nazionale per il Benessere Animale - National Quality System for Animal Welfare). The certification is on a single level of accreditation and does not have scores (therefore it does not allow a comparison between accredited companies), it is based on compliance with specific standards in four macro-areas (animal welfare, biosecurity, veterinary medicine, environment) on customised specifications depending on the breed of animal and size category of the farm. Unfortunately, the system is not functional for what should be the objective of a certification to be presented to the consumer; on the contrary, it leads to misinformation and generates further confusion. In order to receive accreditation, the specifications of this certification provide for compliance with the minimum legal standards, improved in a few marginal points, not resulting in a system that rewards the virtuous in this regard; on the contrary, reading the specifications, one notices paradoxes, such as in the case

<sup>&</sup>lt;sup>23</sup> <u>https://news.airbnb.com/it/vacanze-pet-friendly-su-airbnb-italia-al-primo-posto-in-europa/</u> (Last accessed 15th Feb 2025)

of the "Disciplinare per il benessere animale dei bovini in allevamento familiare"<sup>24</sup>, where, once certified, farms can display a quality certification of animal welfare on the label with the words "family farm with grazing" and "family farming", when in fact they are allowed to use fixed housing systems for the animals, an obvious practice completely contrary to animal welfare policies.

This confusion on the subjet, however, is also reported by the producers themselves, who find it difficult to develop animal welfare policies on the animal farm, as there are no international reference standards. This results in a low level of animal welfare on national farms, especially on large farms (Menghi, 2007).

In this context, however, there are cases of excellence in this field. Mainly these are small farms with limited production, identifiable by a strong personal interest in the welfare of their animals and active in rural realities with high levels of quality of life for operators, such as mountain areas (Spigarelli et al., 2021). These realities produce products with a high level of quality, creating the basis for hospitality companies wishing to provide animal welfare compliant products, often on the basis of local business synergies.

Therefore, within the country, many local circular economy systems based on the collaboration between the hospitality industry and the agri-food industry are developed on this basis, also thanks to animal welfare based synergies.

# 2.3. Management Practices in Hospitality Industry

So far, the Agri-food industry and Animal Welfare have been analysed: these are fundamental sectors and themes within the hospitality industry, producing what are the raw materials on which the offer of the companies operating in the latter industry will be based.

The point of contact between the industries on the topics discussed is upstream in the hospitality industry value chain, generating for the companies that comprise it the need to develop a series of activities and managerial practices in order to correctly identify

<sup>&</sup>lt;sup>24</sup> Decreto interministeriale MASAF e Ministero Salute – 24/10/2024 – Italy

the necessary product and correctly manage the process that takes the food from the producer to the consumer, in particular its valorisation within the company's activities.

### 2.3.1. Hospitality Supply Chain

The hospitality industry is very broad and difficult to classify; it encompasses all those enterprises that produce, offer and manage services aimed at welcoming and entertaining people. This industry can be divided into three different macro-categories: Accommodation Services, Food and Beverage and Tourism; the first two represent the pillars of the hospitality industry, as the third exists as a producer of ancillary and support services to the first two (Slattery, 2002). Each category has its own peculiarities and distinct business models.

The accommodation sector produces overnight services using various facilities, which can be resorts, hotels, B&Bs, hostels, room rentals, etc. In addition to basic overnight services, each enterprise offers ancillary services that add to the consumer experience, defining the overall level of service provided, with its assigned category, and the associated value offered to the customer (Page, 2019, pp 207-230).

The food and beverage sector is concerned with an essential element in the industry, that is catering; operators in this sector may operate solely for catering purposes or they may supplement the offer of the accommodation sector. Businesses providing these services include restaurants, bars, nightclubs, pubs, catering, etc. In this sector, too, each business will differ from its competitors depending on the level of service and raw materials it decides to use; they range from high-level gourmet offers to event catering services and fast food (Davis et al., 2008, pp 1-3).

The tourism sector, on the other hand, encompasses different types of activities aimed at the management of services and production of tourism and entertainment: companies that provide ancillary services to the previous two sectors such as car rental, companies that manage intermediation services between service-producing companies and customers, both at B2B level (Tour operator) and at B2C level (Travel Agencies), cruises, theme parks (Page, 2019, pp 36-38). The three sectors perform very different but closely related activities, constantly finding points of encounter. This analysis, in line with the purpose of the thesis, will focus on the accommodation and food and beverage sector, marginally treating the tourism sector only in its interactions with the other two sectors for their development.

The business model of companies in the hospitality industry refers to all those activities through which, according to a well-defined strategy, the company manages to satisfy market and customer demand, generating value. For companies in the accommodation sector, they can decide on the quantity and quality of services they will offer their customers, thus defining the level of the structure that allows its international classification within the global market (Page, 2019, pp 207-230). The greater the services offered, the greater the level of the offer and the greater the value generated and embedded in the company.

Over the years, the vision of companies in the sector has evolved from mere service providers to experience creators. The value of the offer so derives not only from the material provision of a good or service, but above all from everything that surrounds it, such as the manner in which it is provided, the beauty, the quality of the materials used, the attention and care given to the customer, the storytelling, the location of the facility; all this increases the perceived value in the clientele, which in a directly proportional manner increases their willingness to pay higher prices, increasing the profitability of the company (Hemmington, 2007).

One of the most important activities in the creation of the business, and at the basis of the development of the strategy, is the choice of the market in which to operate, from which all the choices on the management of the business will then derive.

The market has macro-segmentations that can be summarised as (Rutherford & O'Fallon, 2007, pp 6-8):

- Luxury customers seeking the highest level of quality, care and comfort, in central locations, with a high demand for customisable services;
- Business clientele that, travelling for work, seeks mainly comfort and functionality, also with the possibility of having spaces to organise business meetings, events and conventions; this clientele requires strategic locations

at important transport connection points and near conference centres, financial areas and business centres;

- Leisure customers travelling for tourism, who seek comfort and proximity or connection to local attractions; in this category, demand is highly diversified, ranging from the demand for mass services to the presence in the facility of a wellness centre and swimming pool;
- Niche this segment includes customers interested in thematic stays, such as wine tourism or sports tourism, or with specific targets, such as families and couples.

Once the clientele has been selected, the enterprise develops its offer aimed at satisfying all the needs that that segment requires, also choosing the level on which it wants to position itself; the higher the level, the more the demand will be contained but with greater added value that will allow the achievement of greater profitability.

Another fundamental element is the choice of distribution channel. With digitisation today, it is crucial for this category of companies to choose the right channel to present themselves and sell their product (Rutherford & O'Fallon, 2007, pp 14-16). Channels can be:

- Direct channel the facility sells its product through telephone bookings, via its website or email; this method is the most profitable as it does not involve the payment of commissions;
- Tour operators the accommodation facility enters into contracts with these intermediary companies, mainly B2B, who will present the accommodation facility in their offer to other tourism intermediaries; there is the payment of commissions and, very often, allotment of rooms at the exclusive availability of the tour operator;
- Travel agencies this remains one of the systems most in use today. Travel agencies can be physical or digital shops, either as individual agencies or digital platforms, e.g. Booking.com, Expedia, etc. The establishment enters into contracts with these operators in order to enter their portfolio of offers. Commissions are paid and, very often, rooms are allotted exclusively to the platform; this system is very costly for the companies, but it represents an

almost obligatory choice given the very high level of visibility that these platforms guarantee due to their volume of users.

The companies that make up the sector can range from small family-run businesses through private companies to large international hotel chains; the latter can operate either with their own structures or through franchising.

For food and beverage companies the context is similar. In the selection of the offer, companies will have to choose whether to address a more discerning and pretentious clientele through the development of gourmet or luxury catering offers with starred establishments, or a clientele looking for informal environments with medium prices, or a mass clientele looking for the best possible price with the development of fast food offers (Davis et al., 2008, pp 179-182).

In the case of businesses that carry out both activities in a single channel, i.e. hotels that also have catering services within them, it is essential to make consistent offer choices between the two activities in order to achieve the same level of products and services that will be used by the same target customers in both activities.

Historically, the food and beverage offer only involved the distribution of the product through consumption on the premises and, marginally, the take-away of products from the premises directly from the customer. Today, the sector has received a great increase in demand thanks to the entry of digitisation, creating, through digital platforms, networks of operators for home food delivery (Chatterjee et al., 2024). Digitalisation has also greatly increased the weight of marketing within the sector, especially through the development of social media "influence" phenomena (Misra et al., 2024). In addition, for business management purposes, digitisation enables the creation of online booking systems that allow for the advance planning of customer flows, which translates into efficient supply, storage and production activities. Also in this sector, companies can take different forms, ranging from family-owned businesses, private companies or franchising groups.

The supply chain of the two industry sectors under analysis consists of a multitude of companies offering both products and services, in a wide range of categories. It is

therefore essential for companies in this industry to create a reliable network that enables them to procure raw materials and supply products and services.

In the value chain, the first actors are the suppliers; these can supply both perishable materials such as food and beverages, and products such as linen, cleaning materials, various equipment for both accommodation and catering. It is very important already at this stage to carefully choose the supplier according to one's own quality requirements, since purchases directly influence the final result of the service offered and everything must be consistent to be credible to the final customer.

In particular, the choice of food suppliers is very important, which can be either large food distributors or small local producers feeding the short supply chain discussed above. In the choice of food suppliers, it is necessary to take into account the reliability they can guarantee for the supplies required, since the occurrence of shortages of raw materials leads to the direct impossibility of supplying their offer to customers, having an impact on the company's image. Even in this case, the choice will have an impact on the service offered to the end customer and its perceived value of the offer (Davis et al., 2008, pp 371-390). The category of suppliers always includes also all those companies that provide accessory services that can be offered to customers such as transfers, tourist guides, local travel agencies for excursions and trips.

Following the procurement of all ordinary and extraordinary consumables, and the opening of channels for the provision of on-demand services, the company combines and transforms all inputs into the customer offer according to its own vision and strategy. There is the possibility to make adjustments in the offer, either by quantity of services offered or quality, by intervening on selected inputs within the supply chain.

The flow of the supply chain is developed in several phases, which are procurement, i.e. the moment of purchasing all the goods necessary for the regular performance of activities, or warehouse management, which through proper planning allows a substantial reduction in waste and reduces the risk of product shortages; the production and distribution phases, i.e. in accommodations the ordinary administration of the structure that allows for the reception of guests in the rooms and the provision of ancillary services, and in restaurants the preparation of food and its service; the last stage in the chain is the receipt of feedback, which, through the receipt of an

evaluation, allows companies to ascertain the customer's perception of the service, compare it with the service idea they intend to propose, and, in the event of objective problems, to intervene on the stages or actors in the supply chain that have generated the mismatch between the ideal and the real offer (Davis et al., 2008, pp 179-194).

Industry presents some characteristic problems that shape the strategies and forms of companies; for both sectors the main problem is dictated by the seasonality of demand, which entails the creation of peaks of activity at certain times of the year that raise the average annual attendance, alternating with periods of low activity (Ampountolas, 2024). This leads to problems in the management of both business organisation and the planning of stocks and supplies, as seasonality brings with it high levels of uncertainty and fluctuations in the repetition of historical track records, a phenomenon accentuated lately due to the sector's great dependence on trends fuelled by social networks. In business organisation, in situations where the impact of the seasonality effect is high, such as in hospitality services in mountain or seaside resorts, it leads to the need for companies to manage their staff with seasonal fixed-term employment contracts, which generates high turnover and a lack of growth in staff over time (Fernandez-Morales et al., 2016).

Another problem is dictated by the constant increase in competition (Becerra et al., 2013), due to the creation of ever new ways of carrying out activities: an example is in the accommodation sector with the exponential growth of phenomena such as room rentals and B&Bs, activities with a very streamlined and dynamic organisation, which, driven by the visibility attainable through digital platforms, put pressure on more traditional companies that are more rigid in adapting to changing trends. In the catering sector, on the other hand, the problem comes in the form of all food markets saturation (Wood & McCarthy, 2013), as leading companies to the need to diversify and change their offerings frequently in order to remain in the market.

Finally, there is the problem of the general increase in the cost of all inputs, starting with the cost of purchasing raw materials, energy and personnel, which puts pressure on the financial structures of companies with serious impacts on business margins. This translates into the increasing focus on reducing waste, especially food waste, which generates efficiency in the use of resources and creates impacts on cost

reduction and increased sustainability, which we will discuss in more detail below (Iddawala et al., 2024; Renfors, 2024). Also in this industry, threats can be turned into opportunities for companies.

In response to the increasing dependence on trends, companies invest heavily in digitisation and marketing, so as to achieve greater visibility (Cheah et al., 2024); this gives them the chance to be first movers and trendsetters, so as to be able to capture the value generated by the competitive advantage in the market in that area. This automatically leads to carefully and dynamically studying the context and investing in innovation to enable them to anticipate what the next trends will be and not be left out of the market.

Also in the reduction of costs, the study and planning of activities in the medium and long term, accompanied by the constant study of the context and the adaptation to the various market trends in the short term, allow for more efficient financial management; through investments aimed at reducing waste, one also obtains the possibility of creating more sustainable structures, which allow to generate additional value in companies' offer, which is also a source of diversification (Renfors, 2024; Talukder et al., 2024).

The main task of sector managers is therefore to be able to read and anticipate the context in the development of strategy, to be able to correctly manage the flow of goods and services, and to be able to guide their transformation into offerings, to be able to make correct choices consistent with the company's objective vision, and to be able to adapt to the continuous and rapid changes in the context and in the industry.

### 2.3.2. Financial Management

As in any business, the sustainability of the financial management of companies in the hotel and restaurant sector is crucial to their survival. The main peculiarity of the companies operating in the two sectors under analysis, especially for the accommodation sector, is their cost structure; in fact, they are companies characterised by a high need for start-up capital, which generates considerable depreciation costs classified as fixed; to these are added further fixed costs such as personnel, utilities

and ordinary maintenance, making the company structures very rigid in the performance of their activities and in the eventual adjustment of company strategies and missions (Rutherford & O'Fallon, 2007, pp 377-387).

This leads to the need for surgical precision in the management of variable costs and in the development of one's strategies and offers, which is not always easy, given the pressure resulting from the constant increase in costs in general, and raw materials and products in particular, which form the main sources of variable costs.

Sources of capital can be either private investors, also backed by debt capital from financing, or investment funds, including international ones. There is a recent trend for the latter to enter the industry<sup>25</sup>, as their availability of capital allows them to cover the large demand for start-up capital, given their size, while greatly reducing business risks through group diversification with simultaneous investments in several activities and sectors. A further business development model in the sector is the franchising, which allows the company to exploit the franchisor's brand, consultancy and image against payment of a fixed cost (Davis et al., 2008, pp 123-132).

The cost structure, as already mentioned, is divided into fixed and variable costs; the fixed cost part is very large and in this sector exceeds that of variable costs, bringing rigidity. Fixed costs include depreciation, rent and franchise fees, personnel costs, etc. Variable costs, on the other hand, are determined by the purchase of the raw materials and products needed to carry out the activities and produce the offer. Also included are services offered by external suppliers, such as laundry, security or cleaning services, commissions to be paid to intermediaries of the various sales channels and marketing activities.

The sources of diversification of one's offer have impacts on both fixed and variable costs; examples of the impact on fixed costs can be the quantity of customers one wants to serve, the choice of the level of facility set-up, the quantity of personnel to be employed in carrying out the activities and the level of qualification, the location of the activity; examples of the impact on variable costs are the quantity and quality of ancillary services one wants to offer, the quality in the choice of food raw materials,

<sup>&</sup>lt;sup>25</sup> <u>https://www.investorschronicle.co.uk/content/8011bc49-8809-58c3-bf5c-3b821bf71dff</u> (Last accessed 15th Feb 2025)

the choice of specific sales channels according to the target customers, the choice of marketing channels.

The revenue structure, however, is different between the two sectors. For the hotel sector, the main source of revenue is derived from stay revenues. In this area, establishments adopt different pricing policies; these can be either fixed rates on a seasonal basis or dynamic revenue management systems to generate a real time price based on demand and the level of occupancy of the establishment. These types of receipts serve to cover above all the fixed costs (Rutherford & O'Fallon, 2007, pp 377-387). Then there are the receipts from ancillary services offered to customers, such as breakfast and catering, wellness centres, laundry services, excursions, etc. These activities are the ones with the highest added value and have a lot of weight in the final profitability of the business. Obviously, the higher the level of the facility, the higher the ancillary revenues will be.

For the food and beverage sector, on the other hand, the main source of revenue comes from the sale of its food to customers. Offers can be either à la carte or with fixed price menus or tasting menus. The beverages offered, especially alcoholic beverages, have a high marginality and allow an improvement in the profitability of companies (Davis et al., 2008, pp 123-132).

There are also financial indicators to summarise the health of companies in the industry. The main ones are, for the accommodation sector, the Average Daily Rate (ADR), the Revenue per Available Room (RevPAR) and the Occupancy Rate; for food and beverage they are the Food Cost Percentage, the Labor Cost Percentage and the Profit Margin (Rutherford & O'Fallon, 2007, pp 245-246; 305-308).

Having analysed the cost and revenue structures, the importance of the manager's ability to keep the complex, multi-mension system in balance is evident. The main element is to create an efficient cash flow system that allows a constant liquidity necessary for the smooth running of each activity. It will then be crucial to develop strategies to balance basic activities to cover fixed costs with more marginalised activities to achieve a better profitability of the company.

Strategies aimed at diversification are important for the development of one's own offer, and each choice entails impacts on both fixed and variable costs, but at the same time also on revenues; in fact, the more diversified the offer is, the more the target customers, if the offer is consistent to satisfy them, will be willing to pay for the proposed service, allowing them to repay the greater risk taken by choosing more expensive inputs (Yeh et al., 2012).

Warehouse and stock management plays a key role in the financial structure, as it allows, firstly, to reduce wastage in supplies and costs to be incurred for repurchases (Talukder et al., 2024), and secondly, to make cash flows more efficient by disbursing money only when it is really needed.

Finally, it is essential to study the company in depth at every level of its business in order to enable efficiency and waste reduction. Waste leads to wastage of resources, time and money, which on an overall level generates serious impacts on profitability and sustainability (Renfors, 2024), which will be discussed in the next section.

# 2.3.3. Sustainability and Ethics

As already seen in this chapter, the concept of sustainability is developed in three distinct areas, which are environment, social and governance. The principles of sustainability are closely related to what CSR stands for, i.e. those principles of ethics and responsibility that every company should adopt in carrying out its activities, taking into consideration its impact and not focusing exclusively on the ultimate goal of profit at the cost of sacrificing well-being in every sphere it comes into contact with.

In recent years, attention to these issues has been steadily increasing and the integration of these principles within their policies is becoming not only an ethical duty, but also a necessity for companies to respond to market and regulatory demands, which are also beginning to set minimum standards.

Within the hospitality industry there are several areas where companies can take action to improve their sustainability impact, especially to respond to market request (Sampaio et al., 2024). On environmental aspect, the hospitality sector is one of the largest consumers of natural resources and a major producer of waste (Bux & Amicarelli, 2023). This entails the need for companies to modify their activities and processes in order to reduce both the use of natural resources, such as mainly energy and water, and the production of waste, by developing strategies with the aim of reducing waste and especially reusing food waste in order to generate impact through circular economy bases, with the associated set of benefits, including financial (Talukder et al., 2024).

The interventions required to achieve the above-mentioned results are expressed in both investments in structures and in the modification of consumable products in use, including a revision of procurement processes that reduce the environmental impact generated by transport. Examples of structural investments in this area can be the complete replacement of lighting systems from traditional to LED, which generates a drastic reduction in energy consumption; the replacement of heating systems from fuel or gas boilers to heat pump boilers, thus eliminating the use of polluting fuels in favour of electricity; the installation of photovoltaic panels, which allows both the production of green electricity that can be used for one's own activities and the ecological heating of domestic water. Structural measures are also necessary to save water, such as the installation of flow reducers, which allow a significant reduction in water consumed per use, or the purchase of modern water-efficient appliances such as dishwashers and washing machines (Pereira et al., 2021).

The company in this area, as already mentioned, plays a role of social responsibility towards its customers, helping them in their education on the subject and asking for their cooperation; an example is raising awareness on water saving by asking the customer to reduce the daily change of towels, which involves a large use of water resources and environmental impact due to the use of soaps.

Simpler interventions in their application are those related to the management of consumables used in daily activities. Through careful analysis, companies can identify all the products in use and supplied to customers, even disposable ones, where it is possible to take action to reduce their environmental impact, such as eliminating disposable soaps and replacing them with refillable dispensers, so as to reduce the amount of waste and plastic; looking for products with recyclable packaging and

replacing all plastic beverage bottles with glass, leading to a reduction in plastic use and disposal; using material derived from recycled sources and soaps derived from vegetable sources, so as to reduce their direct environmental impact.

Within the catering industry, it is possible to activate many practices aimed at implementing one's own sustainability: the main one is the conscious choice of raw materials to be used in the creation of one's own offer, in particular the choice of one's own suppliers and producers; this awareness consists of deciding what one's own impact objectives are in the conduct of one's own business and therefore choosing products that are consistent with this vision. For example, if the choice falls on small local producers, the distance in transport will be reduced with an associated reduction in pollution produced; furthermore, a circular economy system that generates wellbeing and social impact in the community in which one operates will be encouraged. Always choosing consciously, one could decide not to buy products out of season, considering that they generate a great negative environmental impact due to the huge amounts of energy consumed in feeding the greenhouse temperature maintenance systems, not to mention the higher cost of raw materials.

Another important element for the sustainability of the sector can be found in the food and beverage: food waste management (Renfors, 2024). Companies that are virtuous in this regard develop their offer in order to reduce them to a minimum, in some cases implementing their menus with dished prepared with parts of food that would otherwise be food scraps, to produce completely zero waste in the kitchen. This is part of a circular management of their raw materials, which also has a non-negligible impact on the financial aspect of the business.

Evaluated as a whole, it is interesting to observe how integrating all the abovementioned measures into one's own business processes brings advantages on several systemic levels, starting with the company itself (Kruesi & Remy, 2024); in fact, less consumption and less waste immediately generate economic advantage (Talukder et al., 2024); moreover, it represents the company's assumption of responsibility and respect towards the context and environment in which it operates.

Also in the social sphere, companies in the two sectors can implement their own policies, for example by improving the working conditions of their employees and

adopting welfare measures that allow better management of the work-life balance, or organising initiatives and events for the local community, or, as a further impact to the environmental one already mentioned above, choosing local suppliers and producers, generating a virtuous system of circular economy (Pereira et al., 2021).

Furthermore, companies perform an educational function towards customers in the field of sustainability through their behavioural choices, and this allows them to be a further vehicle of sustainability if the customer adopts those practices in his or her private life (Page, 2019, pp 234-239).

In the area of governance, it is important that conscious and responsible management choices are made to develop the life of the company over time, through long-term investments and responsible financial management.

All this should be applied within each company, adapting it to the way it conducts its business, so as to allow it to survive in the long term, and above all, to constantly generate competitive advantage over the market (Prud'homme & Raymond, 2013)

As already mentioned, these practices make it possible to generate impact in the conduct of one's business without creating any shortcomings in the proposed offer; on the contrary, once one's policies have been implemented, added value is produced by simply carrying out ordinary business activities. Furthermore, from a market perspective, there is an ever-increasing demand for sustainability complaint offerings; although sustainability was once a niche market value, today it is the new standard (Seo et al., 2024).

Managers, therefore, have a duty and responsibility to incorporate all these characteristics into the development of business activities and practices, so as to create an offer that is ethical, sustainable and comprehensive, capable of meeting the challenges of a highly competitive and dynamic environment that is constantly evolving.

# **CHAPTER 3 – Methodology**

This chapter analyses in detail the research methods used in conducting the study. As can be seen from the literature review, the context under study is highly diverse and multidimensional, which impacted on the choice of research tools required in order to answer the research question comprehensively and rigorously.

### 3.1.Research Setting

The city of Rimini represents one of the centres that have made the history of Italian national tourism. Since the beginning of the 20th century, Rimini has developed as the beating heart of seaside tourism, thanks to its privileged natural position with a long, wide and sandy beach, and thanks to the great skills of the area's entrepreneurial fabric, becoming a school case of development in its sector. Hospitality businesses have always been able to read the context and adapt promptly, in some cases being trendsetters themselves thanks to constant innovation, becoming a leading centre in the sector. An example of this are the continuous transformations that have taken place over the years, going from being a destination where mass tourism was born in the country between the two wars, to the subsequent transformation into a centre of youth entertainment with the economic boom following the Second World War, up to the latest paradigm shift that has taken place from the 2000s to the present day, which is shifting activities towards diversification and the search for experiential and relational tourism (Battilani, 2015).

This thesis is developed through the study of the managerial practices adopted by the company Sovrana Hotel & Re Aqva SPA, an accommodation facility that is part of the hospitality industry, operating in Italy, specifically in Rimini, a city in the Emilia-Romagna region, therefore within the framework previously set out. The hotel was founded in 1950, today has a four-star rating and is family-run. It has 51 rooms divided into different types according to size and level of service. There is a restaurant service

for breakfast only. The hotel also has a SPA and wellness centre, where it is also possible to book personalised treatments and services.

In line with the history of its context, the hotel, led by its owner Dr Giulia Azzurri, is leading a major project to implement animal welfare practices within the hospitality industry, specifically for the accommodation and food and beverage sectors. The company is a first mover in this field in Italy, as it is the first to have adopted this type of policy within its company and to have named its activity as "animal welfare structure".

Dr Azzurri, after lengthy studies on animal welfare theories, modified her hotel's policies to ensure that certain minimum animal welfare standards are respected in all internal and external value chains, especially in the area of raw material selection for the catering service, in her case breakfast. He then created an informal association comprising hospitality industry businesses, specifically the accommodation and food and beverage sector, in Italy that followed his philosophy by also implementing animal welfare policies in their catering activities, thus acquiring the association's "animal welfare facility" certification. Given the high complexity of the company and its context under analysis, careful study design was essential.

# 3.2. Research Design

The study focuses on the analysis of managerial practices, with developments impacting the entire supply chain of two distinct industries and all their points of intersection; therefore, it was necessary to create a broad and multidimensional vision that would allow for a correct and comprehensive contextualisation of the analysis itself.

The methodology to be employed in this study was determined by an analysis of the extant literature, which resulted in the selection of a mixed (quali-quanti) method approach. This method utilises several different investigative tools among them, allowing for more in-depth analysis and creating an inclusive view of all the nuances required for a full understanding of a multidisciplinary and many-sided context such as business environment (Grant et al., 2023; Waller & Fawcett, 2012).

The study, therefore, was developed through the use of two instruments: questionnaire and interview. In the quantitative study, the questionnaire instrument was chosen in order to allow the creation of a consumer overview that could support the analysis of the context within which the manager has to make decisions. In the qualitative study, the use of the interview instrument, was chosen because it represents one of the best methods of analysis in the field of management (Balbastre-Benavent et al., 2024), since through dialogue the interviewer is able to take in information and nuances of information at a higher level than through more rigid methods, thus allowing for a better investigation of the practices adopted in specific contexts, the reasons that led to the choices, and in-depth studies on cause-effect relations.

In view of the novelty of the subject under analysis, it was essential to use dialogue with the people on the front line as an investigative tool; this made it possible to receive information on the theories and policies that are being developed and adopted in practice, the adjustments made over time, highlighting how this is a theoretical subject that is not yet perfectly codified and above all lacks any standards, making the figure of the manager essential in the moments of choice in order to achieve the result.

### 3.3. Questionnaire – Data Collection and Analysis

The objective of the quantitative research here is to provide, through a descriptive statistics analysis and hypothesis tests, an insight into the levels of knowledge, interest and consumption preferences in the subject under analysis of a random sample of potential customers, including the study of possible correlations between them, which assists the analysis of management practices in the qualitative part of the research.

The Simple Random Sampling method (Noor et al., 2022) was used to choose the population to be surveyed, in order to eliminate the risk of bias in the selection of sample subjects.

A questionnaire created on the Qualtrics platform was submitted to the sample. The questionnaire was structured with both closed-ended and linear numeric scale questions (values from 0 to 10), in order to allow as much freedom of expression as possible to the sample.

The questionnaire was administered to the Italian population, so it was written exclusively in Italian, in order to be consistent with the sample and allow for maximum comprehension of the questions and the relative reliability of the final result. In the development of the questionnaire, great care was taken in the drafting of each question, in the selection of the correct type of scale to be used on each question and in the consistency of the information sought with respect to the final objective. The questionnaire was written and applied in Italian, and translated here into English, and subdivided into six macro-categories, each aimed at finding information referring to that category, specifically:

Welcome Page

This initial page presented the study and its objective, described the questionnaire and its structure, stated the estimated time of completion and the anonymity of the data collected;

- *Demographics* This section collected demographic information such as age, gender and educational qualification;
- Knowledge and Interest in the Subject Under Analysis
  In this section, an analysis was carried out of the knowledge of the topics covered in this study and the detection of the relative self-perceived intensity of the respondent; examples of questions in this section are How familiar are you with the topic of sustainability and "ESG" Environmental, social and governance?
  How interested are you in the topic of animal welfare?
- Eating Habits

In this section, the respondent's consumption habits with respect to specified food categories were surveyed; examples of questions in this section are

How much meat do you consume per week? How many eggs do you consume per week?

### Consumer Behaviour Analysis

This section investigated the perceptions regarding the quality of food products of the respondents, and the detection of the main characteristic that induces consumption; examples of questions in this section are *What level of quality do you perceive in an animal welfare product How important is the quality level of a food in your choice of purchase or consumption?* 

Vehicles of Influence in Consumer Choice

This section investigated the extent to which the presence and use of animal welfare products in the offers of hospitality companies acts as an incentive and a condition of consumption, and to detect the propensity to pay a higher price for animal welfare food than for conventional products; examples of questions in this section are

You have to choose a restaurant to eat in: how much does the use of animal welfare raw materials on the menu influence your choice?

How much more are you willing to pay to consume animal welfare food than the same standard food?

The aim of the questionnaire was to study the existence of framework between the variables (see Figure 4) by testing the following hypothesis:

- *Hypothesis 1: Interest in animal welfare impact on knowledge of the topic;*
- *Hypothesis 2: Knowledge of animal welfare impact on interest in animal welfare;*
- *Hypothesis 3: Interest in animal welfare impact on the willingness to pay premium prices for animal welfare products;*
- *Hypothesis 4: Interest in animal welfare influence choosing the shop where to purchase food;*
- Hypothesis 5: Knowledge of animal welfare influence the choice of a restaurant;
- Hypothesis 6: The willingness to pay for animal welfare products affects the choice of a hotel.

Figure 4 – Framework of the variables' analysed



Source: Author's work

Once the collection of observations was completed, data downloading and data cleaning was carried out via Excel databases. No anomalies occurred, as all respondents entered an answer to each question, so each variable reported 225 observations.

The collected data were analysed using the Qualtrics platform and SPSS software. The analysis was carried out first using descriptive statistical techniques (Vetter, 2017), such as mean and standard deviation, to provide a complete picture of the sample with respect to the animal welfare topic; then, Harman's test was carried out to check the existence of common method biases (Podsakoff et al., 2003). Finally, all hypothesis tests were performed using the linear regression tool (Khushbu & Suniti, 2018). No variables conversion procedure was necessary as the variables used for testing were all numerical.

At the end of each linear regression, tests were carried out to verify the validity of the results; in detail, the following were investigated: multicollinearity, normality of residuals, linearity and homoscedasticity. Graphs were produced, which will be described and commented on in the next chapter (pp. 73-104).

### 3.4. Interviews – Data Collection and Analysis

The qualitative research was developed by conducting nine interviews of operators in the hospitality and food production sectors, including an association specialised in animal welfare and its implementation in the two industries.

The data case company, the Sovrana Hotel, was interviewed first, then its value chain was identified and companies were selected, both internally and externally but with active policies or in implementation in the subject under discussion; companies has been divided into two categories, i.e. companies from the hospitality industry, representing demand in the study, and companies from the agri-food industry, representing supply in the study. Finally, a leading animal welfare association was interviewed, whose activity lies in building bridges between market-based industries that can have an impact in this area, so as to provide an external third-party view and oversight of the actors involved in animal welfare practices. The decision to use this division allowed a multilateral study of the managerial practices adopted by the market in the field of animal welfare, finding the meeting points and analysing their interactions and providing a codification of them.

The companies interviewed are shown in detail in (Table 1) below; for privacy reasons, names were blacked out and replaced with fictitious names belonging to the spice world, with the exception of the company Sovrana Hotel, the subject of the data case. The interviews were all conducted in Italian in order to allow greater expressive naturalness to the interviewees and guarantee the maximum authenticity of the information received. All interviews, which lasted an average of 60 minutes each, were, following express consent, recorded; transcriptions and full translation into English were then made for data analysis purposes.

Name	Original Language	Place of Business	Type of Business
Sovrana Hotel	Italian	Rimini, Italy	Hotel
Cinnamon	Italian	Terracina, Italy	Hotel
Vanilla	Italian	Verucchio, Italy	Hotel
Pepper	Italian	Jesolo, Italy	Restaurant
Saffron	Italian	Roma, Italy	Animal Farmer Association
Curry	Italian	Motta di Livenza, Italy	Animal Farmer and Producer
Paprika	Italian	Tavernerio, Italy	Animal Farmer and Producer
Oregano	Italian	Jesolo, Italy	Stockist
Parsley	Italian	Milano, Italy	Animal Welfare Association

Table 1 – List Companies Interviewed

A semi-structured template was used in the preparation of the interviews (McIntosh & Morse, 2015), so as to provide the interviewees with a degree of freedom that allowed them to express themselves extensively and for the author to capture information on nuances that might have been lost with the use of a rigid template. The interview scheme involved a comprehensive investigation of each company, starting from the analysis of the strategic vision to the operational processes; examples of questions put to the interviewees are:

- What is the vision and philosophy of your company?
- What are your ways of developing corporate strategy?
- What operational practices do you put in place in order to implement animal welfare in your facilities?
- What are the financial impacts of implementing animal welfare in your processes and facilities?
- What is your relationship with the customer regarding your policies?
- Are there any critical issues you see with regard to animal welfare practices or implementation within your policies?

As already mentioned, the aim of the thesis is to investigate animal welfare compliant managerial practices and the processes for their implementation within the hospitality industry; this leads to the need to investigate in a VUCA (Volatile, Uncertain, Complex and Ambiguous) context which is very broad and difficult to interpret, especially the cause-effect relationships; for this reason the Gioia Method (Magnani & Gioia, 2023)

was selected for the data analysis. The model makes it possible to encode information within a complex system through several levels of data coding, starting from a first level of analysis based on the identification of periods, key words and ideas expressed by the respondents, which are then aggregated into higher categories that include them. This method allowed a perfect analysis of all the processes, above all highlighting the relationships and interconnections between the different processes and actors in the market, making it possible to define a very precise picture of the impacts both at network level and at the level of the individual company.

From the development of the analysis, twenty-four first level codes were identified, which were aggregated into five second level codes, namely *Corporate Philosophy*, *Hospitality Managerial Practices*, *Consumer Relationship*, *Hospitality Animal Welfare Association* and *Producers*. Below is a sample of the analysis carried out (Table 2) where each of the first level codes are highlighted. The results of the qualitative research are reported in the next chapter (pp. 105-116).

#### Table 2 – Codes and Sub-Codes

For us this choice is really a choice of field even before being an entrepreneurial choice, it is an ethical question, then it is a bit strange to say as an entrepreneur, but at least for me it is so (Cinnamon)	Vision	
We also have a responsibility, in my opinion, to create culture. This project should also help to create culture and at least make as many people as possible aware of what the difference is between ethical and conventional farming, so if you explain it to them, maybe you could at least steer them in that direction, then of course everyone is free to make their own choices, but maybe someone doesn't know and from tomorrow they might just wonder why I choose this product. (Cinnamon)	Corporate Social Responsibility	Corporate Philosophy
At the moment ( <i>the choice of adopting animal welfare</i> ) it is 80% ethical, 20% commercial activity with, however, the needle of the scales shifting in the direction of the ever-increasing demand, So this 80-20 I imagine over a couple of years could become 65-35 until sooner or later it will have equal weight. Right now it is more our sensitivity than what is being requested, so the fact remains of a constant, that is, the appreciation on the part of those who find this type of activity carried out within the structure. (Vanilla)	Ethics	

We've come to practically plan our purchases almost four months in advance, saying, we need tot pork cups, tot salami parts tot bacon parts and so on, so it's become a planning job almost. Also because, let's face it, these are products that from the moment we buy all the processing and ageing, they take us 4-5-6 months until the moment they are served and ready. So it is quite a long programming job. (Vanila)	Strategy Development	
So it's a whole supply chain, banally among all the products we make, we, for example, even as far as flours are concerned, we buy flours from ancient grains that are indigenous to this valley and we use them for all the fresh pasta and bread we produce in-house; So we make all the bread with sourdough, with flour from this valley, so we take care to have a whole production chain, which then in reality all these companies that are within our territory, we have often found that they work in synergy with each other, because those who supply us with flour then tell us that part of their cultivation product is then given for animal feed to other companies that are in turn our suppliers. So it is let's say a micro circular economy in the valley that we realised works well, here. (Vanilla)	Raw Material Selection	
The thing to start doing here is to ask the question, where do the products I am buying come from, then, identify, select a range of suppliers based on the characteristics these suppliers are able to offer and the knowledge they have of the farms, the products they sell. (Parsley)	Animal Welfare	Hospitality Managerial Practices
To give you an example, all the tablecloths in the restaurant room, and so I don't know, the tablecloth, has been replaced by a plexiglass table that is renewable every few years, when necessary you have it polished, it lasts a lifetime, when it has to be disposed of the plexiglass is completely recyclable and so we have taken out all the use of the tablecloths and napkins and things like that, paper and toilet paper and whatnot is all from recycled paper, so there's no fabric, practically no fabric that can deteriorate, be thrown away or anything like that. (Sovrana Hotel)	Sustainability	-
(The investment costs to implement animal welfare practices in the facility) were entirely covered by the first year of production of this Animal Welfare breakfast, in the sense that the main tour operators with whom I work accepted it, agreeing to pay a higher price because there was this thing, also because they wanted the rooms at the Sovrana and I told them, if you want the rooms at the Sovrana pay the 10% increase I make every year plus $\in$ 1,50 for new breakfasts; they wanted them and paid it. (Sovrana Hotel)	Financial	
In my case, I needed a supplier of eggs, because when we are full we use 300 eggs for breakfast, so we needed a supplier of eggs and this supplier had to be like the other suppliers, an industrial supplier, i.e. an intensive farm. Because I need 300 eggs a day, I can't go to Mrs Peppa who has 20 chickens makes 20 eggs a day. (Sovrana Hotel)	Criticality Management	

We try to make the customer understand ( <i>the animal welfare quality</i> ) and once the customer is made aware of the origin of the product he has a different approach, he appreciates () in our company it's like that, ( <i>customers</i> ) prefer that it costs something more because they get something more. (Pepper)	Transparent Raw Material Information	
There's not a great culture on the subject, but since they realise that we have both the hotel and the restaurant, we have a mix of customers who are somewhat tied to the area, so customers only from the restaurant who are here in the vicinity, as well as customers who come directly from the hotel, and more and more frequently we have guests who then ask us once they know what they have tasted, tasted the products and liked, very often we are asked about the sale of the products themselves, so we are asked to buy the cured meats because we produce them ourselves, using the meats we buy. (Vanilla)	the hotel and the restaurant, we have a mix of customers omewhat tied to the area, so customers only from the twho are here in the vicinity, as well as customers who come om the hotel, and more and more frequently we have guests ask us once they know what they have tasted, tasted the and liked, very often we are asked about the sale of the themselves, so we are asked to buy the cured meats because ce them ourselves, using the meats we buy. (Vanilla)	
The biggest difficulty is to make the guest aware of all these good practices and of the fact that there is the possibility of buying products that are "different" from the conventional product that we always find in the large-scale retail trade. (Vanilla)	Criticality	
So the problem was to find suppliers who were big but who had a sense of responsibility, for two reasons, the first because I need 300 eggs for breakfast, and the second because I thought that if I subsidised the work of industrial activities, i.e. intensive farming, animal welfare would be on more animals because it's not a question of having 20 free chickens in the meadow, it's a question of saying to Amar or Iga Meat or other suppliers, look, we are a group of 20 hotels, we have a million euro a year to spend on food products, do you want this million? Then if you want it I want the chickens on the ground, the pigs not mutilated, and if you don't give it to me I'll go to Fumagalli, I'll go to the Piva brothers, I'll go to someone else. (Sovrana Hotel)	Mission	
Not being regulated as a body, there is no body that directly controls these suppliers. We choose suppliers, we compare and see if they meet requirements (Cinnamon)	Organisational structure	
Those who joined in various ways, therefore, buying all three products from the suppliers I chose or even from just one, were able to join the project at a different level, so from basic to Premium, I don't know what name I gave, but there are three steps because there are three suppliers, so depending on how much they joined and how much they invested in it, I gave a different reward. (Sovrana Hotel)	in various ways, therefore, buying all three products I chose or even from just one, were able to join the nt level, so from basic to Premium, I don't know , but there are three steps because there are three nding on how much they joined and how much they ve a different reward. (Sovrana Hotel)	
As far as I am concerned, in the project I have, let's say, the authorisation to use the logo the one that identifies the pigs and the one that identifies the eggs because the egg company, for example, was suggested to me by Giulia. I give this practical example, the supplier is in Emilia-Romagna and I am in Lazio, but I use that supplier there because it has the requirements to be recommended in the association. (Cinnamon)	Operation	
There is not a purchasing structure, we still remain all independent. Obviously we help each other out by pointing out suppliers that are absolutely compatible with the project, and this is also because it becomes a bit complicated to make a purchasing chain or a consortium. (Cinnamon)	Supplier Selection Process	

Because they certainly do a lot of hard work ( <i>small local farmers</i> ), but there is no return, perhaps economically, so they are often motivated more by passion than by the goal of profit, and perhaps they have no employees, they are family-run businesses or they have just one collaborator, they are small businesses. (Vanilla)	Vision	
Much of the supply is on demand ( <i>not fixed supply</i> ). And our planning is mainly based on direct sales and then a small percentage to be calculated for these activities. But we don't have the problem of an intensive farmer who has to deliver by a certain day because the meat has to be slaughtered. We do a different type of livestock farming, if we don't deliver today, next week or the week after is fine; so, I can easily manage with the timing () We try to guarantee a constant supply, but if it were to be lacking there would be no problem, ( <i>our</i> <i>customers</i> ) are willing to wait. (Paprika)	Production Strategies	
Whenever we take a livestock system there are two macro areas, the so- called inputs, i.e. the structural characteristics that define the so-called animal welfare potential and the outcomes, i.e. with structural elements, we can understand this as the ventilation system, the type of feed that is given, whether or not there are cages etc. etc. And then the way the animal responds to these conditions. So I can also have the best possible husbandry system, but if I don't have proper management then maybe the animal has injuries anyway because the floor is uncomfortable. So in this perspective to be able to talk about animal welfare we have to take both things into account, so both what is the structure and what is the outcome of the animal. (Parsley)	Animal Farming Process	
But here when we talk about animal welfare, I think it is a quality aspect, that is, product quality is not just the taste of the product or the goodness of the product, product quality is more and more everything around it. Starting from how the animal is raised, to the sustainability aspects. I mean, there are so many variables that represent the quality of a product today, so to say that quality is only the product itself is not true. Quality is also the way the product is made, and this is where ethical farming comes in. (Curry)	Quality Elements	Producers
Recently, the Ministry of Agriculture has created a system called SQNBA ( <i>national quality system animal welfare</i> ) that has a whole set of regulations with minimum tresholds for compliance and access to this type of instrumentation also based on Classyfarm. So there are already instruments that have obviously, as you can imagine tresholds or limits that are absolutely species-specific, herd-specific, production system-specific, production area-specific. So there is no level, but there are different criteria. (Saffron)	Animal Welfare Certification	
Our products, on average, compared to the market, the extra cost is 20- 30% more. On a tray we are talking about cents, 20, 30, 40 cents, that I happily spend more, the same applies to the other type of chicken, the seasonal type, you cannot find it on the market because they raise the same type of chicken in 70-90 days at the most while we raise it in 120- 150 days and therefore it costs even more, but people are willing to pay for it. (Paprika)	Financial	
There is a lot of organic stuff out there, it may be that it tastes better, but unfortunately people like to see beautiful things, and organic stuff is most often badly made and in the end costs more. (Oregano)	Matching Supply to Demand	
## **CHAPTER 4 – Findings**

This chapter first illustrate the results of the questionnaire analysis, with the presentation of the graphs and figures resulting from the descriptive statistics analysis of the sample responding to the questionnaire submitted, followed by the results of Harman's test and hypothesis tests reported in chapter 3 (pp. 63-67). The second part presents the results of the analysis of the interviews as reported in the previous chapter (pp. 67-72).

### 4.1. Questionnaire

Our aim here is to investigate the levels of knowledge, interest and consumption preferences in the subject under analysis of a random sample of potential customers, and to investigate the existence of a framework between the variables, to assists the analysis of management practices in the qualitative part of the research.

Below are the results of the research on the analysed sample, exposed following the macro-categories that composed the questionnaire reported in the methodology, followed by the results of Harman's test and hypothesis tests reported in chapter 3 (pp. 63-67).

### 4.1.1. Demographics

The sample consisted of 225, mainly *female* (58%) (see Figure 5).

I highlight that, I included the answers "Non-Binary/Third Gender" and "I prefer not to answer" however none chose.

#### Figure 5 – Gender

Sample Size	Number of Distinct Categories		
225	2		
		Count	Per Cent
Male		95	42
Male Female		130	42 57

Source: Author's work

The (Figure 6) shows the ages of the sample divided into ranges.

More than half of the sample (58%) is represented in the age groups of 50 to 60 years (31%) and 30 to 40 years (27%).

Figure 6 – Age

Sample Size	Number of Distinc	t Categories						
225		6						
							Count	Per
Less than 20 y	/ears old							1
20-30							3	5
30-40							6	1
40-50			,				2	6
50-60							7	0
More than 60	years old						3	2
Total	0	. 0%	10.0%	20.0%	30.0%	40.0%	22	.5

Source: Author's work

The (Figure 7) presents the level of education of the sample under analysis; the level of education, *Master of science* (36%) and *High School Diploma* (34%) together account for more than half of the sample (70%).





### 4.1.2. Knowledge and Interest in the Subject Under Analysis

In this category, the levels of interest and knowledge of ESG (Environmental, social and governance) and Animal Welfare were investigated.

The first question asked was *Have you ever heard of sustainability and "ESG" (Environmental, social and governance)?*, with an almost perfect division of the sample on the answers *yes* (49%) and *no* (51%) (see Figure 8).

Figure 8 – Have you ever heard of sustainability and "ESG" (Environmental, social and governance)?



Source: Author's work

Next, the level of knowledge was investigated with the question *How well do you know the topic of sustainability and "ESG" (Environmental, social and governance)?*, with response options on a scale of 0 to 10. The sample turns out to have little knowledge of the subject of ESG (Environmental, social and governance) (M 3.1, SD 2.9);

moreover, the value with the highest frequency of observations is 0 (n 85) (see Figure 9).

Figure 9 – How well do you know the topic of sustainability and "ESG" (Environmental, social and governance)?



Source: Author's work

On the other hand, a different result was recorded in the question *How interested are you in sustainability and "ESG" (Environmental, social and governance)?*, where the sample showed average interest in the subject (M 6.1, SD 2.7) (see Figure 10).

Figure 10 - How interested are you in sustainability and "ESG" (Environmental, social and governance)?



This was followed by the same questions but for the Animal Welfare topic.

To the question *Have you ever heard of "animal welfare", i.e. attention to the welfare of animals in farming for food production?* the sample was overwhelmingly positive, with the majority of responses being *yes* (78%) compared to *no* (22%) (see Figure 11).

Figure 11 – Have you ever heard of "animal welfare", i.e. attention to the welfare of animals in farming for food production?





Concerning the level of knowledge on the subject, to the question *How well do you know the subject of animal welfare?* the value that attracted the most comments was 5

(n 41), in general consistent with the average level of knowledge found in the sample (M 4.4, SD 2.6). It remains evident, however, that the value  $\theta$ , corresponding to no knowledge of the subject, records the third highest level of frequency (n 36) (see Figure 12).

Figure 12 – How well do you know the subject of animal welfare?



Source: Author's work

As for the ESG (Environmental, social and governance) subject, also in this case the level of interest in Animal Welfare is relevant; in fact, to the question *How interested are you in animal welfare*? the sample answered positively (M 6.8, SD 2.3), concentrating almost all the observations in the right-hand side of the graph, with the highest frequency recorded on value 8 (n 42) (see Figure 13).



Figure 13 – How interested are you in animal welfare?

## 4.1.3. Eating Habits

This category investigated the sample's eating habits on a weekly basis concerning animal products and derivatives, specifically meat, milk and milk derivatives, and eggs.

The consumption bands proposed were, on a weekly basis, *I do not consume*, *1-2 portions*, *2-3 portions*, *3-4 portions*, *more than 4 portions*.

For meat, the highest frequency was recorded on the *1-2 portions* (n 84), with a decrease in observations as consumption increased (see Figure 14).



Sample Size	Number of Dis	stinct Categories							
225		5							
						Count	F	Per Cent	Сι
l do not consu	ne					1	4	6.2%	
- 2 portions						8	4	37.3%	
- 3 portions			F			6	8	30.2%	
- 4 portions						4	3	19.1%	
more than 4 po	ortions					1	6	7.1%	
otal		0.0% 10.0%	20.0%	30.0%	40.0%	22	5	100.0%	

In contrast, the opposite behaviour was observed for milk and dairy foods, where the highest frequency was found on the highest level of consumption of *more than 4 portions* (n 74), followed by the other bands dividing the remaining observations more or less equally between them, with the exception of the *I do not consume* which was marginal (7%) (see Figure 15).



Sample Size	Number of Dis	tinct Categ	ories						
225			5						
							Count	Per Cent	Cumu
l do not consu	ime						16	7.1%	
L - 2 portions							48	21.3%	
2 - 3 portions							45	20.0%	
3 - 4 portions			÷		-		42	18.7%	
more than 4 p	ortions						74	32.9%	
Total		0.0%	10.0%	20.0%	30.0%	40.0%	225	100.0%	

Source: Author's work

The situation is even different for eggs, where there is a large concentration of frequency on the *1-2 portions* range (60%), with the remainder of the observations decreasing as consumption increases (see Figure 16).





## 4.1.4. Consumer Behaviour Analysis

For this category, the sample was asked questions investigating their consumption behaviour, in particular perceptions of quality and preferences based on product characteristics.

For the sample, the cost factor in the choice of purchase has a medium-high value (M 6.4, SD 2). Frequencies are concentrated in the range 5 - 8, with the highest frequency reported on 8 (n 47) (see Figure 17).

Figure 17 – How important is the cost of a food item in your choice of purchase or consumption?



Source: Author's work

Quality, on the other hand, appears to be a determining characteristic in the sample's consumption choices; in fact, almost all observations are highly concentrated to the right of the graph towards the maximum value 10 (M 8.4, SD 1.4) and with the highest frequency value 8 (n 70) (see Figure 18).

Figure 18 – How important is the quality of a foodstuff in your choice of purchase or consumption?



Next, the quality perception levels of conventional and animal welfare products were asked.

The sample recorded a medium value perception for a standard product (M 5.8) with a high level of concentration (SD 1.6) on values 5 and 6, which together represent more than half of the sample (55%) (see Figure 19).



Figure 19 – How good do you perceive a standard foodstuff to be?

On the other hand, the perception of the value of animal welfare products (M 7.8) is different, moving upwards compared to standard products, while maintaining a high level of concentration (SD 1.6). In this case, the highest frequency is recorded on value  $\delta$  (n 74), which, added to the frequency of value 7, together account for more than half of the sample (57%) (see Figure 20).

Figure 20 – How good do you perceive an animal welfare-rated foodstuff to be?



Source: Author's work

### 4.1.5. Vehicles of Influence in Consumer Choice

In this category it was investigated to what extent animal welfare is a quality feature that acts as a vehicle and promoter of consumption in the sample.

A first group of questions reproduced typical situations in which the respondent had to make a selection of a company for the use of a service, and express the value of how much the presence of animal welfare products in the offer could weigh on his choice.

In the typical situation *You have to choose where to go grocery shopping: how much does the availability of animal welfare food in the shop influence your choice?*, the sample reported that the presence of animal welfare products has a medium impact on their choice (M 5.2, SD 2.5), giving a more distributed result on the value scale (see Figure 21).

Figure 21 – You have to choose where to go grocery shopping: how much does the availability of animal welfare food in the shop influence your choice?



Source: Author's work

A similar scenario is presented in the situation *You have to choose a restaurant to eat in: how much does the use of animal welfare raw materials on the menu influence your choice?*, with a slight increase in the dispersion of frequencies on the proposed scale of values (SD 2.7), but with a slight increase in the weight that the presence of animal welfare products on the menu has on the choice of a restaurant (M 5.4) (see Figure 22) compared to the previous situation.

Figure 22 – You have to choose a restaurant to eat in: how much does the use of animal welfare raw materials on the menu influence your choice?



Source: Author's work

The last proposed typical situation concerns the choice of a hotel; to the question *You have to choose a hotel to stay in: how much does the use of animal welfare raw materials in the catering and breakfast services influence your choice?*, the sample reported being on average interested in the use of animal welfare as a factor in choosing a hotel (M 4.9, SD 2.7) (see Figure 23).

Figure 23 – You have to choose a hotel to stay in: how much does the use of animal welfare raw materials in the catering and breakfast services influence your choice?



Source: Author's work

It was then asked whether it would be of interest for a hospitality establishment, such as a hotel or restaurant, to provide the choice in its offer of both animal welfare and standard proposals, and in this case the sample answered in the affirmative almost unanimously (88%), leaving only the residual part (12%) as *no* (see Figure 24).

Figure 24 – Would you like a restaurant or hotel to provide the consumer with a standard and an animal welfare choice in its offer?

Sample Size	Number of Distinct Categori	es					
225		2					
					Count	Per Cent	Cumutive
Yes				·	197	87.6%	87.6
No					28	12.4%	100.0
Total	0.0% 20.0%	40.0%	60.0%	80.0%	225	100.0%	



Finally, it has been investigated the propensity to spend more on animal welfare food than on the same conventional products, trying to quantify it with a rating on a scale from 0 to 10. Here again, it is found that the sample is on average interested in

spending more on animal welfare food (M 5.8, SD 2.3), highlighting, however, the concentration of almost two thirds of the sample (71%) on the right-hand side of the graph in the value range 5 - 8 (see Figure 25).

Figure 25 – How much more are you willing to pay to consume animal welfare food than the

Sample Size Median Standard Deviation Average Confidence Interval of Average Minimum Maximum 0 225 6 5.8 5.51 to 6.11 2.3 10 45 40 35



Source: Author's work

same standard food?

### 4.1.6. Harman's test on common method bias

Harman's test was performed to verify the possible presence of common method bias (Podsakoff et al., 2003). The first factor was shown to account for 22.74% of the total explained variance (see Figure 26). This value is less than 50%, so it is considered acceptable to exclude the possibility of a common method bias influence on the survey results.

		Tot	al Variance Expla	ained		
	Ι	nitial Eigenvalues	5	Extraction	Sums of Squared	Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.776	22.741	22.741	4.776	22.741	22.741
2	2.392	11.390	34.131	2.392	11.390	34.131
3	1.422	6.771	40.902	1.422	6.771	40.902
4	1.358	6.465	47.367	1.358	6.465	47.367
5	1.348	6.418	53.785	1.348	6.418	53.785
6	1.265	6.024	59.809	1.265	6.024	59.809
7	1.052	5.011	64.820	1.052	5.011	64.820
8	0.930	4.427	69.246			
9	0.897	4.269	73.516			
10	0.805	3.834	77.349			
11	0.746	3.552	80.901			
12	0.701	3.340	84.241			
13	0.640	3.046	87.287			
14	0.621	2.959	90.246			
15	0.560	2.665	92.911			
16	0.406	1.936	94.846			
17	0.371	1.766	96.613			
18	0.229	1.093	97.705			
19	0.199	0.947	98.652			
20	0.158	0.754	99.406			
21	0.125	0.594	100.000			
Extraction Met	hod: Principal	Component Analy	/sis.			

Figure 26 – Total variance explained in the survey results

## 4.1.7. Hypothesis Testing

Linear regressions were performed to test the hypotheses stated in the chapter 3 (pp. 63-67); this was followed by tests to verify the validity of the results.

# • *Hypothesis 1: Interest in animal welfare impact on knowledge of the topic*

To test the *Hypothesis 1*, linear regression was performed between the independent variable "How interested are you in animal welfare?" and the dependent variable "How well do you know the subject of animal welfare?". The regression model was found to be statistically significant (F=41.086, p<0.001). There was a significant positive correlation between the two variables, ( $\beta$ =0.394, p<0.001), explaining 15.6% of the variance (*R*<sup>2</sup>=0.156) (see Figure 27). It is shown that interest in animal welfare is a

predictor of knowledge in the topic, therefore the null hypothesis for *Hypothesis 1* was rejected.

	How well do you know the subject of animal welfare?
How interested are you	0.454***
in animal welfare?	(0.071)
Ν	225
β	0.394
$R^2$	0.156
F	41.086***
Standard er	rors in parentheses
*p<0.05, **p	0<0.01, ***p<0.001

Figure 27 – Linear Regression Hypothesis 1

Source: Author's work

We then proceeded to check the validity of the results. Model results report VIF value 1.0 with Tolerance 1.0, showing no multicollinearity problems (see Figure 28).

Figure 28 – Coefficients Hypothesis 1

			Coefficient	s <sup>a</sup>				
		Unstandardized	Coefficients	Standardized Coefficients			Collinearity	Statistics
Mode	1	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.258	0.509	)	2.471	0.014		
	How interested are you in animal welfare?	0.454	0.071	0.394	6.410	0.000	1.000	1.000
a. De	a. Dependent Variable: How well do you know the subject of animal welfare?							

Source: Author's work

Then, the Scatterplot of Residuals (Figure 29) and P-P Plot (Figure 30) graphics were processed, from which no problems of normality, linearity or homoscedasticity are evidenced. The model and its results therefore remain valid for the purposes of this study.





Figure 30 – P-P Plot Linear Regression Hypothesis 1



Source: Author's work

## • *Hypothesis 2: Knowledge of animal welfare impact on interest in animal welfare*

To test the *Hypothesis 2*, linear regression was performed between the independent variable "How well do you know the subject of animal welfare?" and the dependent variable "How interested are you in animal welfare?". The regression model was found to be statistically significant (F=41.086, p<0.001). There was a significant positive correlation between the two variables, ( $\beta$ =0.394, p<0.001), explaining 15.6% of the variance ( $R^2$ =0.156) (see Figure 31). It is shown that knowledge in animal welfare is a predictor of interest in the topic, therefore the null hypothesis for Hypothesis 2 was rejected.

	How interested are you in			
	animal welfare?			
How well do you know	0 3/3***			
the subject of animal	(0.052)			
welfare?	(0.053)			
Ν	225			
β	0.394			
$R^2$	0.156			
F	41.086***			
Standard en	ors in parentheses			
*p<0.05, **p<0.01, ***p<0.001				

Figure 31 – Linear Regression Hypothesis 2

Source: Author's work

We then proceeded to check the validity of the results. Model results report VIF value 1.0 with Tolerance 1.0, showing no multicollinearity problems (see Figure 32).

Figure 32 – Coefficients Hypothesis 2

			Coefficient	s <sup>a</sup>				
Model		Unstandardized Coeffici	ients	Standardized Coefficients	t	Sig.	inearity Statist	ics
		В	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.322	0.272		19.567	0.000	)	
	How well do you know the subject of	0.343	0.053	0.394	6.410	0.000	1.000	1.000
	animal welfare?							
a. Dep	endent Variable: How interested are yo	ou in animal welfare?						

Source: Author's work

Then, the Scatterplot of Residuals (Figure 33) and P-P Plot (Figure 34) graphics were processed, from which no problems of normality, linearity or homoscedasticity are

evidenced. The model and its results therefore remain valid for the purposes of this study.

Figure 33 – Scatterplot of Residuals Linear Regression Hypothesis 2



Source: Author's work

Figure 34 – P-P Plot Linear Regression Hypothesis 2



Source: Author's work

## • Hypothesis 3: Interest in animal welfare impacts on the willingness to pay premium prices for animal welfare products

To test the *Hypothesis 3*, linear regression was performed between the independent variable "How interested are you in animal welfare?" and the dependent variable "How much more are you willing to pay to consume animal welfare food than the same standard food?". The regression model was found to be statistically significant (F=44.640, p<0.001). There was a significant positive correlation between the two variables, ( $\beta$ =0.408, p<0.001), explaining 16.7% of the variance ( $R^2$ =0.167) (see Figure 35). It is shown that interest in animal welfare affects consumers' willingness to pay a premium price for animal welfare products, therefore the null hypothesis for Hypothesis 3 was rejected.

rigule 33 – Linear Regression Itypoinesis.	Figure	35 -	Linear	Regression	<i>Hypothesis</i>	3
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	How much more are you			
	willing to pay to consume			
	animal welfare food than the			
	same standard food?			
How interested are you	0.408***			
in animal welfare?	(0.061)			
N	225			
β	0.408			
$R^2$	0.167			
F	44.640***			
Standard er	rors in parentheses			
*n<0.05, **n<0.01, ***n<0.001				

Source: Author's work

We then proceeded to check the validity of the results. Model results report VIF value 1.0 with Tolerance 1.0, showing no multicollinearity problems (see Figure 36).

Figure 50 – Coefficients Hypothesis.	Figure	36 -	Coefficients	<i>Hypothesis</i>	3
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			Coefficient	s <sup>a</sup>				
Mode	l Unstanda	rdized Coeffici	ents	Standardized Coefficients	t	Sig.	inearity Statist	ics
		В	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.035	0.439	)	6.920	0.000	)	
	How interested are you in animal welfare?	0.408	0.061	0.408	6.681	0.000	1.000	1.000
a De	pendent Variable. How much more are you willin	g to nay to con	sume animal w	elfare food than the same sta	ndard food	12		

Source: Author's work

Then, the Scatterplot of Residuals (Figure 37) and P-P Plot (Figure 38) graphics were processed, from which no problems of normality, linearity or homoscedasticity are evidenced. The model and its results therefore remain valid for the purposes of this study.





Source: Author's work



Figure 38 – P-P Plot Linear Regression Hypothesis 3

Source: Author's work

# • *Hypothesis 4: Interest in animal welfare influence choosing the shop where to purchase food*

To test the *Hypothesis 4*, linear regression was performed between the independent variable "How interested are you in animal welfare?" and the dependent variable "You have to choose where to go grocery shopping: how much does the availability of animal welfare food in the shop influence your choice?". The regression model was found to be statistically significant (F=38.800, p<0.001). There was a significant positive correlation between the two variables, ( $\beta$ =0.385, p<0.001), explaining 14.8% of the variance ( $R^2$ =0.148) (see Figure 39). It is shown that interest in animal welfare influences consumers when choosing the shop where to purchase food on their availability of animal welfare products, therefore the null hypothesis for *Hypothesis 4* was rejected.

	You have to choose where to go grocery shopping: how much does the availability of animal welfare food in the shop influence your choice?
How interested are you in animal welfare?	0.422***
in animal wenale:	(0:000)
Ν	225
β	0.385
$R^2$	0.148
F	38.800***
Standard	errors in parentheses

#### Figure 39 – Linear Regression Hypothesis 4

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

Source: Author's work

We then proceeded to check the validity of the results. Model results report VIF value 1.0 with Tolerance 1.0, showing no multicollinearity problems (see Figure 40).

Figure 40 – Coefficients Hypothesis 4

	Coefficients <sup>a</sup>							
	Unstandardized Coefficients Standardized Coefficients				Collinearity	Statistics		
Mode	el	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	2.306	0.486	i	4.740	0.000		
	How interested are you in animal welfare?	0.422	0.068	0.385	6.229	0.000	1.000	1.000
a. Dependent Variable: You have to choose where to go grocery shopping: how much does the availability of animal welfare food in the shop influence your								
choic	e?							

Source: Author's work

Then, the Scatterplot of Residuals (Figure 41) and P-P Plot (Figure 42) graphics were processed, from which no problems of normality, linearity or homoscedasticity are evidenced. The model and its results therefore remain valid for the purposes of this study.





Figure 42 – P-P Plot Linear Regression Hypothesis 4



Source: Author's work

#### Hypothesis 5: Knowledge of animal welfare influences the choice • of a restaurant

To test the Hypothesis 5, linear regression was performed between the independent variable "How well do you know the subject of animal welfare?" and the dependent variable "You have to choose a restaurant to eat in: how much does the use of animal welfare raw materials on the menu influence your choice?". The regression model was found to be statistically significant (F=25.470, p<0.001). There was a significant positive correlation between the two variables, ( $\beta$ =0.320, p<0.001), explaining 10.3% of the variance ( $R^2=0.103$ ) (see Figure 43). There is evidence that greater knowledge of animal welfare influences a consumer's choice of a restaurant based on its animal welfare offerings, therefore the null hypothesis for Hypothesis 5 was rejected.

	You have to choose a
	restaurant to eat in: how much
	does the use of animal welfare
	raw materials on the menu
	influence your choice?
How well do you know	0.323***
the subject of animal	(0.064)
welfare?	
Ν	225
β	0.320
$R^2$	0.103
F	25.470***
Standard e	rrors in parentheses
	nors in parentneses

Figure 43 – Linear Regression Hypothesis 5

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

Source: Author's work

We then proceeded to check the validity of the results. Model results report VIF value 1.0 with Tolerance 1.0, showing no multicollinearity problems (see Figure 44).

#### Figure 44 – Coefficients Hypothesis 5

	Coefficients <sup>a</sup>							
	Unstandardized Coefficients Standardized Coefficients					Collinearity	Statistics	
Mode	el	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	3.966	0.326	i	12.168	0.000		
	How well do you know the subject of	0.323	0.064	0.320	5.047	0.000	1.000	1.000
	animal welfare?							
a De	a Dependent Variable. You have to choose a restaurant to eat in how much does the use of animal welfare raw materials on the menu influence your choice?							

Source: Author's work

Then, the Scatterplot of Residuals (Figure 45) and P-P Plot (Figure 46) graphics were processed, from which no problems of normality, linearity or homoscedasticity are evidenced. The model and its results therefore remain valid for the purposes of this study.

Figure 45 – Scatterplot of Residuals Linear Regression Hypothesis 5





Regression Standardized Predicted Value

Source: Author's work



Figure 46 – P-P Plot Linear Regression Hypothesis 5

## • *Hypothesis 6: The willingness to pay for animal welfare products affects the choice of a hotel*

To test the *Hypothesis* 6, linear regression was performed between the independent variable "How much more are you willing to pay to consume animal welfare food than the same standard food?" and the dependent variable "You have to choose a hotel to stay in: how much does the use of animal welfare raw materials in the catering and breakfast services influence your choice?". The regression model was found to be strongly statistically significant (F=110.653, p<0.001). There was a significant strong positive correlation between the two variables, ( $\beta$ =0.576, p<0.001), explaining 33.2% of the variance ( $R^2$ =0.332) (see Figure 47). It is highlighted that a higher willingness to pay premium price for animal welfare products affects the consumer's choice of a hotel based on its animal welfare offering, therefore the null hypothesis for *Hypothesis* 6 was rejected.

	You have to choose a hotel to stay in: how much does the use of animal welfare raw materials in the catering and breakfast services influence your choice?			
How much more are you willing to pay to consume animal welfare food than the same standard food?	0.677*** (0.064)			
N	225			
β	0.576			
$R^2$	0.332			
<u>F</u>	110.653***			
Standard errors in parentheses *p<0.05, **p<0.01, ***p<0.001				

Figure 47 – Linear Regression Hypothesis 6

We then proceeded to check the validity of the results. Model results report VIF value 1.0 with Tolerance 1.0, showing no multicollinearity problems (see Figure 48).

Figure 48 – Coefficients Hypothesis 6

	Coefficients <sup>a</sup>							
		Unstandardized	l Coefficients	Standardized Coefficients			Collinearity	Statistics
Mode	el	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	0.949	0.402		2.362	0.019		
	How much more are you willing to pay to consume animal welfare food than the	0.677	0.064	0.576	10.519	0.000	1.000	1.000
	same standard food?		1.1	6 1 1 10	· · ·		11 16	
a. De	pendent Variable: You have to choose a hotel	to stay in: how m	uch does the use	e of animal welfare raw mate	erials in the	e catering	and breakfast	services
influe	ence your choice?							

Source: Author's work

Then, the Scatterplot of Residuals (Figure 49) and P-P Plot (Figure 50) graphics were processed, from which no problems of normality, linearity or homoscedasticity are evidenced. The model and its results therefore remain valid for the purposes of this study.









Source: Author's work

### 4.2. Interviews

Qualitative research was used to study the parts of the market that produce the offer for the consumer, namely the hospitality industry and the agri-food industry, starting with the company that is the protagonist of the data case *Sovrana Hotel*. Our objective was to investigate animal welfare compliant managerial practices and the processes for their implementation within the hospitality industry.

The results were organised according to the aggregate dimensions that emerged from the GIOIA method (Magnani & Gioia, 2023) coding reported in the methodology (see Table 2), i.e. *Corporate Philosophy*, *Hospitality Managerial Practices*, *Consumer Relationship*, *Hospitality Animal Welfare Association* and *Producers*.

### 4.2.1. Corporate Philosophy

As repeatedly reported, the interviews were submitted to actors that play different roles in the market, which entails a substantial difference in basic interests, which in turn generates different structures and business processes, each one addressed to the achievement of its own distinct objectives; it is very interesting to highlight how all the interviewees, whatever their part in the supply chain, expressed a personal sensitivity to the animal welfare subject under investigation, which brings the entry of this value within the paradigms of business visions, with a consequent widespread expansion of the theme across all branches and business processes.

"We also have a responsibility, in my opinion, to create culture. This project must also help to create culture and at least make as many people as possible aware of what the difference is between ethical and conventional farming, so if you explain it to them, maybe you could at least steer them in that direction, then of course everyone is free to make their own choices, but maybe someone doesn't know and from tomorrow they might just wonder why I choose this product" (*Cinnamon*).

From the interviews it emerged, again from all those interviewed, the sense of responsibility they have in their business activities towards the context in which they operate, especially the social side; these companies want their customers to know the history of the raw material, why it was chosen and how impactful their awareness of

this issue is. Still on the social side, the company *Vanilla* reports that they often bring the entire kitchen brigade on company visits for supplier selection, so as to train their human capital, and at the same time have more precision in selection thanks to the opinions gathered from those who will then process the raw material.

One of the words most repeated by the interviewees was ethics, an element highlighted by all as a driving force for the application of animal welfare in their companies, a value to be placed even before the economic side, to cite a few examples "ethics in this matter carries enormous weight and one must believe in it regardless of the economic side" (*Cinnamon*), or "at the moment (the choice of adopting animal welfare) it is 80% ethical" (*Vanilla*).

A practical example of how ethics is a driving force on the subject of animal welfare is the Sovrana Hotel company, which has led Dr Azzurri not only to the adoption of various company policies within its structure, but also to the creation of an association of hospitality companies that share the same vision in animal welfare, and to activism on training on the subject, through the dissemination of its project in schools, academies and companies.

### 4.2.2. Hospitality Managerial Practices

This category is the broadest and encapsulates the heart of this research. The companies interviewed report that animal welfare is central to the development of their strategies, using it in the market as an element of diversification from the competition. In the case of the Sovrana Hotel, the structure is also commercially defined by the owners as an animal welfare hotel, thus generating a direct positioning of the offer on the market; Dr Azzurri reports that the structure is also commercially defined as an "animal welfare hotel", thus generating a direct positioning of the offer on the market. Dr Azzurri reports that the Sovrana Hotel is one of the first hotels in the world to have reported this denomination; following the creation of the association of hospitality companies on the subject, which we will discuss in the appropriate chapter later (pp. 126-127), the denomination of "animal welfare activities" can also be used by the

structures that adhere to this association, some of which among the interviewees, report the same level of weight of the subject in their positioning strategies.

It was pointed out that the first steps for the implementation of animal welfare within companies are in the area of training and analysis of the state of their supplies. It is in particular Parsely who explicitly emphasises the importance of the question at the basis of all subsequent management practices, i.e. where do the products I am buying come from. The companies interviewed, therefore, after training on the subject, also through the support of associations such as that of Dr. Azzurri, have paid attention to the origin of all incoming raw materials, selecting suppliers and raw materials that comply with minimum animal welfare standards in production, dictated either by what is required by the association they belong to or according to their own personal ethical standards that are then reported in the company philosophy. This selection is carried out both by obtaining information directly from the supplier and producer, therefore carrying out passive research, and through active research, mainly carried out in the locations where the companies operate, of suppliers with on-site checks on the actual application of animal welfare policies in the animal farming and production processes.

The animal welfare checks that are carried out by the facilities interviewed are mainly on the types of animal farming adopted and the amount of space that the animals have materially available; other characteristics are then observed such as the breed of animal bred, opting for native species and that are not genetically selected for rapid growth, the quality of animal feed, the quantity of production and the methods of slaughter. For example, *Vanilla* points out that he managed to find a small animal farmers of pigs of the Mora Romagnola breed, therefore autochthonous, which also allows the animals to graze in the woods, or *Cinnamon* who reports having found a company that farm a small quantity of black pigs free-range in the hills with exceptional product results. All these processes, in the companies interviewed, spill over into the catering services offered to customers, only breakfast in the case of the Sovrana Hotel, while for the other establishments also lunches and dinners.

Animal welfare interventions may also be not directly related to the food sphere; in fact, the Sovrana Hotel has also included this issue in its policies for the selection of consumables, such as the exclusive use of certified vegan soaps that do not contain

any derivative of animal origin. It is evident that the use of ethical principles as primary paradigms in the corporate visions of the interviewees also brings in the activities important interventions in the field of sustainability on a par with those in animal welfare. These activities touch all areas of the business, ranging from structural technological implementations to the management of consumables for each customer.

On the technological side, the interventions reported are the implementation of home automation systems for the efficiency of energy consumption and management of the facilities; change of technology of the hot water heating system with a condensation boiler system that generates significant reductions in consumption; installation of thermal insulation on the external cladding of the structures with impacts on heat dispersion and related reduction of energy consumption; complete renovation of lighting systems with transition to LED systems that allow a drastic reduction in energy consumption; installation of flow reducers in all the taps of the structure to reduce water consumption.

In this context, *Vanilla* highlights its desire to install a photovoltaic system for both domestic water and energy production, but due to certain policies to protect cultural heritage, it is not allowed to do so because of the structure's location in the historic centre, highlighting how very often the entrepreneur's vision and his investments, despite having a positive impact on society, are hindered by bureaucracy.

But great impacts also arise from interventions in the management of equipment and consumables. Among these, those reported are the use of plexiglass tables that allow their complete recycling at the end of their life, generating neutral environmental impact; the replacement of all disposable courtesy kits from plastic to paper or compostable materials, the elimination of disposable soaps and their replacement with refillable wall-mounted soap dispensers, the replacement of all water bottles from plastic to tetrapak, glass and cans, interventions that all together generate a reduction in the amount of plastic used and waste produced; the elimination of all paper material with a switch to digital documentation, which generates significant paper savings, with both environmental and economic impacts.

The interviewees explained that this whole series of solutions and investments serve mainly to generate positive impact in the conduct of business, without neglecting the
important effects on financial management. Animal welfare practices also have an impact on sustainability, in fact the interviewees report this as a consequence of their raw material selection processes; the choice of local producers leads to a decrease in transport distances, with an associated reduction in emissions; furthermore, this leads to social impact with the injection of resources within the local community, which generates small virtuous systems of circular economy that lead to collaboration and welfare.

All these business processes have important costs, which the interviewees report as largely sustainable, and, above all, they enable the company to target its offer to customers who are sensitive to the topics discussed so far and are willing to pay a higher price than the market average in order to receive these additional ethical values along with the service.

Financial management therefore plays a fundamental role in managerial processes, as correct management and planning allows the realisation of the company philosophy. The interviewees, in financial matters, all apply premium price policies to protect their assets. For example, the Sovrana Hotel imposed on its distributors, when it implemented its animal welfare policies, a 10% increase on the prices of all rooms and a  $\in$ 1.50 increase on each breakfast offered; or *Vanilla*, which, in its offer, proposes a dish at  $\in$ 16.00, whose average market value is  $\in$ 10.00, an increase necessary to cover the higher costs in the purchase of raw materials, which in some cases can reach 70%.

*Vanilla* also reports that the cost structure of companies managed according to these ethical paradigms is very complex, given the series of processes and higher costs incurred in the raw material purchasing stages, and therefore requires management control for its success.

The establishments state that from the moment they changed their policies and implemented animal welfare, their turnovers increased steadily over time, but none adopted criteria to analyse whether this growth derived exclusively from the inclusion of animal welfare in their offer or from a combination of several factors.

All interviewees report the management of raw material availability according to their standards as the main critical issue in the use of animal welfare policies. The producers

who are compliant with the interviewees' demands are mainly small local entrepreneurs who do not have a large size and structure, also in terms of logistics. This leads to difficulties in the sourcing of goods and the consistency of supply levels. The solution shared by the interviewed companies is that of scheduling, which makes it possible to create a relationship with the supplier over the long term, so as to preallocate production over a defined time and, at the same time, allow the hospitality companies to manage their supply accordingly.

#### 4.2.3. Consumer Relationship

This category emerged in all the interviews carried out and is intended to report evidence on how customers and companies interact. Animal welfare policies represent an added value for establishments; the interviewees highlighted how knowing how to transfer their know-how on the subject, through the storytelling of the product served and the telling of their selection work, is fundamental for the consumer's understanding of this value. Once they have been informed and made aware of the subject by hospitality companies, customers are willing to spend more than in places where conventional raw materials are used. *Cinnamon* reports that many customers are impressed by the information they receive about the intensive farming methods practised, actively asking for more information and engaging in constructive dialogue on the subject.

According to the Sovrana Hotel, this information transparency is the missing element in the market, and serves to create awareness in consumer choice; in fact, it states that thanks to its transparent information on the subject and its selection work, it builds a lasting relationship with its customers, who will return in the following seasons. The latter represents one of the main feedback that the interviewees highlight as a symbol of the success of their animal welfare practices; another element of feedback, *Vanilla* reports, is the request by customers to purchase for domestic use the raw material tasted in the dishes served in the facility.

The main criticism reported on the subject is dictated by the sector's operators' difficulty in finding the right way to make customers perceive the value of what they

are serving and the work done to achieve that result; in particular the real existence of an alternative to conventional products. Furthermore, interviewees highlight how they often receive responses from their customers about their difficulty in buying animal welfare raw materials on a daily basis as opposed to conventional foods, due to the lack of transparent information in the shop which fuels consumer scepticism.

"The biggest difficulty is to make the guest aware of all these good practices and of the fact that there is the possibility of buying products that are different, in quotes, from the conventional product that we always find in the large-scale retail trade. There is not much culture about purchasing" (*Vanilla*).

## 4.2.4. Consumer Hospitality Animal Welfare Association

The Sovrana Hotel's owner, Dr Azzurri, has carried out a great deal of research for the development of her hotel's animal welfare policy, creating an active system for the selection of suppliers and raw materials that would enable her to find products compliant with her own minimum standards on the subject.

On the basis of this work, an informal association was created by Dr Azzurri, bringing together hospitality companies that share the same animal welfare philosophy. The mission of the association, led by Dr Azzurri, is to achieve the concrete improvement of animal welfare on farms. To achieve this goal, the association moves in two directions: on the one hand to create consumer awareness on animal welfare through the offer of animal welfare compliant services and products and the passage of information to the customer on what they are consuming, the origin of the material, the farming practices adopted, and the great work of selection behind the plate; on the other hand to create impact in the field by actively and personally selecting suppliers of raw materials according to high minimum animal welfare standards. The common idea of the interviewees is that when several companies together need products that meet high animal welfare standards, either the supplier conforms to that standard or the association can shift its orders to other suppliers who are more virtuous and meet the required standards, thus pushing animal farms to increase their animal welfare levels to be competitive in the market.

The organisation has an informal structure and there are no control or management bodies. It is therefore essentially an informal collaborative arrangement between companies with common goals. The current size is 7 member companies. Membership of the association is free of charge and on a voluntary basis by hospitality businesses, mainly establishments in the accommodation sector but also restaurants.

The first supplier selection process was carried out by the founder, Dr Azzurri, by researching and visiting producers in person. Three companies were selected, one producing eggs, one producing milk and derivatives, and one producing pork and derivatives; the three companies represent the basis of the association.

Membership is on three levels, i.e. the same number as the number of suppliers selected by the association: membership involves a self-certification by the adhering company that it will use one, two or all three of the suppliers selected by the association for raw materials, and a letter of commitment to respect high levels of animal welfare in the selection of producers for all supplies to the company; the more suppliers of the three selected by the association are used, the higher the level of membership is considered. The member receives the opportunity to use the animal welfare logos created by the association in its marketing activities and an "Animal Welfare Company" plaque showing the level of membership. The companies remain independent and have the possibility to choose their own supply chains independently, always considering their commitment to use the suppliers selected during membership of the association and the need to adopt selection processes to respect the minimum animal welfare standards required by the association.

Interviews show that member companies also adopt the same supplier selection model as Dr Azzurri, i.e. through on-site visits of production facilities and processes to verify the information provided during the first contact on animal welfare Member companies are in contact with each other, and exchange information about the producers found to be compliant with the minimum animal welfare standards required by the association. The exchange of information makes it possible to provide back-up producers who can compensate in the event of temporary supply shortages of other producers.

## 4.2.5. Producers

In this section, the analysis shifts to the side of companies that produce raw materials, i.e. those companies that have to materially generate animal welfare through their processes and work on the farm. The interviews revealed that the producers who are very active in animal welfare are realities driven by great passion for their activities and with a strong ethical vision of doing business; this is materialised by a great care for animal welfare in their structures and the displacement of economic interests to the background. The productions are limited and focus purely on quality. The size of these companies is mainly small, with a low level of organisation. But there are exceptions to these characteristics.

For example, *Curry* represents a case of national excellence: despite being a large company, with also production for export, over the years it has built its business and success mainly on the welfare of its animals and sustainable animal farming practices, managing to create a highly diversified product compared to its competitors. According to *Saffron*, animal welfare is actually an ever-present condition within every farm, whether industrial or family-run, as its absence leads to a reduction in the quantity and quality of production; therefore, no farmer would do without it. *Paprika*, however, confirms the thesis supported by most with their own experience: by choice they have remained a small farm so that they can decide on their target customers and have more freedom in their choice of selling prices and not be subject to the downward prices of large retailers; this allows them to have the economic capacity to work with high animal welfare standards, much higher than the market at the expense of a greater economic return.

The interviewees report that the most animal welfare-friendly companies are companies whose production activities are subject to fluctuations in supply, dictated by smaller production quantities and more exposed to problems and risks that can slow down the marketing of the product. For example, *Paprika* states that its target customers are aware of possible delivery delays. This production model is accepted by companies in exchange for products of a much higher quality level than the market average, and, as reported earlier, hospitality companies such as *Vanilla* respond to these production methods with medium- and long-term planning in order to make up for

possible periods of raw material shortages. Also in this area, there are large companies, such as *Curry*, that adopt more industrial production strategies, managing to almost completely limit the problems arising from the management of production processes, without affecting animal welfare.

In animal husbandry processes, there are several features that companies introduce in order to ensure an optimal level of animal welfare; here are some of the evidences found. The interviewees all report that they do not carry out mutilations on their animals; in cases where castrations are carried out, these are done under anaesthesia in order to reduce animal suffering to zero. All the interviewees declare the absence of the use of antibiotics in a systematic preventive manner.

*Paprika*, who is active in poultry farming, adopts an extensive type of farming and does not use any cages. It states that it produces part of the feed given to the animals, so that it can better manage the quality of the feed; this implies the absence of growth promoters that would compromise the quality of life of the animals and the final product. In fact, the life time of the animals on the farm is more than double that of intensive farms: for example, a chicken that in intensive farms reaches maturity for slaughter in 25 days, on their farm reaches it in 70 days. The animals on the farm have access to the outdoors and spend much of the day scratching around.

*Curry*, which is active in pig farming, adopts an extensive farming system. The company claims to have included environmental enrichment within its herds in order to stimulate the natural behaviour of the animals. The sows have special sections with ample space where they are free, unlike the traditional system of rearing in cages. During slaughtering, the practice of CO2 stunning is adopted, which allows for the absence of animal suffering.

Another issue investigated was the relationship between animal welfare and the quality of the final product. This relationship is very difficult to prove. According to the interviewees, there is a problem in the definition of the concept of quality itself, as the common feeling identifies this in an aspect of greater taste and goodness on tasting. But in reality, this view is reductive. According to *Saffron*, when talking about quality there are many factors, especially technical ones, that are not always identified, such as technical quality, nutritional quality, technological quality. An improvement in one

of these qualities does not directly lead to an improvement in goodness and taste when tasting, just as, at the same time, greater goodness in taste and on tasting does not necessarily result from an actual greater quality in the other aspects mentioned above.

According to *Parsley*, today the concept of quality also includes all that value that revolves around the material product, such as the ethical vision of the company, the way in which the animals are bred and the maintenance of their wellbeing in the farming practices, the sustainability of the production processes, the respect of adequate working conditions in the production companies. *Curry* agrees on this.

Considering the absence of national and international standards on animal welfare, the interviewees declare that they each provide in a different way their own philosophy of animal welfare adopted on the farm. *Parsley* points out that there are many certifications on the international market, each with different animal welfare standards required for accreditation, creating great confusion in the marketplace among consumers and hospitality operators. Large companies, such as *Curry*, adopt private certifications that provide logos that can be displayed on product labels to allow for diversification and on-shelf identification.

For smaller companies, such as *Paprika*, informal dissemination of information to customers remains the most popular method. This is also confirmed by the hospitality companies, which show a great lack on the marketing side of the small producers they source from. Nevertheless, through on-site checks, the hospitality companies interviewed still personally verify the information received from producers, whether received informally or through certifications.

*Saffron* reports that an animal welfare certification system has been created for the Italian market by the Ministry of Agriculture to combat the multitude of certifications on the market. According to *Parsley*, however, this contains within it very low animal welfare standards that do not generate correct information on the subject to consumers, and leads to the belittling of the value of private certifications with much higher welfare standards.

Obviously, all this must then be confronted with the financial issue, as maintaining high levels of animal welfare involves much higher production costs than intensive systems. The first animal welfare instrument adopted, as we have seen, is to increase the usable area per animal, which leads to a reduction in the quantity produced on the same area, already generating an initial higher cost. In addition, the use of high quality feed, the investment in environmental enrichment, the longer life span of the animals on the farm, are all factors that lead to a further increase in costs. Nevertheless, all respondents report financial sustainability of their projects. *Paprika* states that the impact of its higher production costs on the end consumer can be as much as 30 per cent higher than the same conventional product. *Vanilla*, on the other hand, states that on some items it can spend as much as 70% more in order to have access to an animal welfare product.

According to *Saffron*, expanding the view globally, the higher cost of increasing animal welfare levels in livestock farming is not sustainable for many populations, both for financial and practical issues; in difficult contexts, where there are problems in achieving the correct daily nutritional intake or problems in sustaining the population, it is difficult to commit more money to increasing animal welfare, so the model is difficult to apply on a large scale.

In various interviews emerged that there are several situations in which the producer or supplier has to adapt its offer to market demand, sometimes forcing the company to have to limit or not fully express its business vision in favour of market needs in order to stay alive. An example is that of *Oregano*, stockist, which, despite considering the use of organic systems in agriculture as necessary, is forced to keep most conventional products in its offer because customers do not buy organic products because they are aesthetically less attractive than conventional ones. *Paprika* and *Curry* also, albeit marginally, keep in their offer some products whose production processes are of lower animal welfare standards than those used for the majority of their production; this is necessary in order to be able to cover a sufficient market share to allow profitability, and thus survival, of the company.

# **CHAPTER 5 – Findings Analysis & Discussion**

The objective of this study is to analyse and codify the managerial practices adopted by companies in the hospitality industry to implement animal welfare in their processes. The company involved in the data case is the Sovrana Hotel & Re Aqva SPA in Rimini, Italy, whose owner has founded an association of companies active on the subject. The subject was then investigated through further interviews with both companies belonging to the aforementioned association and companies in the hospitality and agri-food industry active on the subject, as well as the administration of a questionnaire to a sample of consumers.

The study was complex due to several factors. Firstly, the context of the analysis is very broad and varied, since it includes not only the hospitality companies active in this field, but also all the other players in the value chain of the industry under analysis; namely, both the upstream value chain, consisting of the production companies where animal welfare is materially generated, and the final link in the chain, i.e. the consumer customers. In addition, the literature is very lacking, at times even inconsistent, both in terms of animal welfare theories and managerial practices.

The study, therefore, was structured to be able to provide the research answer through the in-depth analysis of all the actors in the context and their interactions; interactions which, together with the annexed problems that arise, determine the development of managerial practices on the subject. The adoption of the mixed (quali-quanti) approach as a research method allowed for an effective analysis process and led to the creation of a holistic multi-dimensional view on the subject. In the end, I used quantitative methods to explore consumer perspectives and qualitative methods to explore industries perspectives.

The consumer's point of view was studied by conducting a questionnaire, the results of which were set out in the previous chapter 4 (pp. 73-104). The consumer sample analysed appears to be very interested in the subject of animal welfare, despite not having a great deal of knowledge on the subject; in their consumer analysis, they pay attention to the price factor, but quality remains a decisive element in their choice. The

sample perceives the animal welfare product as being of higher quality than the conventional product, and has an average propensity to pay a premium price for its purchase. It is interesting to point out, for the purposes of the study, that the presence of animal welfare products on offer does not represent a reason for choosing a hospitality service, but, at the same time, the possibility of being able to choose between animal welfare and conventional offerings at the time of consumption in a hotel or restaurant is almost unanimously appreciated.

The first evidence from the sample analysis is the discrepancy between the reported interest in animal welfare and the high lack of knowledge on the subject; the latter issue was reported by several respondents, both producers and hospitality companies. According to the interviewees, the cause stems from the absence of common animal welfare standards, which leads each company to operate individually and to the creation of a disorganised multitude of animal welfare certifications. All this generates low transparency for the consumer, which materially spills over into product labels; labels that turn from a tool of information into a tool of confusion, creating problems for the credibility of the work of the various companies in the field of animal welfare and for the topic itself. These kinds of problems with labelling systems find support in the literature (Sahin & Gul, 2023). Within this framework, the important dissemination role played by the hospitality industry on the subject highlighted by the interviewees is also confirmed. It would however be interesting to investigate the possibility of solutions that guarantee more information and transparency on the matter in consumers and hospitality companies, such as clear animal welfare certifications highlighting the virtuous and the implementation of centralised traceability systems of the entire food chain, also through the intervention of institutional entities that, with their name and image recognised by society, can guarantee the correctness and credibility of the information received by the market.

A further element to be noted is the perception of superior quality of animal welfare products by the sample; in the surveys it emerges that the quality element is the driving force in consumption choices, therefore, for market positioning purposes, it may be interesting for hospitality companies to include animal welfare products in their offerings; above all, at least, to begin by including some animal welfare proposals to go alongside the conventional proposals, given the very high level of satisfaction, noted in the sample, regarding the possibility of choice at the moment of consumption.

All six hypothesis tests proposed in the chapter 3 (pp. 63-67) were performed in order to verify the hypothesised framework between variables (see Figure 4 p. 66). The results confirm the existence of the hypothesised correlations. The framework envisaged the search for those characteristics that determine an incentive to consume animal welfare compliant products and services. It is very interesting to first highlight the symmetrical correlation present between interest in animal welfare and knowledge of the subject: this shows how a bidirectionality is active which explains that the search for information derives from interest in the subject, but also that interest arises from the knowledge received. This relationship is very important for hospitality companies active on animal welfare, as it confirms the importance of their social and educational role on the subject. Interest also has an impact on the increase in the propensity to pay premium prices for spending on animal welfare compliant products and services; which in turn affects consumers' choice of commercial establishments based on the availability of animal welfare products; in this specific case the correlation in the choice of a hotel based on these criteria was investigated and confirmed. But the same correlation was also demonstrated for knowledge of the subject, which, in addition to influencing interest, also affects consumer choice, in this case in the choice of a restaurant based on whether it offers animal welfare or not. Finally, interest in animal welfare also turns out to be a predictor of greater attention in the choice of a business on the basis of its animal welfare offer, in this case tested on the choice of a grocery store. Thus, interest in animal welfare and consumer knowledge of the subject appear to be the basis for increased impact on the subject by hospitality businesses.

The producer's point of view was studied by conducting interviews. The research showed that the farms that adopt very high animal welfare standards are companies led by entrepreneurs who prefer the ethical and passionate aspect in carrying out their activities to the detriment of the economic one. In these companies, according to several interviewees both among producers and among hospitality companies, the quality of human capital has much weight in the performance of activities and in the realisation of the company vision, making it a further element of differentiation from other competitors; this is consistent with the application of high levels of ethics in business processes, which helps, therefore, the achievement of the animal welfare sought by vision; this correlation is also supported in the literature (Hemsworth and Coleman, 2009). The size of the company, on the other hand, does not appear to be binding for the achievement of the result.

The interviewees pointed out that the direct management of all animal farming activities is fundamental in order to maintain full control of all processes; this is exercised through constant monitoring of activities, including the level of animal welfare, ensuring that, in the case of the detection of real or potential problems, it is possible to intervene promptly to resolve them; this management model found to be consistent with the literature (Whay, 2007).

Production strategies are developed according to the size of the herd; a characteristic that is typical of this type of activity is the presence of the risk of supply fluctuations, a risk that hospitality companies are aware of and manage both by scheduling supplies with the animal farmers and by diversifying suppliers to make up for possible shortage periods. Another characteristic reported by the interviewees, is the high number of activities that produce small quantities of product, which, despite the high quality level, do not allow for exclusive supply.

The rearing processes differ according to the type of species reared and the size of the farm. The animal farming model applied by all the interviewed farms is extensive, a model considered to be one of the best for achieving high animal welfare standards, as also found in the literature (Latruffe et al., 2023). No farm interviewed performs mutilations on animals, with the exception of castrations, but with the use of anaesthesia.

The higher quality of the finished product, compared to the conventional product peer, is a characteristic that all respondents report, and with which, according to the survey, the consumer sample agrees. This characteristic generates a problem of quantification, since while the concept of quality encompasses all those intangible values of a product that accumulate from its design to the consumption experience, in this case it is often reported in the form of a qualitative aspect of taste that falls under a highly subjective and untestable evaluation; there is no literature to compare with this.

The main problem with animal welfare appears to be the absence of national and international standards to provide clarity on the subject. This leads to the presence on the market of a multitude of private certifications on the subject, each with different standards, which leads to confusion among both consumers and operators. In addition, this results in the absence of a drive for improvement in this area, since depending on their level of animal farming, each farm can choose the certification where it is already compliant without having to make investments. These differences were highlighted by all the operators interviewed; many stated that they do not adopt certification, one stated that he had selected private certification. There are also discussions in the literature on the absence of standards in this regard (Annen et al., 2011).

Production activities that guarantee high animal welfare standards entail much higher management costs than comparable activities that do not adopt the same animal welfare policies. This generates for animal welfare compliant animal farmers the need to be able to allocate their production to target customers willing to spend a premium price. For small livestock farms, given the small quantities produced, it is easier; it is a different matter for medium and large livestock farms, since, as the quantities produced increase, it becomes difficult to focus on a single target clientele to allocate all production, thus having to diversify their product over several lines to satisfy demand over several price ranges. This turns out to be a necessary compromise for survival for some interviewed companies, even virtuous ones at that. The problem, as reported by the interviewees, derives from the constant war on the market to lower prices, which generates competition on cost management, which in turn develops direct impacts on the levels of animal welfare practised on the farms; this is also evidenced in the literature (Appleby, 2005).

Continuing the analysis, we move on to the last actor in the context, and the heart of this study, namely the hospitality business. The study reveals that the companies in this industry that choose to carry out their activities with animal welfare policies, are companies whose owners have a personal propensity towards a series of values that are considered primary with respect to mere economic return. The primary value turns out to be ethics, which is probably also the term most frequently mentioned in the interviews by this industry.

It is interesting to note how the inclusion of this term at the apex of decision-making processes generates a cascade of consequences on the entire process chain, from top to bottom, with high impacts on all activities, both for those who carry them out and for those who benefit from the services and products generated. It is therefore evident how the corporate vision of these companies represents a paradigm shift in doing business, transforming the financial result from a primary objective (Friedman, 1970) to a natural consequence of carrying out their activities guided by ethical policies.

The interviews reveal how all these companies feel a strong sense of responsibility towards the context in which they operate with regard to every aspect of sustainability (environmental, social and governance). In particular, animal welfare impacts on environmental and social. The impact on the environment is created firstly through the protection of a healthy management of fauna and the associated maintenance of biodiversity, as also found in literature (García Pinillos et al., 2016); then, with the use of short supply chains as the main supply chain, which generates, in most cases, substantial reductions in transport distances with annexed emission savings and cost efficiency; this is also found in literature (Jarzębowski et al., 2020). As far as social impact is concerned, companies have it first and foremost towards their customers, providing transparent information on what they consume and raising awareness on the matter, creating awareness that is lacking in the market on the subject; information and awareness that is also addressed to the company's own employees; finally, further social impact is generated towards all operators in the agri-food sector, since, when choosing a virtuous supplier, hospitality companies reward companies that, as seen in the analysis of producers, have a great interest in the human side of doing business, allowing more people to benefit from worker-friendly jobs.

It is interesting to emphasise how the interviews highlighted how important it is for hospitality companies to create a relationship with their customers; this is realised in a two-way process of information exchange, first from the company to the customer, and then from the customer to the company; the company, as previously stated, first informs the customer in detail about what they are consuming, the origin of the food, the animal welfare policies adopted by the producer, etc., and then, if they find that the customer is not satisfied with the food, they are informed about the company's policies and procedures. and then, if it finds room for comparison, on the animal welfare systems of animal husbandry and meat production, thus fulfilling part of its CSR (Corporate Social Responsibility) activities. The subsequent exchange of information, from the customer to the company, corresponds to the feedback received, which can be implicit, i.e. through, for example, the request to be able to buy the products tasted or to be able to have the contact of the farm where they can buy meat that respects the standards set out for personal use, or explicit, through the issuing of written or verbal feedback; the latter interaction was considered the most important by the companies, as it allows them to question themselves and analyse their processes to improve and align the material offer perceived by the customer with the potential offer present in the company's vision. All of this confirms the extent to which companies in the hospitality industry that operate with corporate welfare policies are dynamic structures that are more open to their context than traditional business management. This is the result of the great care given to ethical and human factors throughout the process chain and at all levels of operation. Evidence is found in the literature of the importance of customer relationship building for the achievement of business success (Alam et al., 2021).

The interviews made it possible to codify many managerial practices that hospitality companies active in animal welfare adopt within their facilities. In particular, the constant correlation between the implementation of animal welfare policies and the implementation of sustainability policies appeared relevant, being in some situations complementary, further demonstrating the need for a holistic and multidimensional intervention for the realisation of the company vision in line with the company philosophy.

In order to implement animal welfare in the company, a well-defined process of managerial practices emerged, adopted and shared among the interviewed companies, reported here in six consecutive phases (see Figure 51).

#### Figure 51 – Animal Welfare Implementation Process



#### **Animal Welfare Implementation Process**

Source: Author's work

The first phase corresponds to the moment of training; the owners of the companies collect information on animal welfare, mainly from associations specialised in the subject or associations of hospitality companies operating in this field, such as the one led by Dr Azzurri;

The second phase corresponds to the elaboration of subjective policies; the companies rework the information found in the previous phase and proceed with the creation of their own vision on the subject consistent with their own values; this leads to the creation of the company's subjective policies, materially a set of minimum standards that will be required of suppliers in order to open a business relationship; the raw materials that will enter the company from these channels, in some cases will represent the entirety of the proposed offer, in other cases only a part of it, with some companies foreseeing the simultaneous presence of conventional and animal welfare offers, allowing the customer to choose.

The third phase corresponds to the search for suppliers; the companies actively search for animal farmers and production companies that meet the minimum standards drawn up. In this phase, on-site visits also take place for the material verification of the information received from the supplier in the first contact phases, in order to guarantee the real impact that the company wants to achieve. The interviews revealed that in this phase, in some contexts, members of the kitchen staff were also involved, in order to train the staff and, above all, to receive opinions on the selection of raw materials from those who, at a later stage, will materially process them.

The fourth phase corresponds to the management of the commercial relationship with the selected suppliers; once the suppliers have been selected, they activate the commercial relationships and start receiving the ordered material. Quality control is constantly carried out on the products received and periodic on-site checks of the suppliers are carried out; in several of the companies interviewed, this takes place informally when the owner of the hospitality business goes to the supplier company to collect the ordered goods in person. The suppliers, in most cases, are small companies that carry out their activities in locations close to those where the hospitality companies operate; therefore, this facilitates quality supervision and allows for the creation of much closer relations than those that could be established with larger, more structured companies; in fact, in this case, the predominant element of business relations is the human relationship. While the small company provides access to high quality products, it also causes the biggest problem found in the analysis, namely fluctuations in supplies; manufacturers often do not guarantee delivery dates for supplies, as their size and structures mean that they are subject to critical issues that impact on longer production times. The hospitality companies interviewed deal with this criticality in three ways: through the creation of an offer that is flexible and based on the seasonality of the products, so as to be able to remove a product for a limited period of shortage; through the planning with suppliers of the quantities of products needed in the medium term; through the diversification of suppliers of the same raw material, so as to have more product capacity on the market in case of need.

The fifth phase corresponds to the processing and transformation of the raw material, and represents the part where sustainability policies intervene; companies adopt behaviours that lead to the drastic reduction, if not to zero, of food waste, creating balanced menus and offers to achieve this objective. The kitchen is also one of the places where many of the investments made by companies for sustainability are found, mainly through the purchase of energy and water efficient machinery.

The sixth and final stage corresponds to the customer relationship, which has already been discussed above.

There are no analyses of best practices in this regard in the literature, but the managerial practices adopted by companies in the creation of the process just reported are consistent with the literature (Medlin et al., 2016).

The interviews revealed that this process generates serious impacts on the financial cost structure, which therefore needs careful analysis in order to ensure the economic

sustainability of the company and its profitability. All animal welfare policies generate added value, which manifests itself directly on the final price to the customer, who may pay up to 70% more than the price of the same conventional product on the market; one of the challenges for companies active in this field, therefore, is to achieve an adequate communication capacity that allows customers to perceive the added value that their product incorporates, so as to stimulate that propensity to pay a premium price that is present on average in consumers towards higher quality products, evidence in the literature (Zheng et al, 2022) and found on the sample of customers analysed in this study.

It is highlighted that all the activities of these processes, carried out by hospitality businesses, do not actually involve material processing, but are a set of conscious, connected and coherent choices that bring real and tangible impact through the hands of the farmers. This highlights, therefore, the need for hospitality businesses that espouse the business vision outlined above, to achieve high levels of competence, only achievable through significant investment in human capital, both in the selection and training phases. Perhaps the most important passage from all the interviews surveyed is reported: "The biggest investment, in my opinion, is in human resources and therefore having a staff of collaborators who clearly need to be valued and who in some way make them the same school of thought, the same philosophy of thought so that they can then put in the preparation of what they do, rather than in the administration for those who do the service, the same love and commitment that is put in by those from above who have already espoused that type of philosophy, so the biggest investment has been in human resources, after which it is constant, because in any case, we are talking about products, raw materials at origin that have a much higher cost than traditional commercial ones" (Vanilla).

The study of the data case company showed how aggregating like-minded companies can generate real animal welfare impacts in the agri-food industry. The association created by Dr Azzurri represents a basic model on which to build high-impact realities on the subject. The association, according to the interviewees, currently has no organised structure and is purely a group of companies that informally collaborate with each other to achieve a common goal, namely the improvement of animal welfare levels in the agri-food industry. The founder, Dr Azzurri, following personal training on the subject, has codified minimum animal welfare standards to be required of suppliers; on this basis she has made a careful selection of three animal farmers for the supply of primary foodstuffs such as eggs, milk and pork derivatives. Member hospitality companies are classified according to how many of the three suppliers affiliated with the association they use: 1 supplier, "bronze" membership, 2 suppliers "silver" membership, 3 suppliers "gold" membership. Each company in the group is free to expand its pool of suppliers, with the condition that the minimum standards defined by the association on animal welfare are respected; currently the companies exchange information among themselves on the suppliers that each uses following their own selection processes, which include on-site inspections of the conditions of the animals reared.

There are, therefore, structural deficiencies in the organisation of the association that, if overcome, would better assist the companies in achieving their shared mission. This could be done by strengthening and regulating the activities already carried out by the informal association and its member companies. A more organised system, for example, would allow the creation of group orders in order to have greater bargaining power over suppliers, being able to increase demands and impact over time towards animal welfare. Still as an example, a greater structure would make it possible to formalise the exchange of information between the association's farms and suppliers selected and assessed, creating a shared database, platform type, to the feeding of which everyone could contribute, creating a crowd organisation-like system, with the annexed advantages of time and costs on selection activities and the expansion over more territories of research, since all the farms are active and connected to each other. Furthermore, a central structure would allow communication activities with consumers to be carried out in order to provide training on the subject and present the offers available to the market that are compliant with the association's mission. There are no similar case studies or theories in the literature demonstrating the effectiveness of this association system; therefore, the one observed appears to be an experimental case.

To summarise, therefore, the implementation of animal welfare policies within the hospitality industry involves firstly the need for companies to invest in their human capital through specialised training on the subject. Following this, the development and implementation of animal welfare policies entails interventions in managerial practices at all levels of business operations, in particular in business strategies, in the financial structure, in supplier selection and purchasing processes, in production planning and warehouse management, and, finally, in customer relations.

# **CHAPTER 6 – Limitations**

The study provided a comprehensive answer to the research question, but it is important to be aware of the presence of certain limitations in order to correctly read the results.

## 6.1. Sample Size and Composition

As reported in the methodology, the Simple Random Sampling method (Noor et al., 2022) was used in the selection of the sample of consumers to whom the questionnaire was to be submitted, allowing the creation of a varied and homogeneously distributed sample. This does not detract from the fact that the sample was exclusively selected on Italian territory, limiting the generalisability of the results.

With regard to the interviews carried out, the companies are all based in Italy, the selection was made only on companies already active in animal welfare and sought through the network of the case study company Sovrana Hotel. This may represent a selection bias and does not guarantee that the sample interviewed is representative of the entire hospitality industry.

Future research could expand the field of research both geographically, going beyond Italy alone, and from the hospitality sector, investigating managerial practices on the subject in different industries.

## 6.2. Data Collection Method

Thanks to the combination of interviews and the questionnaire, the research achieved a high level of depth on the subject. The questionnaire, however, may have suffered from a sub-optimal response rate, e.g. through the drop-out from the welcome page by a category of consumers who were not sensitive to the subject matter of the questionnaire they were about to complete, limiting the representativeness and generalisability of the conclusions. Similarly, the interviews, despite the large amount of insight provided, are influenced by the subjectivity of the interviewee, who may have personal interests in altering perceptions of reality, such as supporting their own corporate choices and strategies for reputational purposes, thus compromising the accuracy of the analysis.

### 6.3. Common Method Bias

This study, using a single quantitative data collection source, namely the Qualtrics questionnaire, is subject to common method bias. Harman's Test (Podsakoff et al., 2003) was performed, which demonstrated the absence of this issue, but future studies could perform other types of analysis aimed at further risk reduction.

## 6.4. Assumptions Checks

The linear regressions performed all reported significant results with no issues of multicollinearity, linearity, normality and homoscedasticity. It should be noted, however, that despite the significance, there are some results with low average levels of representativeness of the sample variance ( $\mathbb{R}^2$ ). This aspect must be borne in mind when reading the results of the qualitative research.

Future studies could look for other variables that may have stronger relationships than those analysed in this study, and that provide a greater representativeness of the sample variance.

#### 6.5. Time Limitations

A limitation is dictated by the narrowness of the time frame in which the research was conducted. The study was carried out over a period of months, therefore it was not possible to observe the evolution and results of the analysed practices over a longer period. This limitation is relevant in this category of studies, as the context, consisting of producers and animal farmers, hospitality companies, consumers and regulators, which was heavily investigated in this study in order to create a holistic view, is highly dynamic, with the associated need for companies to constantly vary their policies in order to respond to change and adapt.

It would be interesting to conduct studies analysing the long-term variations in the context of the subject analysed, and how, as a consequence, the managerial practices of companies have varied over time.

## 6.6. Data Interpretation

Rigorous analysis tools were adopted in the conduct of the study, but the conclusions always depend on the answers provided by the participants in the questionnaire and interviews; in particular, the qualitative data is always filtered by the subjectivity of the author's interpretation, which entails the risk of overestimating or underestimating certain aspects that emerged from the interviews themselves.

Subsequent studies could adopt additional qualitative tools to reduce the risk just exposed, such as focus groups to detect the interaction on the subject between the companies operating on the topic, or with field experiments, for the material verification of the application of the practices detected through the interviews.

Despite the limitations outlined above, the study provides a holistic view of the context in which hospitality companies must move to implement animal welfare policies, and provides an in-depth analysis of managerial practices aimed at the implementation of the aforementioned policies within the company structures, providing a starting point for subsequent studies on the subject.

# **CHAPTER 7 – Conclusions**

This study researched policies and managerial practices in the field of animal welfare adopted by companies in the hospitality industry, and the processes for their implementation within company structures. The analysis started from the study of the company protagonist of the data case Sovrana Hotel & Re Aqva SPA Rimini, Italy, and developed through an in-depth analysis of the context within which companies must move in this field, through necessary interventions within their entire supply chain.

The study was developed through an analysis of the literature on the supply chains of the two industries mainly impacted by animal welfare, i.e. the agri-food industry, which represents the producer, and the hospitality industry, which represents an intermediary processor of the raw material that will then be consumed by the end user. An in-depth literature review on animal welfare was carried out to complete the academic framework within which this study was developed.

Given the complexity of the subject matter and the context of analysis, a mixed (qualiquanti) method approach was chosen. This was developed through the administration of a questionnaire to a sample of consumers and interviews with companies in the hospitality and agri-food industry active in the field.

The analysis was developed through the study of the behaviour of the three main actors that have an impact on animal welfare and the related policy and managerial practices, namely, consumers, investigated through the administration of a questionnaire on a sample, the hospitality industry as a processing intermediary, through interviews with companies active in the field, and producers, through interviews with farmers and companies in the agri-food industry.

The study, therefore, first provides a clear picture of the subject and the context in which it develops, then codifies the policies and managerial practices currently in use within the hospitality companies active on the subject of animal welfare, and, finally, reports the operational process that allows their material application within the hospitality companies.

The consumer point of view that emerged is that of a user interested in animal welfare but with few information, finding shared evidence of information gaps on the subject. Furthermore, there is an important propensity to choose higher quality products, and animal welfare products are perceived to be of higher quality.

The producer's point of view shows that there are possibilities for animal welfare compliant productions, but the higher cost has important financial impacts on production, which determines the use of these animal farming systems only on companies whose ownership privileges the ethical aspect over the economic aspect of doing business.

The study of hospitality companies, in their interaction with the context, shows how complex the subject is and how little information transparency exists in the sector. The quality certifications, which should be a support, are many and unclear in the animal welfare standards guaranteed, making them, for the hospitality company that wants to have an impact, not a tool to rely on for the realisation of its corporate vision. For these companies, therefore, it is necessary to achieve high levels of animal welfare competence, so that they can actively select suppliers according to their own animal welfare standards. This entails investment in human capital, both through training and initial selection.

The implementation process in the company was found to have a common framework, consisting of six distinct consecutive phases: training, policy creation, supplier selection, supply management, raw material processing and customer relations.

Given the multidimensional impacts of the choice to adopt animal welfare policies in the company, it emerged that in the hospitality industry, companies active in this field have strong visions focused on the ethical conduct of their activities that drive business life on all aspects, resulting in high levels of CSR-compliant practices and behaviours.

The research provides a picture of the current state of play of a new and expanding subject within an evolving and very dynamic context. This paves the way for future studies that can analyse the results over time of the policy implementations detected in this study, and the analysis of how these vary over time; analyse the existence of applications of the animal welfare matter within other industries; study solutions that guarantee more information and transparency on the matter in consumers and hospitality companies, such as clear animal welfare certifications and the implementation of centralised traceability systems of the entire food chain, also through the intervention of institutional entities that, with their name and image recognised by society, can guarantee the correctness and credibility of the information received by the market.

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