Hotel clustering & sustainability: A comparative case study of European eco-certified clustered and unclustered hotels

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Affidavit

I hereby affirm that this Bachelor's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

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Abstract

The hospitality industry is predicted to grow in the near future, particularly in the countries where it represents the main source of income. As pollution is currently one of the main global challenges, it is necessary to incorporate sustainability in hotel's business strategy. In the last few decades, hotels have started networking with surrounding enterprises, which has led to the formation of hotel clusters. The phenomenon of clustering is correlated with an increase in innovation due to the constant interactions among similar businesses which share their skills, knowledge, resources, intellectual capital, and promote competition.

Therefore, the aim of this research is to assess if being part of a hotel cluster improves hotels' performance and if hotel clusters play a role in promoting sustainability. This was done by developing a set of criteria to determine whether the five selected European eco-certified hotels can or cannot be considered part of a hotel cluster. Subsequently, primary data were collected and analysed using a qualitative research approach to investigate the relationship between operating in a hotel cluster and hotels' success, as well as between hotel clustering and the implementation of the three sustainability pillars. The results support the literature as clustering gives hotels competitive advantage over individual hotels. Moreover, eco-certifications improve hotels' image and guest satisfaction. Hotel clusters can promote sustainability, yet hotels' environmental impact does not depend on whether they are clustered or not.

Keywords: *green hotels, clustered hotels, unclustered hotels, hotel clustering, hotel industry, cluster policies, government role, innovation, sustainability, CSR, eco-certifications, hotel performance*

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1 Introduction

1.1 Background

Economic clusters can be defined as agglomerations of interconnected businesses in a certain industry and located in a limited geographical area (Delgado et al., 2014). They are characterised by constant share of skills, knowledge, resources, technology (Delgado et al., 2014), which benefit all the cluster members. The main advantages brought by agglomeration concern firms' costs and productivity (Marshall, 1920, cited in Delgado et al. 2014), as well as competitive advantage due to geographical proximity (Nordin, 2003). However, functional clusters tend to go beyond a specific region connecting companies located in different areas (Power & Malmberg, 2005). Clusters can be seen in any economic field, including the tourism industry, where the reliance on clusters is increasing, however there is still limited research available on this topic (Nordin, 2003). The tourism industry is predicted to grow from $3486.77 billion in 2020 to $5297.78 billion by 2025 (Research & Markets, 2021), which makes it important to better understand networking in tourism to allow current and future businesses to take advantage of the potential of this industry. Several studies, including Nordin's (2003), proved that collaborating with similar businesses has a positive relationship with added value for both economic entities and the geographical location as a tourist attraction. This, combined with government support through cluster policies, leads to an improvement in hotels' performance (Rodríguez-Victoria et al., 2017). With respect to this, cluster policies can be defined as a set of government regulations that aim at easing cluster formation and strengthening existing clusters by promoting innovation and development, especially in emerging industries (European Commission, 2016). In this paper, the term 'innovation' refers to using different business practices which modernise organisations, products and services to improve outcomes (Nur Fadiah et al., 2016).

It is well known that human activities have always been detrimental for the environment, as they deplete natural resources to generate profit. Even though tourism can be used positively to raise awareness on environmental issues and promote investments in habitats' conservation, it is gradually damaging the natural resources which it relies on (Rabbany et al., 2013). Recent studies concluded that

pollution creates a vicious cycle in the tourism sector, as the latter releases a substantial amount of CO_2 in the air, which is detrimental for the environment and has a negative impact on tourists' demand (Yan et al. 2019, cited in Eusébio et al., 2021). Zhou et al. (2018) also observed that when pollution is low tourists do not perceive it, however when that increases it interferes with tourists' decision to visit certain places (Eusébio et al., 2021). Because of this, policy makers in highly-polluting countries, such as China, are trying to limit pollution to protect the environment and increase quality of tourism (Xu et al., 2019).

The hotel industry is one of the main sources of pollution of the tourism industry, however it is also the one that offer the greatest potential to implement environmentally-friendly business practices, which is known as 'green hospitality' (Duric & Potočnik, 2021). For instance, hotels can effectively reduce water consumption through water-efficient devices and linen and towel reuse programs, and energy consumption through energy-efficient appliances, including LED and motion sensors (Abdou et al., 2020). Without eco-friendly practices, the hotel industry would not be able to prosper long term, because the depletion of the resources required would jeopardise the whole industry development. Therefore, it has become necessary to implement sustainable initiatives (Abdou et al., 2020). The benefits of becoming a green hotel include lower procurement costs and energy usage, lower waste processing costs, lower health risks for employees, higher employee commitment, which improves service quality. On the other hand, if green practices are not implemented properly, they might lead to lower market share, lower employee loyalty and higher turnover rates, poor brand image (Wu, 2021).

In economics, sustainability means using current resources in a way that does not jeopardise future generations' ability to meet their necessities (Bogdan-Vasile et al., 2018). This concept is subdivided into three main sustainability pillars, i.e., environmental, social and economic. The first pillar refers to environmental impact of firms due to water and resources usage and emissions of pollutants (Beattie, 2021). There is often a direct relationship between lower environmental impact and lower costs for companies, which can be achieved by reducing packaging, energy consumption, and limiting wastes (Beattie, 2021). The social pillar is related to workers' wellbeing and companies' efforts to maintain a pleasant work environment,

as well as their positive contributions to the local, national or global community and their stakeholders (Beattie, 2021). Finally, the economic pillar concerns profitability, which is why it is considered essential by any economic entity, and it is dependent on government decisions (Beattie, 2021). Even though higher profits cannot always be achieved if sustainability is prioritised, it is important not to abnegate the other two pillars, since any social or environmental damage would harm the companies' profitability long term. Moreover, it has been determined that when hotels have strict quality standards to meet environmental objectives, their performance improves because hotels' operations become more efficient, and guest satisfaction increases, which in turn strengthens their brand image (Duric & Potočnik, 2021). Therefore, for the sake of this study, the main focus is on environmental sustainability.

1.2   Research aim

Since the available research suggests that being part of a cluster and implementing eco-friendly business practices is beneficial for both society and hotels, which gain competitive advantage by lowering their environmental impact and thus having lower costs and higher investment returns (Slavova-Georgieva & Bankova, 2017; Hussein et al., 2018), this study focuses on the environmental pillar of sustainability to identify the potential relationship between operating in a cluster and eco-friendly business practices. Even though the environmental sustainability pillar in the context of hotel clustering represents the focal point in this paper, the economic and social pillars are examined to better assess hotels' commitment to sustainable development. Currently, there is no significant evidence that clustering helps promote CSR in Italy, Spain, and Austria. Given that limited research has been conducted on hotel clusters and their link with eco-friendly business practices, this study contributes to filling that research gap. Moreover, this study takes into account government role to analyse its impact on sustainable development and the promotion of hotel clustering. This research is based on the theoretical framework of Porter's Diamond Model of competitiveness, which explains that partnering with similar businesses stimulates innovation, communication and increases service quality due to higher support, while increasing competition (Nordin, 2003). This model includes four factors leading to clusters, i.e. factor conditions, demand conditions, context for firm strategy and rivalry, related and support industries (De Bruin, 2018).

As previously mentioned, there are still limited data regarding hotel clusters, especially in Italy, where the tourism sector is responsible for 13% of gross national product (Dassi, 2020), but also in Spain and Austria. Green hotel clusters have not been studied yet, which presents an opportunity to investigate an extremely recent phenomenon in the hospitality industry. Therefore, in order to validate the findings and the theories included above, this study assessed the impact of hotel clustering in Italy, Spain, and Austria through a comparative case study focussing on five eco-certified hotels' business practices and performance. First of all, a list of criteria was developed to determine if the five hotels are part of a cluster, and subsequently primary data were collected using a qualitative approach and then a SWOT analysis was used to explain the findings. In addition to this, it was investigated how clustering can spread sustainable hotel practices and how these are perceived by tourists. The results will help the five green hotels improve their business strategy and benefit the global hotel industry by providing recommendations applicable to any hotel. Furthermore, this paper will be useful to have a better understanding of hotel clusters' dynamics, also by taking into account the Italian, Spanish, and Austrian government's influence on cluster formation.

With the purpose of doing so, this paper answers the following research questions:

1. How does the presence of hotel clusters impact their performance?
2. How can clustering affect the sustainability of hotels?

Based on the available literature and Porter's Diamond Model, the clustered hotels chosen for this case study are expected to have competitive advantage compared to the unclustered hotels. Moreover, clustering together with government support is predicted to facilitate the implementation of eco-friendly business practices in hotels and reduce the latter's costs.

2 Literature Review

2.1 Economic clusters

The development of economic clusters began to be studied in the 19th century, when Alfred Weber, a German economist, started studying the phenomenon of clustering. In 1990, he developed the Industrial Location Theory, which explains the physical proximity of economic clusters through the variables of 'labour costs' and 'transportation costs'. Firms tend to choose a location where labour and transportation costs are relatively lower to other location options; the decision to prioritise labour or transportation costs depends on the marginal savings they offer: a firm chooses the location that brings the higher reduction in spending for either labour or transportation (Coe et al., 2013). Clustering soon became a business strategy to gain competitive advantage by acquiring the surrounding economic entities' knowledge and business practices, as well as sharing highly-skilled human capital because the market in which cluster operates tends to be more flexible and enhance the flow of resources (Coe et al., 2013). The economic cluster with the longest history is the high-tech cluster of Silicon Valley, California, where a high number of similar businesses operate, while competing and helping each other. Economic clusters are now present within any industry, and they can be the result of firms interacting and cooperating with each other or the outcome of regional cluster policies. Since they are linked with faster economic development and innovations, governments try to design specific programmes and initiatives to encourage businesses' training, networking and partnerships (Jednak et al., 2018).

2.2 Hotel clusters and their criteria

Even though it is not possible to determine which cluster was the first one to develop in the hotel industry, hotel clustering has become a very common practice in the last few centuries. Nowadays, hotel clusters are present in all continents because of the benefits cluster members gain, which include: shared knowledge and resources, direct access to highly-skilled workers and the cluster's reputation (Slavova-Georgieva & Bankova, 2017). These factors have made high-tech firms in Silicon Valley among the most profitable and competitive of the whole industry on a global scale. The same phenomenon can be observed in the tourism industry, even though it has not been

thoroughly researched, yet it is significantly contributing to the industry's development and growth (Rodríguez-Victoria et al., 2017). In spite of the differences existing in clustering between manufacturing and tourism, both industries benefit from collaborating with neighbouring enterprises in the same way, and the interdependence among companies is key in any type of cluster (Nordin, 2003). In the 19th century, the economic Alfred Marshall began studying the impact of networks among economic entities on the latter's performance, stating that each enterprise contributes to the others' success (Nordin, 2003). In hospitality, the two key factors which enable hotels to succeed are strategic location and service quality, which depend on the managers' expertise and the personnel's competency (Cheng, 2013). Hotel clusters rely primarily on those two key factors to establish themselves in the market.

When trying to identify a cluster, it is to be noted that clusters do not have well-defined borders, given that each member has several linkages, which keep changing because clusters are extremely dynamic: every year some linkages stop existing and new ones are established. These linkages include all companies' stakeholders, e.g., suppliers, customers, competitors, third parties for outsourcing. Because of this, related industries play a significant role in clusters' success, as clusters are usually specialised in determined products or services and therefore, they need to rely on cross-industry value chains to keep innovation levels high (European Commission, 2016). Swedish researchers Alfred Malmberg and Dominic Power (2005) enlisted the criteria that should be met by agglomerations of similar economic entities to be considered clusters. The first criterion is having a group of interrelated enterprises in a limited geographical location (Power & Malmberg, 2005). However, as explained previously, clusters show a high degree of flexibility, which makes it not always possible to circumscribe a geographical area. The second criterion concerns the collaborations among the cluster members to share their resources (Power & Malmberg, 2005). This concept presents some limitations because there is not a systematic way of assessing how much cluster members cooperate or compete with each other, since some benefits are generated by indirect forms of collaborations. For instance, a company might train their employees to improve their performance and the company's profitability; however, those workers might decide to resign and start working for another company which benefits from having new employees who have

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already the necessary skills to perform their tasks. This share of labour was not predicted and therefore the first company did not want to directly help the second one. In the majority of cases, the degree to which a company's performance depends on the other neighbouring enterprises is not measurable. The third criterion is the presence of cluster policies or cluster initiatives which make all cluster members take a similar direction (Power & Malmberg, 2005). Not all clusters have their own policies, given that the government should define the agglomerations of similar businesses as clusters, which does not always happen. Nevertheless, cluster members should acknowledge their being involved in economic linkages to take advantage of the potential that clustering offers. Hence, each cluster can develop its own initiatives and have self-regulatory measures to enhance the development of the entire cluster (Power & Malmberg, 2005). The last criterion to be met by a cluster to be considered as such is being competitive and innovative to be profitable (Power & Malmberg, 2005). However, this concept presents the issue of being circular: clustering increases competition (Rodríguez-Victoria et al., 2017), but agglomerations are considered clusters If they show competitive success.

CRITERIA	DESCRIPTION
1. Physical proximity	Similar businesses need to be located in the same geographical area.
2. Linkages	These companies need to cooperate vertically and horizontally and interact with each other.
3. Self-awareness	The cluster members need to be aware of being part of a network and have shared policies.
4. Performance	The cluster needs to be profitable as a whole, in terms of innovation and competitiveness.

Table 1. Criteria met by clusters (representation created by the author: 20/12/2021)

2.3 Porter's Diamond Model

The economist Porter played a significant role in explaining firms' aggregation and linkages, understanding that businesses' success is directly linked to the environment in which they operate (Nayal, 2020). Physical proximity leads to frequent social interactions, which result in increased trust among cluster members and further benefits, including job creation, patenting, the development of new enterprises (Delgado et al., 2014). The graph below illustrates Porter's Diamond of competitiveness, which contains the four constructs responsible for companies' competitiveness:

Porter's Diamond Model

CONTEXT FOR FIRM STRATEGY & RIVALRY

*A local context that encourages investment and sustained upgrading
-eg intellectual property protection
*Open vigorous competition among locally based rivals

FACTOR (INPUT) CONDITIONS

*High quality, specialized inputs available to firms:
-human resource
-capital resources
-physical infrastructure
-administrative infrastructure
-information infrastructure
-scientific & technological infrastructure
-natural resources

DEMAND CONDITIONS

*A core of sophisticated and demanding local customer(s)
*Unusual local demand in specialized segments that can be served nationally or globally
*Customer needs that anticipate those elsewhere

RELATED & SUPPORTING INDUSTRIES

*Availability of capable, locally based suppliers and firms in related fields
*Presence of clusters instead of isolated industries

Source: Porter, M.E. 1990

Figure 1. Porter's Competitiveness Diamond (Nordin, 2003)

This model presents four agglomeration drivers: factor conditions, demand conditions, context for firm strategy and rivalry, related and support industries. Factor conditions are related to the fact that specialised factors have a more significant impact than basic factors in increasing companies' competitiveness (Cuofano, 2022). Specialised factors are unique in each country and derive from local skills, which are determined by individuals' education and the infrastructures and technologies that the country offers (Nayal, 2020). In the tourism sector, the main factors for its development are natural, cultural and archaeological resources, but competitive advantage is achieved through efficient specialised factors, such as highly-skilled

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employees for tourism businesses, solid capital markets to fund tourism initiatives and projects, support services from the public sector, or easiness to access natural resources (Nordin, 2003). Because of this, it is essential to improve these aspects to increase a country's or region's competitiveness through effective training programmes for the tourism industry, constant research, institutions to gather and spread knowledge, policies supporting innovations and efficient production processes (Cuofano, 2022).

As for demand conditions, it was found that when local business entities are competitive, local demand increases (Nordin, 2003). Since tourism enterprises' physical proximity improves their communication channels, responsiveness and incentivises innovation, it also gives those enterprises competitive advantage, which stimulates demand from domestic tourists. Furthermore, it is necessary to allocate tourism business in markets offering great potential to grow, where new trends are constantly arising and enterprises have the opportunity to anticipate and meet customers' needs (Nordin, 2003).

Porter's third agglomeration driver refers to rivalry at a national, when domestic companies try to achieve higher profits and quality standards in relations to their neighbouring competitors, and at an international level, when countries compete as destinations (Cuofano, 2022). Finally, the last agglomeration driver of related and support industries refers to the support that cluster members receive from industries which offer them opportunities to learn, grow, cooperate and communicate. More concretely, this means that hotel and restaurants should collaborate and partner with well-performing training schools, food suppliers, architects specialised in tourism projects (Nordin, 2003).

If it is true that Porter's theories represent a solid theoretical framework to explain the mechanisms behind clustering and its advantages, it is also true that his models have been criticised because the situations described in his papers are rather idealised and superficial, and they do not reflect real-world clusters (Nordin, 2003). In this model physical proximity plays a key role, however it is important to mention that clusters are likely to have global connections and often they are not confined to a limited geographic area (Power & Malmberg, 2005). Moreover, other researchers found Porter's definitions of clusters very broad, which allowed policy-makers to have

different interpretations of the concept of clustering to match their purposes (Cuofano, 2022). Additionally, the fact that clustering improves cluster members' profitability does not mean that promoting clusters is the most effective strategy to boost a country's economy (Nordin, 2003). The reason behind this is that it is difficult to assess the degree to which being part of a cluster is correlated with economic growth, innovation and competitiveness; and it should be taken into account that even clusters have their own life cycle, hence their success does not last forever (Nordin, 2003).

2.4   Impact of economic clustering on hotel performance

2.4.1   Advantages of clustered hotels

Hotel clustering has a positive impact on hotels' performance from several points of view. First of all, the benefits arising from clustering concern those within the network, including having the same management strategies and shared values, which makes it easier to achieve set objectives (Shankar, 2010). Going beyond the cluster, all the members benefit from a stronger brand image and hence they attract more investors (Shankar, 2010). Each cluster member is motivated to improve its operations thanks to its close competitors and implement CSR to respect its cluster policy (Shankar, 2010). The latter can be defined as a set of government actions whose goal is to strengthen an existing cluster or form new clusters; they usually stimulate innovations and cooperation (European Commission, 2016). These benefits can be summarised by the graph below:
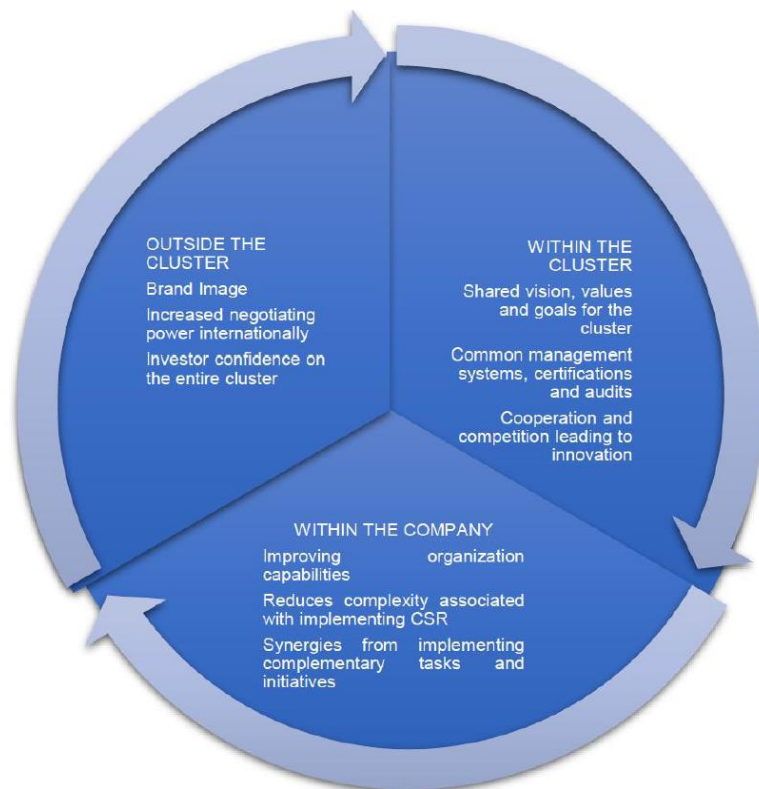
Source: adpted by Høivik, W.; Shankar, D., 2010

Figure 2. Benefits of Corporate Social Sustainability on clusters (Slavova-Georgieva & Bankova, 2017)

According to Ktsikis et al. (2012), hotel clustering tends to impact three main aspects of hotels that are part of a network. The first one is related to productivity, since being part of a cluster means that the production and performance of every single member is monitored (Katsikis et al., 2012). This, in turn, encourages hotels to improve their standards and operations to benefit the entire cluster. The second way in which clustering impacts hotels' performance is by enhancing innovation (Katsikis et al., 2012), which has been determined crucial to succeed in the hospitality industry (Rodríguez-Victoria et al., 2017).

Concerning innovation, the two main types that have been proved to determine firms' success are administrative and technological innovation (Zawawi et al., 2016). The first one refers to changes in the social structure of an organisation and depends on corporate culture, e.g. rewarding the initiatives and ideas of employees, putting in place new processes (Zawawi et al., 2016). The second one influences the processes of basic output, e.g. creating and/or using new tools, software or products (Zawawi et

al., 2016). This occurs because cluster members share up-to-date information on a regular basis about market trends and available technologies, as well as adapting to these changes (Katsikis et al., 2012). The European Commission (2016) stated that European clusters have developed 87% of total patents, and they enhance growth and tend to offer higher wages due to their higher productivity: 11% higher than average. For example, Tseng et al. (2018) observed that increased innovation resulted in higher revenues for hotels in Taiwan (Rodríguez-Victoria et al., 2017). The third effect of clustering is the formation of new hotels due to the fact that the cluster becomes a local market which can take advantage of gaps in the market and specialise in offering unique services (Katsikis et al., 2012). Moreover, sharing resources and skills among hotels part of a cluster enables them to easily expand their business and found new hotels (Katsikis et al., 2012), as well as facilitating the emergence of businesses in new industries connected to the cluster's industry (European Commission, 2016). Furthermore, several studies found that hotels that are part of clusters are more profitable than those operating individually (Rodríguez-Victoria et al., 2017). This is true also for new businesses, given that their likelihood to be profitable and stay competitive in the market is higher if they are part of a cluster (European Commission, 2016).

Despite the strong evidence proving that clustering is beneficial for hotels, the location of the latter needs to be taken into account when analysing the factors which enable the hotel to be successful: having access to natural resources is decisive to achieve competitive advantage (Rodríguez-Victoria et al., 2017). Orfila-Sintes and Mattsson (2009) also concluded that the infrastructures and institutions of a location tend to have an impact on hotels' competitive advantage (Rodríguez-Victoria et al., 2017). For instance, a study from Chung and Kalnis (2001) found that urban areas of Texas benefitted less from clustering compared to urban ones (Rodríguez-Victoria et al., 2017). Because of this, the effect of innovation due to agglomeration might be difficult to measure, given that the environment in which hotels operate can be more decisive. Moreover, it has been observed that competitive advantage of emerging tourist destination increases through agglomeration and innovation (Rodríguez-Victoria et al., 2017). However, it is extremely important that hotels in emerging destinations establish strong linkages to work on innovations as one entity in order to become more competitive (Rodríguez-Victoria et al., 2017).

As for marketing, being part of a cluster increases each member's visibility because the name and the reputation of the cluster attract international customers without needing to invest a lot of resources. Moreover, guests staying in a hotel which is in a cluster are exposed to the other hotels, which increases their brand awareness and might make them consider other member hotels for their future stay (Andersson et al., 2004). This is also very helpful for small hotels which have limited resources to dedicate to marketing; in their case, working in the interests of the entire cluster benefits them and the other hotels (Tu, 2011). The figure below represents other significant benefits of agglomerating with other similar businesses, in the context of marketing.

General benefits	Functional benefits	Marketing complementarities	Process-oriented benefits
• Recognition • Reduce risk • Reduce complexity • Provide driving force and direction • Managerial tool • Reinforce identification • Create civic pride	• Talent attraction • Attracting investments and new firms • Internationalisation and export promotion • Sales • Showcasing internal importance within MNCs • Expressing CSR • Lobbying and opinion forming	• Multiple vendors in one area • Expand the market for specialty products • Increase attractiveness to buyers • Joint marketing mechanisms • Marketing know-how spill overs	• Clarify strategic goals • Improved strategic focus • Driving force for internal development work • Identification of stakeholders • Better sense of place • New interaction structures and networks • Improve interaction and relationships • Heighten self-knowledge and self-awareness

Table 2. Clusters' advantages in marketing (Andersson et al., 2017)

In addition to this, a cluster is often accompanied by the development of a regional brand, which is the cluster's image. This is more competitive than individual enterprises' brands, therefore they strengthen the brand image of each cluster member and promote cooperation (Tu, 2011).

2.4.2 Disadvantages of clustered hotels

Hotel clustering is responsible for generating several advantages for hotels, however there are also negative effects on hotels and the overall economy of a country. A study conducted by Marco-Lajara et al. (2014) stated that tourist destinations with a high population in Spain did not benefit from clustering (Rodríguez-Victoria et al., 2017). Moreover, if hotels operate in geographical areas where external resources are abundant, the innovations of the hotel cluster will not attract a significant number of tourists because the latter will probably rely on external resources (Rodríguez-Victoria et al., 2017).

One of the main disadvantages brought by hotel clusters is that it might reduce external competition, which might result in obsolescence of the entire cluster if this does not keep innovating (Mazur et al., 2016). For instance, this scenario occurred in the marble industry in Sardinia, Italy, which was famous at an international level for its highly advanced techniques to process marble. However, when other countries including Spain and France copied those Italian firms, the latter's revenues decreased drastically because international clients became interested in other producers. As a consequence, the majority of marble processing firms in Sardinia failed. Another disadvantage of clustering is represented by hotels' reliance on local suppliers, which means that if the latter stops operating, the hotels are financially damaged (Marginean, 2009). On the other hand, other studies found that clusters tend to rely on suppliers located far from them (Power & Malmberg, 2005). Moreover, it was observed that depending on the other cluster members to be profitable is counterproductive because each single company cannot determine its own success, which might decrease its potential perspectives for the future (Mazur et al., 2016). This is also correlated with a lower power of hotel clusters' members to set their rates, as all members might have to follow a shared policy and strategy which reduces their independence (Guinefolleau, 2019).

The characteristic of clusters of being relatively closed networks make it difficult for new hotels to enter it, as clusters have a structure which cannot always be altered. This uniqueness in its system might not enable cluster members to make future forecasts, create new business strategies or measure their profitability because data collection becomes a more complicated process, given that hotel clusters are not

always comparable with their competitors that do not operate in clusters (Pires et al., 2013). Comparison is also difficult between two clusters because each of them is influenced by several variables which cannot be always controlled (Mazur et al., 2016). Furthermore, the fact that hotel clusters generate a significant amount of wealth in a circumscribed geographical area might lead to increased inequality (MacKinnon & Cumbers, 2018). For example, this was the case with the high-tech cluster of Silicon Valley, where housing prices increased significantly because the region became wealthier than surrounding areas, therefore low-income workers found it hard to access it. In other words, clusters might contribute to marking social classes, going against the social sustainability pillar.

Another study by Marginean (2009) explained that clustering can be detrimental for its geographical region when new technologies develop but the cluster cannot adapt itself to those changes. In other words, if its reliance on old technologies cannot be overcome, the cluster is outperformed. This means that it is necessary to predict trends and adapt to society's and market changes. This finding is also supported by another study, which confirmed that clusters might face technology obsolescence losing competitive advantage (Mazur et al., 2016). Moreover, clusters' recognition at an international level is often exaggerated because there is a limited number of clusters which are known worldwide (Marginean, 2009). As a consequence, it is very difficult to achieve a top position in international markets as an agglomeration. Finally, during economic recessions, unemployment can be higher in economic clusters (Marginean, 2009).

2.4.3 Advantages of unclustered hotels

Having explored the advantages and disadvantages of hotel clustering, it is important to identify key advantages of hotels operating independently, i.e., outside of a hotel cluster. Even though more research on unclustered hotels needs to be conducted to obtain more precise results, previous researchers have analysed the performance of individual hotels compared to that of hotels with partnerships.

First of all, unclustered hotels are able to personalise their services more easily, as they are independent and do not need to follow shared policies or management strategies designed by a hotel cluster (Guinefolleau, 2019). Because of this,

unclustered hotels can tailor their offering based on their target segments and better meet the needs and wants of their guests. This improves the hotel's reputation and increases its performance, as it is able to respond to customers' expectations (Guinefolleau, 2019). Analogously, this flexibility applies to the management, as managers of independent hotels do not need to consult their partners when a change in strategy needs to be made. This increases agility, as decisions can be taken in a shorter period of time. This is very important in the hotel industry because it requires high adaptation capabilities (Butler & Braun, 2014; cited in Kapichin, 2020).

Another advantage of relying on an independent business strategy is that managers can be more creative and make the hotel more unique (Guinefolleau, 2019), which might not be possible in clustered hotels with strict parameters to meet. Having more freedom, unclustered hotels can change their operational processes more frequently, which might lead to useful innovations (Rajawat, 2020). However, it has been proved that clusters foster innovation due to better access to resources and more cooperation and competition (Nordin, 2003). Additionally, some clustered hotels partner with their competitors to only share basic information or benefit from the cluster's reputation, but they keep operating as if they were independent because each cluster member has its own business strategy. Because of this, each clustered hotel's manager is still able to make their own decisions independently (European Commission, 2016). In some cases, cluster members are subject to annual or monthly fees, which independent hotels do not need to pay; therefore, unclustered hotels' costs are lower (Butler & Braun, 2014; cited in Kapichin, 2020).

2.4.4 Disadvantages of unclustered hotels

On the other hand, not relying on hotel partners might increase individual hotels' likelihood to fail if they do not have the necessary resources to be competitive. For instance, this refers to having adequate knowledge and skills to run a hotel; if managers are not well-prepared, they should consider partnering with other companies, as being part of a cluster allows all members to share information, skills, resources, technologies (Stone, 2018; cited in Kapichin, 2020). Moreover, having an effective marketing strategy is crucial to increase brand awareness and strengthen the hotel's position in the market. As a consequence, individual hotels that do not invest effectively in marketing might not be able to increase their market share sufficiently,

and since they are not part of a cluster, they do not benefit from mutual promotion and direct and indirect marketing among cluster members (Butler & Braun, 2014; cited in Kapichin, 2020). Traditional marketing strategies are likely to become ineffective in the long run, therefore it is recommended to rely on stronger marketing tools, which require significant investment and joint efforts of different companies (Ansari, 2021). To stay competitive, individual hotels might have to increase marketing spending, which results in higher costs for unclustered hotels. Similarly, as individual hotels do not benefit from shared resources, as explained previously, they might need to hire external experts and invest more to find the strategy that best fits their business goals (Ting, 2017; cited in Kapichin, 2020).

According to Holverson and Revaz (2006; cited in Kapichin, 2020), independent hotels do not benefit from marketing intelligence which hotel clusters use to analyse the market and gain competitive advantage over their competitors. Furthermore, clusters with detailed policies and strict standards might feel constrained to follow a pre-set strategy (Guinefolleau, 2019). Another disadvantage consists in not having direct access to skilled labour (Ansari, 2021), which is one of the main positive effects of hotel clusters (Nordin, 2003). All these factors combined can make it more difficult for unclustered hotels to innovate, as they lack the necessary resources (European Commission, 2016). Moreover, a recent study concluded that partnering with other hotels generates benefits that exceed the costs of clustering, it is recommended to establish partnerships to increase occupancy rates and Average Daily Rate (Hua et al., 2017; cited in Kapichin, 2020). Enz and Canina (2011; cited in Kapichin, 2020) found that clustered hotels benefit from increased RevPAR, even though that was contradicted by O'Neill and Carlbäck (2011; cited in Kapichin, 2020), claiming that independent hotels' RevPAR tends to be higher.

2.5 Sustainability

2.5.1 The three sustainability pillars

The concept of sustainability comprises three pillars, i.e. environmental, social, and economic. The environmental pillar refers to protecting the environment, its

resources and ecosystems. In order to do so, technology is essential to develop advanced business models with a lower environmental impact, such as supply chains that limit wastes and use mainly recycled and recyclable materials for production and packaging. The social pillar's aim is to protect the human capital by supporting employees, stakeholders, and the local community, which can be done through insurance, development opportunities, sponsorships, social events, and a corporate culture that prioritises people's wellbeing (Beattie, 2021). Economic sustainability means achieving profitability and implementing the environmental and social pillars, hence having a strong corporate governance and effective risk management is essential. Technologies help businesses manage risks by providing data about changes in environmental conditions that might jeopardise their supply chain and operations. Moreover, economic sustainability means that companies need to respect the government's environmental regulations and stay competitive (Hunter, 2021).

Currently, there are no studies researching only on the economic pillar, as it can be applied only if the other two pillars are in place (Ranjbari et al, 2021). The combination of the environmental, social and economic sustainability leads to the 'integrated sustainability', which balances the objectives of all the three pillars (Ranjbari et al, 2021). Given that the available literature suggests that hotels benefit most from environmental sustainability in terms of guest satisfaction and brand image (Duric & Topler, 2021), the following sections of this paper focus on the environmental pillar, even though the other two pillars are taken into account for a more complete overview of hotels' performance.

Figure 3 illustrates the components of each sustainability pillar, with the resulting outcome when two pillars are combined. To achieve fully sustainable development, all the three pillars need to be present and be achieved in synergy. Examples of social sustainability include: education, quality of life, equal opportunity, law & ethics; economic sustainability is achieved through smart growth, cost savings, R&D spending, and long-range planning; environmental sustainability comprises environmental protection, resource management, and habitat restoration and preservation (Hafizyar & Dheyaaldin, 2019).
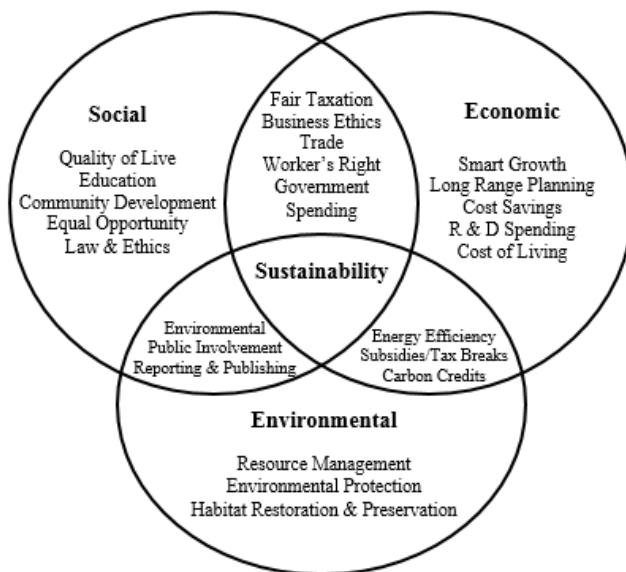
Figure 3. 3 sustainability pillars (Hafizyar & Dheyaaldin, 2019)

2.5.2 The implementation of Corporate Social Responsibility: a critical view

The concept of sustainability covers Corporate Social Responsibility or CSR, which has become extremely used in any industry to gain competitive advantage. CSR means treating key stakeholders ethically and responsibly; it is closely linked to all the three sustainability pillars, especially to social and environmental sustainability, and the overall aim is to have a positive impact on society. Researcher Carroll argued that CSR includes philanthropic, ethical, legal, and economic responsibilities for businesses. Figure 3 shows Carroll's pyramid with a brief clarification on each type of responsibilities (Hopkins, 2014).
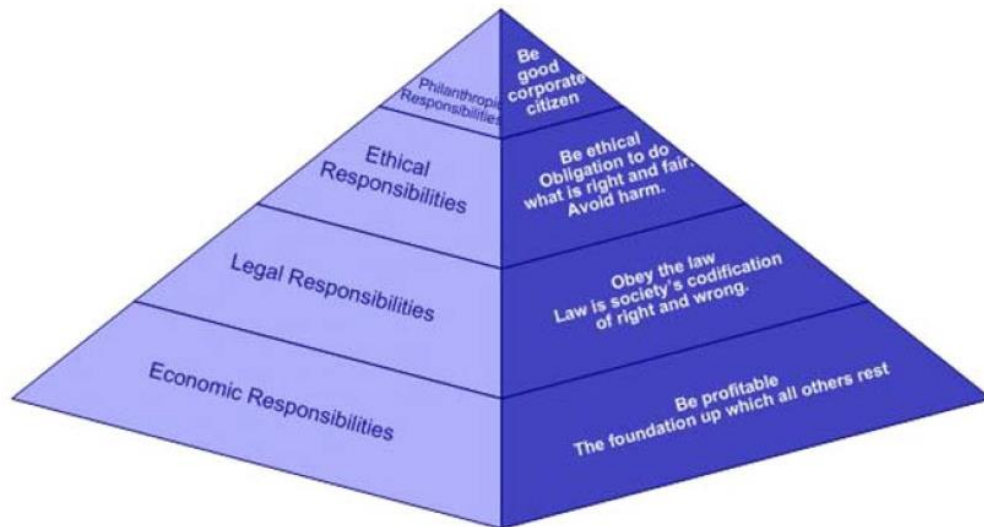
Figure 4. Carroll's Pyramid of CSR (Hopkins, 2014)

Therefore, companies should create their own policy based on their corporate culture and values in order to benefit the entire organisation (Hopkins, 2014). One of the advantages of incorporating CSR in a company's business strategy is having a stronger brand image because acting responsibly means contributing to the local community, the environment, respecting the human capital, which improves the reputation of the company. This, in turn, makes a company more competitive, which attracts more customers increasing revenues and investors giving a company better access to capital. The fourth positive effect is seen in operational costs, which tend to reduce with CSR, because eco-friendly materials and products are preferred to have a lower environmental impact. The fifth advantage concerns employees, who feel more respected and valued and hence are more satisfied with their job, which leads to lower turnover rates. This often results in higher productivity and more innovation, since employees are more committed and are given the tools to develop new skills, which lower costs, increase revenues, and allow to be profitable in the long run. Among other advantages, there is discouraging government intervention because ethical businesses benefit the local community and are likely to be affected by government regulations (Asemah et al., 2013).

In spite of the benefits it generates, CSR should be viewed more critically because there are also risks associated to it. If implemented in the wrong way, it can lead to

competitive disadvantage. This is because negative CSR activities have a stronger impact than positive ones, according to Sen and Bhattachar (2001). For instance, David (1973) and Ite (2004) argue that companies have higher costs when incorporating CSR in their business strategy. As a consequence, firms might need to increase their prices to compensate for the higher costs they incur, reducing the perceived value customers get from the product (Bour, 2012). Moreover, a company's efforts to implement CSR might jeopardise the company's offering in terms of products and services, which might lead to lower guest satisfaction and loyalty. Consequently, a business would be less profitable and have a negative impact on society because the government would collect less income taxes.

In addition to this, a phenomenon called 'greenwashing' has developed, which means providing customers with misleading information to make products appear more sustainable and increase profits and improve brand image (Windeck, 2019). Similarly, companies might try to improve their reputation through short-term charitable projects, which however does not mean that they are committing to CSR, as they do not solve social or environmental issues. According to the same researcher, one of the most common reasons of failure in implementing CSR is poor management, which is decisive when it comes to making changes within an organisation to operate more responsibly (Sarmiento del Valle, 2011). Because of these reasons, implementing CSR does not always lead to success and higher profit, therefore companies should design a CSR policy that suits their characteristics and overall business objectives to experience the benefits described previously.

2.5.3   Sustainability and hotels' customer buying behaviour

Buying behaviour can be defined as individuals' choices when making purchases for personal use (Durmaz & Tasdemir, 2014). Consumers go through a process called Consumer Buying Process when making purchasing decisions, which is divided into five stages: problem recognition, information search, evaluation of alternatives, purchase decision and post-purchase behaviour. Each purchase requires higher or lower consumer's involvement depending on what they want to purchase (Quazzafi, 2019): in the case of selecting a holiday destination, involvement tends to be high, which is why the potential buyer seeks more information about the company and the service and evaluates alternatives more carefully. In the first stage of the Consumer

Buying Process, consumers become aware of needing a product or service, which could be a holiday in the context of this paper, therefore hotels try to adapt their marketing strategies to meet consumers' needs or they trigger needs by anticipating consumers' demand. During information search, consumers collect information about brands from different sources, which is then used in the third stage to find the best option. With respect to this, consumers' beliefs and attitudes towards a certain brand play a significant role (Kotler & Keller, 2016), which is why hotels should work on their brand image and adopt strategic measures to become more attractive. Subsequently, in the fourth stage, a purchase decision is made, i.e. a holiday destination is selected, together with the accommodation. In the last stage, post-purchase behaviour, hotels need to engage with their guests to understand how their stay could have been more enjoyable and they try to maintain relations with their guests to enhance loyalty.

A recent study showed that hotels need to improve their efficacy, and this would be more easily achievable through government policies and infrastructures for recycling (Alzboun et al., 2016). This would be extremely beneficial for hotel's performance, as the industry is constantly evolving, and sustainability gives hotels competitive advantage by improving their brand image and reputation (Duric & Topler, 2021). Increasing quality standards and sustainability of services is positively correlated with hotel success because green hospitality attracts more tourists, as the latter show positive attitudes towards eco-friendly business practices (Duric & Topler, 2021). In addition to this, green hospitality has important positive effects on hotels' performance, including lowering operational costs, such as water and electricity consumptions, also because companies monitor their wastes more accurately (Alzboun et al., 2016). This, in turn, leads to higher revenues and makes hotels more likely to be financially stable in the long run (Duric & Topler, 2021). Furthermore, being environmentally friendly strengthens hotels' brand image, which makes them more likely to survive in the industry and outperform competitors (Duric & Topler, 2021). Even though it was found that some tourists think that sustainability might interfere with hotels' comfort and service offering, as well as their experience, the International Hotels Environmental Initiative's survey indicates that 90% of tourists would choose a sustainable hotel (Pereira et al., 2021). Anyhow, in order to encourage potential guests to choose green hotels, it is very helpful to increase communication focusing on sustainability to make guests more familiar with this concept (Pereira et al., 2021).

A case study from Pereira et al. (2021) analysed how Hotel Casa de Palmela, a luxury hotel in Arrábida Natural Park, shifted its focus to being more sustainable and how its performance was affected by this decision. Hotel Casa de Palmela is a five-star hotel with 23 rooms, whose goal is to deliver a unique experience to guests in a protected natural reservoir. The hotel actively tried to reduce food wastes, its energy and water usage through thermodynamic solar panels or by irrigating its fields at night and covering the pool when not being used to reduce evaporation, as well as using eco-friendly products, such as reusable bottles and cleaning products. Refrigeration is currently the highest expense the hotel has, even though the system is efficient and has allowed to save €100,000-150,000/year. The hotel also separates waste and gives food leftovers to farm animals or uses them to make other dishes for other meals. Moreover, it has partnerships with companies offering bike tours to lower carbon dioxide emissions, and changes towels when guests request it, which allows it to save 50% on laundry costs. Hotel Casa de Palmela has committed management and personnel who communicate on a regular basis with customers to encourage responsible consumer decisions and spread awareness on environmental issues. This, combined with the hotel's offer of customised services has granted competitive advantage to the brand, as guests have a really unique experience. In conclusion, the study stated that hotels have started to respond to environmental problems as a way to differentiate themselves from competitors, since tourists are constantly looking for innovative hotels to have exclusive experiences in the world of luxury. Therefore, hotels that decide to invest in reducing their environmental impact achieve lower operational costs and higher profitability. This disproves the negative perception that some tourists have regarding the combination of eco-friendly practices and hotels' standards: luxury hotels are highly compatible with corporate social responsibility, as the latter ensures high guest satisfaction and occupancy rates (Pereira et al., 2021).

In addition to this, Moise et al. (2018) conducted research regarding the relationship between sustainable practices and guest satisfaction and loyalty. The results indicate that hotels should implement green practices to increase their guests' satisfaction, which contradicts the findings of Robinot and Gianelloni (2010). This could also be due to the fact that customers' expectations have changed in the last few years, and travellers have become more aware of environmental issues (Constantin et al., 2013). Moise et al. (2018) also suggest educating guests about the positive impact that their

choices have on the planet. With respect to this, researchers Constantin et al. (2013) surveyed tourists in Romania to understand whether eco-certifications do or do not matter to them when selecting their holiday destination. The results were that eco-certifications attract tourists and increase their satisfaction level thanks to the high credibility of European eco-labels, while improving hotels' standards since thy have to meet certain criteria. However, it should be taken into account that not all tourists know what having an eco-label implies, which jeopardises hotels' efforts (Constantin et al., 2013). Therefore, hotels should contribute to their guests' knowledge concerning environmental issues, so that they can be positively influenced by those recognitions.

Anyway, it is extremely important that becoming more sustainable does not affect the quality of the hotel's services, otherwise the hotel would lose competitive advantage. Green hotel practices are also responsible for enhancing customer loyalty, since guests are more willing to revisit it, as well as encouraging guests to spread positive word of mouth about the hotel (Moise et al., 2018). Furthermore, the study showed that higher satisfaction levels make guests choose the same hotel for future holidays. It should be noted that business travellers are more susceptible to the effects of green practices in hotels, compared to leisure travellers (Moise et al., 2018). This could be explained by business travellers' higher income or education level, since also travellers whose education and income levels are higher tend to be more committed to sustainability (Moise et al., 2018). Despite this, Milar et al. (2012) and Moise et al. (2018) indicated that the reason for a trip does not have an influence on the effectiveness of green practices on guest loyalty, which means that there is no need to target the segments of guests differently.

2.5.4 The role of clusters in promoting sustainability

Currently, the European Union is seriously committed to lowering the tourism industry's environmental impact and it is actively trying to achieve that through green policies (Duric & Topler, 2021). A group of researchers analysed EU policies developed in the last 20 years regarding clusters and sustainable economic growth by looking at sustainable cluster projects (Derlukiewicz et al., 2020). The EU created the European Cluster Alliance, which aims to connect central and regional authorities and development agencies within the EU to collaborate and develop shared cluster

policies (Derlukiewicz et al., 2020). Moreover, in 2018 nine European Strategic Cluster Partnerships were established to focus on sharing knowledge, technologies and collaborating in order to enhance the EU's sustainable economic growth; and a project named 'Smarter Cluster Policies' was launched with the intent to promote smart specialisation strategies for cluster formation and green innovations (Derlukiewicz et al., 2020). The study found that clusters are positively correlated with lower environmental impact of a country's economy, and the importance of this has been spread thanks to the EU's initiatives to increase collaborations and share of knowledge among enterprises (Derlukiewicz et al., 2020). In order to achieve this shared goal of sustainable development, it would be effective to make all cluster members sign an agreement which focuses on sustainability and provides a strategy to achieve the latter (Derlukiewicz et al., 2020). However, even if these policies are in place, a recent study showed that the cluster of Srednogorie in Bulgaria still struggles to implement CSR practices, which reduces the environmental policy's effectiveness (Slavova-Georgieva & Bankova, 2017).

As explained before, clusters tend to enhance innovation, which makes operations and production processes more efficient lowering their ecological impact (Slavova-Georgieva & Bankova, 2017). Clusters' goal of achieving competitive advantage makes them more willing to increase their environmental standards because there is a stronger perceived competition (Slavova-Georgieva & Bankova, 2017). As for implementing sustainability in the hotel industry, clustering offers great potential because it can encourage all cluster members to make changes in their operation processes to meet established cluster standards, making it easier to lower the industry's environmental impact. Given that the hotel industry represents the main part of tourism, its implementation of corporate social responsibility can significantly contribute to the whole industry's intent to preserve the environment (Duric & Topler, 2021).

Moreover, hotels operate 24/7, which makes their energy requirements extremely high, compared to other types of businesses (Pereira et al., 2021). Some examples of shifting towards green hospitality include relying on renewable energy sources to obtain electricity, using smart cards, automatic air conditioning, LED bulbs, eco-friendly cleaning products, products made of recycled materials, implementing

artificial intelligence to monitor water and electricity usage. All these measures are more easily implementable in hotels which have employees trained in sustainability, managers who are committed in this subject, a higher star rating (Pereira et al., 2021). Hotels' level of innovation and modernisation, the social capital available, and the competitivity of the market are also determining (Pereira et al., 2021).

On the other hand, internal obstacles for the implementation of eco-friendly practices are lack of resources, understanding or aversive management attitudes, whereas certifiers, lack of support from institutions and economies in difficult situations are examples of external barriers (Pereira et al., 2021). Another study focusing on the hospitality industry of Jamaica also found that insufficient education, training and financial resources are the main obstacles for hoteliers to make their small-sized hotel's operations more sustainable (Rowe, 2018). However, it is important to mention that sustainability has a positive impact in any hotel, regardless of its size, type or budget (Pereira et al., 2021).

2.6   Government role in cluster formation and development

As explained in the previous section, economic clusters have been proved to foster sustainable development and therefore the European Union has been working on cluster policies to support their formation and growth on a regional and national scale (Derlukiewicz et al., 2020). Each member of the EU has specific cluster policies depending on its needs and economic situation, however all policies share the goal of providing the necessary financial instruments, channels for collaboration and bringing together business and science (Derlukiewicz et al., 2020). The costs arising from this initiative are sustained through public funds from taxation, which might be a weakness in the long run, in case funds are limited. Another disadvantage of this system is that it might be seen as unfair competition because companies which are not part of a cluster do not receive financial resources and support from the government, which might lead them to exit the market causing changes in the industry (Derlukiewicz et al., 2020). Consequently, this might make production and income concentrate in a limited geographical area strengthening clusters, yet causing income to stratify negatively and generating income gap, which would go against the concept of sustainable development (Derlukiewicz et al., 2020). On the other hand, as discussed previously, the EU's cluster policies have been successful in encouraging

European clusters to develop sustainably, as well as facilitating cluster formation (Derlukiewicz et al., 2020). Compared to initiatives targeting individual firms, the government can reach more enterprises through cluster initiatives and generate more wealth, because cluster policies have been proved to be effective (European Commission, 2016).

Recent studies reported that companies' collaborations are not strong enough to form clusters, since competition has significantly increased in the globalisation era, hence the government plays a crucial role in creating new clusters (Katsikis et al., 2012). Nowadays, the main factors to achieve economic growth are innovation, knowledge, communication tools, collaborations among human capital and organisations, and clustering (Katsikis et al., 2012). Globalisation, which can be defined as the integration of different societies and economic entities which influence each other (Ali Irani & Noruzi, 2011), has promoted investments in innovation to outperform competitors, as well as increasing reliance on information management and training. Because of this, a country should have venture capital available which support clusters' innovations, as well as strong education and training systems to make sure cluster members have access to skilled employees to specialise and have high quality standards (Katsikis et al., 2012). The European Commission (2016) surveyed Member States in 2008 finding that there were 69 cluster policies at a national level and 88 focusing on specific regions. Some examples are the French policy called 'Competitiveness clusters', in force between 2006 and 2009, and the German 'Leading Edge Cluster Competition' from 2014, which have had a positive impact on national clusters and the whole economy (European Commission, 2016). 'Competitiveness clusters' gave EUR 2.5 billion of government funds to clusters, generating investments worth EUR 6.5 billion in Research and Development, as well as several jobs, 1000 patents and 200 start-ups (European Commission, 2016).

On the other hand, the European Commission (2016) emphasised the importance of finding the best approach to help each cluster, since there is no specific strategy to follow; cluster policies are effective if they target the cluster's specific needs. Because of this, it is essential that governments do not invest in clusters for ulterior motives or hidden interests because that will not lead to a positive outcome, and unfortunately currently there are initiatives for low-performing clusters that are funded for no

significant outcome (European Commission, 2016). Policies should always aim to increase networking, which gives competitive advantage, and entrepreneurship, which is often overshadowed, even though it is key to achieve smart specialisation: changing the cluster structure is often necessary to outperform competitors (European Commission, 2016). Moreover, the European Commission (2016) recommends investing in research and supporting already specialised clusters and encourage them to develop even further by developing new enterprises to generate more value in the future. In terms of financial resources, funds should be allocated to help entire clusters rather than individual companies in order to avoid distorting the market (European Commission, 2016). After developing the cluster policy, the government should monitor clusters' performance and work immediately on low-performing areas and adjust the policy by making corrective actions to avoid wastes of public funds (European Commission, 2016). All these recommendations from the European Commission are displayed in the table below:

Don'ts	Do's
Support individual specialised firms	Support new activities, in particular those being undertaken by groups or networks of related industries
Create clusters from scratch (i.e. implementing 'wishful thinking' of policy-makers)	Facilitate the growth of clusters by building upon existing strengths (i.e. implementing evidence-based policy by building upon a comparative analysis of regional strengths and 'entrepreneurial discovery')
Fund large numbers of widely varied clusters	Fund strategic cluster initiatives that focus on promoting the strengths, linkages and emerging competences and which are in line with the aims of national/regional smart specialisation strategies
Follow growth trends without reflection	Capitalise upon regional competences to diversify into new activity areas and to develop emerging industries
Follow a narrow sectoral cluster approach	Follow a systemic cluster approach focusing on related industries by capturing cross-sectoral linkages
Develop and implement cluster policy in isolation from other policy areas	Adopt an inclusive and participatory cluster approach (i.e. involving businesses, investors, academics and policy-makers, and making links with related policy themes such as R&D, innovation, entrepreneurship, access to finance, SME internationalisation etc.)
Support cluster initiatives that are only inward looking	Support cluster initiatives that have an international perspective on the positioning of the cluster in international value chains
Focus exclusively on strengthening regional partnerships	Build regional partnerships as a basis for joining European Strategic Cluster Partnerships

Table 3. Recommendations for governments' actions to develop clusters (European Commission, 2016)

Another way in which the government can facilitate clusters' development is by strengthening a cluster's management and funding cluster initiatives that focus on cluster branding. Effective cluster management comprises the activities of planning and monitoring, and leads to trust, a shared vision and more collaboration among cluster members. A study conducted by Lindqvist et al. (2013) concluded that cluster management should provide economic entities with support to innovate, internationalise, and create a common identity. The latter is essential in order for the cluster to distinguish itself from competitors and develop its own brand image, which usually coincides with place branding, and gives competitive advantage to a cluster when its internal identity matches third-parties' perceptions of it (Mauroner & Zorn, 2017). These findings are illustrated by Figure 4.
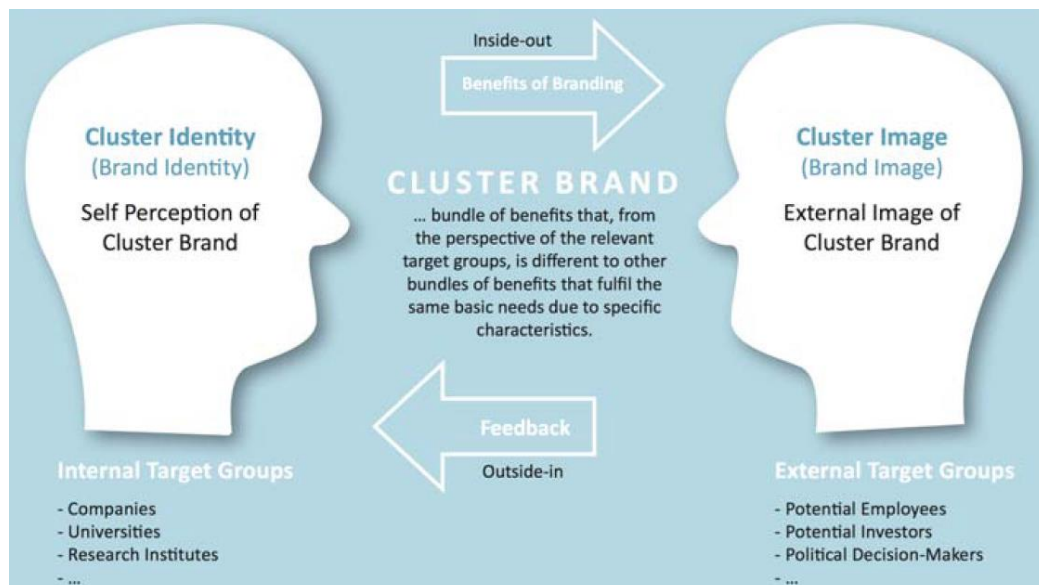
Figure 5. Clusters' brand image is based on their identity (Mauroner & Zorn, 2017)

The interview conducted by Mauroner and Zorn (2017) revealed that cluster members need the management to have initiatives to set common goals, collect data and spread useful information about the market. On the other hand, respondents perceived as non-beneficial all the brand strategies based on an abstract concept, since they do not generate tangible benefits. If run properly, cluster initiatives help a cluster attract its target segments and gain uniqueness. Therefore, the government should design cluster programmes which include meetings among cluster actors, internal media-based communication, marketing, development of new projects, and branding (Mauroner & Zorn, 2017).

2.7 Selected Hotels

In this section, a description of each hotel selected for this study is provided. The researcher chose five hotels possessing an eco-certification, among which one is located in Italy, two in Vienna, and two in Spain. Bio Hotel Raphael, Boutiquehotel Stadthalle, and Der Wilhelmshof are part of a hotel cluster, whereas Mas Salagros EcoResort, and Hotel Botánico & The Oriental Spa Garden do not operate in a hotel cluster. This allowed the researcher to compare the hotels' strategies and identify the relationship between hotel clustering and sustainable hotel practices and hotel performance. This section offers secondary data collected from the hotels' official website and available reports.

2.7.1 Clustered Hotels

2.7.1.1 Bio Hotel Raphael, Rome

Bio Hotel Raphael is a 5-star hotel located in Rome and part of the hotel chain Relais & Chateaux. It was opened in 1963 by Spartaco Vannoni, who made it look like an art gallery by decorating it with paintings, lithographs, Picasso ceramics, and Mayan pieces of art. Bio Hotel Raphael states that caring about our planet and preserving it is part of its philosophy, which is why the hotel does not need to be called eco-hotel (Bio Hotel Raphael, n.d.). This approach to sustainability applies also to its architecture, which was designed to limit the hotel's environmental impact, and its human resources and guests, whose health and well-being is always put first. Moreover, the hotel's restaurant and bar serve organic and vegan products and carefully select their raw materials, which has made its restaurant one of the first organic restaurants in Rome (Bio Hotel Raphael, n.d.).

Thanks to its commitment to sustainability, Bio Hotel Raphael has been able to become part of the cluster called Bio Hotels, which networks green hotels in Italy, Switzerland, Austria, Germany, Greece, and Slovenia. Every six months, the cluster members get inspected to verify that they meet the clusters' requirements of sustainability; every two years, the cluster prepare an environmental report with its CO_2 emissions (Bio Hotels, n.d.). The cluster's goal is to increase the quality standards of hospitality to respond to the current environmental issues of pollution, global warming, and waste disposal, as well as increasing transparency in the hotel industry.

In 2001, Bio Hotels decided to use only certified organic products in Food & Beverage, and other requirements to become a member include using only energy obtained through renewable sources of energy and bio-cosmetics (Bio Hotels, n.d.). The suppliers chosen by the cluster include Allnatura, Cotonea, Marías, Memo, Bioland and Natumi, among others (Bio Hotels, n.d.). Additionally, the cluster members are expected to raise environmental awareness among their guests and help each other to work synergistically. All the cluster members pay a symbolic fee for marketing, which varies based on the number of the hotel's rooms (Bio Hotels, n.d.). Another cluster that the hotel joined is Ospitalità Natura, which is dedicated to Italian green hotels and where Bio Hotel Raphael's sustainability is defined as 'advanced' (Ospitalità Natura, n.d.). Moreover, the hotel recommends other neighbouring competitors when it has reached full capacity, as a form of cooperation and indirect marketing; those have similar standards and business practices as Bio Hotel Raphael (Bio Hotel Raphael, n.d.).

2.7.1.2 Der Wilhelmshof, Vienna

Der Wilhelmshof is a 4-star boutique, family-owned hotel that focuses on art and sustainability. It was designed by the Viennese artists Ty Waltinger and Andreas Reimann to make each room unique (Der Wilhelmshof, n.d.). The hotel is certified with the Austrian ecolabel 'Österreichisches Umweltzeichen für Tourismus', the European Ecolabel, and it collaborates with charity organisations (Der Wilhelmshof, n.d.). Moreover, it possesses the biggest solar plant in the Viennese hotel industry, which allows the hotel to produce all the electricity it requires and 50% of the energy used for water heating. It also has a groundwater heat pump since 2021, which makes Der Wilhelmshof carbon neutral in both heating and procuring warm water and has enabled it to lower its energy expenditure by 75% (Der Wilhelmshof, n.d.). Additionally, the hotel is well-insulated and uses only LED lighting (Der Wilhlmshof, n.d.). Der Wilhelmshof's commitment to be sustainable reaches also the F&B department, where local and organic products are preferred. Those are obtained from ethical suppliers, including Hornig, which sells organic and fair-trade products, Die gute Schokolade, which contributes to the reforestation of the rain forest, and Tres-Hombres, which sells rum with no CO_2 emissions (Der Wilhelmshof, n.d.). Furthermore, the hotel supports the Initiative United – 'United Against Waste' to limit its wastes in its restaurant (Der Wilhelmshof, n.d.).

Der Wilhelmshof's partnership with Sleep Green – 'Hotels for a better future' makes Der Wilhelmshof part of a sustainable cluster that promotes each of its members. Sleep Green is a network of individual hotels which are eco-focused and holistic in innovating while preserving the environment. There are 17 hotels part of this cluster and they are all committed to social, economic and especially environmental sustainability. The social pillar of sustainability is achieved by promoting Corporate Social Responsibility: all employees are treated fairly and offered a pleasant working environment (Sleep Green, n.d.). The economic pillar of sustainability refers to the cluster members' goal to grow economically without damaging the planet, whereas the environmental pillar refers to using green energy and eco-friendly products (Sleep Green, n.d.). For instance, Sleep Green encourages the 17 hotels to obtain 90% of their electricity from renewable sources to earn an additional green point (Sleep Green, n.d.). Each member of the cluster needs to have high satisfaction rates on at least two of the following platforms: >8 on Booking.com; >4 on Tripadvisor.com; >90% on Holidaycheck.com (Sleep Green, n.d.). In addition to this, Der Wilhelmshof is part of the hotel cluster called PrivateCityHotels, which groups individual hotels located in Switzerland, Austria, and Germany. Each member receives support and benefits typical in hotel chains. The main goal of this hotel cluster is to have happy guests through high quality standards, monitoring the scores of guest satisfaction based on the TrustScore of the company TrustYou (Der Wilhelmshof, n.d.).

2.7.1.3 Boutiquehotel Stadthalle, Vienna

Boutiquehotel Stadthalle is a 3-star hotel located in the city centre of Vienna. It is certified with the UE Ecolabel and is the first zero-energy balance hotel in Europe, which means that it produces all the energy it requires through its groundwater heat pump, photovoltaic technology, and solar panels (Boutiquehotel Stadthalle, n.d.). Furthermore, it uses LED lighting, eco-shower heads, and it recycles all its wastes (Boutiquehotel Stadthalle, n.d.). The hotel incentivises guests to choose a sustainable means of transportation to gain the Green Bonus: guests that arrive at the hotel by train, bicycle, or e-cars, without taking the plane, receive a discount of 10% on their room rate (Boutiquehotel Stadthalle, n.d.). Loyal guests also receive an additional 10% discount regardless of the means of transportation used (Boutiquehotel Stadthalle, n.d.). The entire staff is extremely eco-conscious and committed to spreading the hotel's values. Boutiquehotel Stadthalle cooperates with local hotels to

share information and support each other. Moreover, it is part of Green Tech Cluster, an Austrian cluster that involves around 250 Austrian companies. It focuses on sustainable development through environmental technology to achieve a circular economy (Green Tech Cluster, n.d.).

2.7.2 Unclustered Hotels

2.7.2.1 Mas Salagros EcoResort, Barcelona

Mas Salagros EcoResort is the first 100% sustainable hotel on the Spanish peninsula. It is a 5-star resort located in Park de la Serralada Litoral, featuring a thermal bath circuit of the international company AIRE Ancient Baths Vallromanes. The resort received the Green Globe certification, which is a global ecolabel (Mas Salagros, n.d.). The resort's building faces the South, which allows it to use natural lighting also in winter. Its most important sources of heating are the biomass boiler, which uses eco-friendly wood chips supplied by a sustainable forest in Catalonia, and solar panels (Mas Salagros, n.d.). Moreover, the roofs of the rooms are plant-based, hence they insulate the rooms, keep the temperature low, absorb CO2, humidity and rain water, which benefits the biodiversity (Mas Salagros, n.d.). The rooms' furniture is all sustainable, organic and made of fully restored materials, and the beds are hand-made (Mas Salagros, n.d.). The restaurant uses organic, local ingredients to limit the resort's environmental emissions, and all the wastes generated are separated to be recycled. Since 2018, the hotel has used an environmental indicator to monitor the amount of greenhouse gases emitted both directly and indirectly (Mas Salagros, n.d.). An additional service available at Mas Salagros EcoResort is Tesla's charging station for all its guests that own a Tesla. As for its business strategy, Mas Salagros EcoResort operates individually and is not part of a hotel cluster (Mas Salagros, n.d.).

2.7.2.2 Hotel Botánico & The Oriental Spa Garden, Tenerife

Hotel Botánico & The Oriental Spa Garden is a 5-star hotel opened in year 1974 and located in Puerto de la Cruz, Spain, in the natural reserve Loro Parque, which was established in 1972 and is one of the best zoos in the world. The hotel works independently, since it is not part of a hotel cluster or a hotel chain, but only of Grupo Loro Parque, which is not centred on hotels. As for its commitment to the environment, Hotel Botánico holds several certifications: ISO 9001, ISO 14001, EMAS

III, TRAVELIFE, BIOSPHERE HOTEL (Hotel Botánico & The Oriental Spa Garden, n.d.). Moreover, every year it revises its sustainability goals and gets inspected to keep its quality standards high and its environmental and social impact low (Hotel Botánico & The Oriental Spa Garden, n.d.). The latter is also achieved through the hotel's Corporate Social Responsibility policy, which reflects Hotel Botánico's dedication to help its local community (Hotel Botánico & The Oriental Spa Garden, n.d.). All its actions to implement CSR have the aim to improve the hotel's relationship with all of its stakeholders, especially its guests, as well as contributing to responsible economic growth (Hotel Botánico & The Oriental Spa Garden, n.d.).

The hotel has a department dedicated to Sustainability and Quality, which influences all the other departments of the hotel and ensures they work respecting the global SDGs. Regarding these, Hotel Botánico developed its own environmental management programme, which indicates the resources to use for each objective. In addition to this, the management educates all the employees, who in turn is committed to spreading environmental awareness among the guests, so that they become aware of the hotel's sustainable approach (Hotel Botánico & The Oriental Spa Garden, n.d.). In the company's environmental report, it is indicated what factors are measured to assess the hotel's environmental impact. Those include gasoil, pool chemicals, toner, electricity, light bulbs, and water usage, which are part of the direct factors (Hotel Botánico & The Oriental Spa Garden, n.d.). The indirect factors measured are pollutants emitted by suppliers for both production and transportation (Hotel Botánico & The Oriental Spa Garden, n.d.). Hotel Botánico confirms to meet all the legal requirements addressing the hotel industry (Hotel Botánico & The Oriental Spa Garden, n.d.). From its sustainability report, it can be observed that its paper, energy, water, and other raw material consumption decreased significantly from 2018 to 2019, thanks to higher efficiency of operations (Hotel Botánico & The Oriental Spa Garden, n.d.).

3 Methodology

3.1 Introduction

This section provides all the information about the research design developed to answer the research questions presented in the introduction. This study relied on a qualitative research approach to collect primary data, since semi-formal interviews will allow to gather in-depth data about the impact of clustering on hotels' operations and business strategy. Subsequently, additional data were gathered through the hotels' reports and a SWOT analysis was conducted to analyse the differences between working in a hotel cluster or independently. SWOT analyses enable to identify internal and external factors influencing a company's performance. Internal factors are Strengths and Weaknesses, such as competitive advantages resources, finance, management strategies, whereas external factors are market Opportunities and Threats, which are related to the environment of competitors and the entire industry. A SWOT analysis helps companies develop a better strategy based on their unique characteristics (Sammut-Bonnici & Galea, 2015).

The interviewees represent one Italian hotel, i.e. Bio Hotel Raphael, two Austrian hotels, i.e. Der Wilhelmshof and Boutiquehotel Stadthalle, and two Spanish hotels, i.e. Mas Salagros EcoRestort and Hotel Botánico & The Oriental Spa Garden. The researcher relied on convenience sampling due to practical reasons and because the participants needed to represent eco-certified hotels, as well as both clustered and unclustered hotels in order to compare them. Since this study was conducted in Vienna, and Italy and Spain are high-tourism destinations, which the author is familiar with, this research focuses on the Italian, Spanish, and Austrian market. All the five hotels are certified as sustainable hotels; three of them operate in hotel clusters, i.e., Der Wilhelmshof, Boutiquehotel Stadthalle, and Bio Hotel Raphael, whereas the other two are independent, i.e., Mas Salagros EcoResort, and Hotel Botánico & The Oriental Spa Garden. During the interviews, it was analysed how national and regional policies affect the hotels' business decisions concerning sustainability.

3.2 Research Design

To be able to answer the research questions of a study, is necessary to select the appropriate research approach, which can be defined as the set of procedures used to collect and analyse data (Creswell, 2014). A research approach can be quantitative, qualitative or mixed methods. For this study's purpose, a qualitative research approach is the most adequate, as it focuses on the factors behind a complex phenomenon and individuals' interpretation of it (Creswell, 2014). Qualitative research uses the following designs: narrative research, phenomenology, grounded theory, ethnography, and case study, which is the design selected for this study. Case studies allow a detailed analysis of activities or processes through open-ended interviewing that take into consideration people's experiences, thoughts and beliefs. On the other hand, a quantitative approach focuses on relationships between the tested variables and data are analysed through statistical procedures. Mixed methods research involves the collection of both quantitative and qualitative data to have a better understanding of the research problem when one approach is not enough without the other (Creswell, 2014).

Since this paper's research problem concerns interactions among businesses and individuals of the hospitality industry and related sectors, a qualitative approach that relies on open-ended interviews enabled the researcher to investigate on the five hoteliers' strategies, experiences and perceptions of the concept of clustering and ecohotels. Therefore, this study is based on an inductive approach, as the specific situation of the five hotels chosen was used to extrapolate a broader conclusion applicable to the hospitality industry in general, in spite of the limitations mentioned in Section 6.2. In addition to this, a table summarising the key aspects covered during the interviews was created to compare each hotel's strategy. In the second part of the data analysis process, a SWOT analysis of hotel clustering was conducted to answer the research questions.

3.3 Interview design

As mentioned before, the interviewed hotels were selected out of convenience to ensure the sample met the necessary criteria, i.e. holding eco-certifications and consisting of both clustered and unclustered hotels; the interviewee from each hotel

participated in the study. The interviews designed for this study were semi-structured, as a set of pre-determined questions were asked to all five interviewees, depending on whether their hotel was clustered or unclustered. Semi-structured questions encourage two-way communication, which gave more freedom to the respondents when answering the questions because they were able to cover the aspects they perceive as the most relevant (Doyle, 2020). Furthermore, the questions were open-ended because no possible answer options were given to the interviewees, so that there was a stronger focus on their thoughts, knowledge, and experiences.

The interviews were conducted asynchronously, per email, for practical reasons and schedule constraints of the interviewees, as three of them are located abroad and preferred this mode of interview. Moreover, this made the interviewees feel more comfortable because they answered the questions from their workplace or home. The approximate length of each interview was 30 minutes. The interview that was sent to the five hotels can be found in Appendix A, together with the source and explanation of each interview question.

3.4 Research ethics

This study was conducted in compliance with the code of ethics for research: interviewees' privacy was protected and their identity was not revealed, therefore the interviews were confidential and anonymous so that their responses cannot be linked to the interviewee. The participants were informed regarding the study's objectives and use of data before collecting the latter, and their participation was voluntary. After the study, the results were shared with the participants to improve their hotel's performance; all opinions were considered equally relevant, and the data were not manipulated or shared with third partied. The findings of this research were not given to any third parties in order to protect the interviewees.

3.5 Data collection and analysis

The interviews conducted allowed the author to collect primary data from five hotels that were selected after examining several hotels' vision and business strategy: all the selected hotels are certified as green hotels and they are either part of a cluster or independent hotels. Hotel Botánico & The Oriental Spa Garden and Mas Salagros EcoResort operate as individual hotels, whereas Boutiquehotel Stadthalle, Der

Wilhelmshof, and Bio Hotel Raphael are members of hotel clusters. The countries considered to find potential interviewees were: Italy, Spain, Austria, given that the study took place in the latter, and the researcher is from Italy and is familiar with the Spanish market and the local language. Moreover, Vienna, Rome, Tenerife, and Barcelona are very popular tourism destinations, where the hotel industry is well-developed. The interviewees were contacted at the beginning of May 2022, and their responses were sent to the author per email within a period of one month. All the interviewees responded in their native language; therefore, the interviews were subsequently translated from Italian, Spanish, and German to English.

The analysis of the data was conducted by examining the information provided by each hotel individually in order to better understand their approach towards economic, social, and environmental sustainability. In addition to this, the hotels' sustainability reports available were used to obtain further information and offer a more complete overview. Thereafter, a SWOT analysis was conducted to compare the hotels' strategy and identify the strengths, weaknesses, opportunities, and threats of green hotels that operate in hotel clusters.

4 Results

In this section, the interviewees' responses were analysed separately to gain a better insight of each participant's commitment to sustainability and relations with their competitors. Therefore, each subsection focuses on one of the five interviewed hotels; the ten interview questions are examined all together, and considered equally relevant to answer the research questions and understand the link between operating in a hotel cluster and being a sustainable hotel. The last subsection is dedicated to the SWOT analysis, which brings together the data collected from the five green hotels and allows to identify the differences between the business strategy of clustered and unclustered hotels. In order to respect the participants' anonymity, their name is not mentioned and the name of their hotel is used; all this information was provided by the hotels' representatives.

4.1 Representative of Boutiquehotel Stadthalle

Boutiquehotel Stadthalle cooperates with several partners located in the DACH area, with which it exchanges information, also during an annual hotel camp. It defines itself as part of an informal cluster that connects different hoteliers; this has encouraged the hotel to adopt sustainable business practices and learn from other cluster members to keep improving. For instance, the Sales Manager of Boutiquehotel Stadthalle was recently in contact with the Revenue Manager of another Viennese hotel to discuss the topics of web booking engines and revenue management in general. When it comes to potential disadvantages of being part of a cluster, the representative of Boutiquehotel Stadthalle stated that it might be challenging to adhere to the same standards and KPIs of a hotel cluster, as each cluster member is unique in terms of size, number of rooms and USP, and has its own business strategy. Moreover, clusters might represent an obstacle for new hotels that want to enter the market, as clusters are stronger and well-established. The Sales Manager also highlighted the importance for cluster members to monitor the development of potential competitors, including who is entering and exiting the market.

As for innovation, it plays an important role in this family-owned hotel, which wants to combine the family's traditions with constant innovation. With respect to this, the hotel's owner, Mrs. Reitteter is considered a pioneer for the spread of sustainable hotel practices: she started working in Boutiquehotel Stadthalle 2001, and she was already committed to sustainability, trying to spread this approach among her colleagues. The hotel's strategy is influenced by EU cluster policies and cooperates with the Green Tech Cluster in Austria, as they have similar sustainability goals. Furthermore, the Austrian government supports green businesses by giving them subsidies to develop their eco-friendly projects. Boutiquehotel Stadthalle is eco-certified, and it was the first Austrian hotel to receive the award of the 'Austrian Eco-Label' and achieve a zero-energy balance among all the hotels in Europe.

The table below summarises the strategy and sustainability approach of Boutiquehotel Stadthalle:

Impact of operating in a cluster	- Informal cluster

	- Mutual exchange of information, e.g., with revenue manager of a local hotel - Partners in the DACH area - Difficult to adhere to the same standards and KPIs because each hotel is different
Role of innovation	- Combines the family's tradition with innovation
Impact of EU, national, and regional polices	- Part of the Green Tech Cluster in Austria - Respects EU cluster policies - The Austrian government provides subsidies for green projects - The owner has always shown commitment to sustainable development
Effect of eco-certifications	- Positive impact on both employees and guests
Costs of green hotels	- Lower costs, e.g. lower food wastes

Table 4. Boutiquehotel Stadthalle's strategy (representation created by the author: 05/06/2022)

4.2 Representative of Der Wilhelmshof

By joining a hotel cluster, Sleep Green, Der Wilhelmshof has increased its visibility attracting guests from all over Europe and has kept the hotel committed to improving its sustainability standards over time. The cluster members of Sleep Green need to meet specific parameters, which makes their business strategies converge and have

some aspects in common. All hotel departments are addressed to make sure the hotels are as sustainable as possible; each of them is assessed yearly to see whether or not they are still meeting the cluster's criteria. Having said this, each cluster member has its own manager who can take decision based on their hotel's characteristics and target segments. According to the interviewee, Der Wilhelmshof benefits from being part of Sleep Green, which has strong partnerships in several European countries. In contrast, individual hotels do not have this knowledge, which gives Sleep Green a competitive advantage.

Given that hotel clusters represent a stronger business entity than individual hotels, new hotels might feel threatened because it is harder for them to compete. However, the interviewee is of the opinion that by targeting different customer segments, a new hotel can offer a different service and acquire its own market share, which would avoid competing directly against the hotel cluster. The latter is also limiting because members need to adhere to certain criteria, which might have a strong influence on the hotels' strategy. In particular, green hotel clusters require more efforts from its members because they need to monitor their wastes and rely only on green suppliers for their services and products.

Der Wilhelmshof uses innovation to stay competitive and achieve higher efficiency: it implements new technologies, marketing techniques, and uses more advanced software to elaborate high amount of data in a short period of time. EU cluster polices are important for the hotel to keep growing while respecting the environment, and the Austrian government, which is more committed to sustainability than other European countries, encourages businesses to become sustainable by offering them subsidies to reduce their environmental impact. As a green clustered hotel, the representative of Der Wilhelmshof said that they have lower costs thanks to its lower wastes; traditional hotels that are not sustainable face higher costs for electricity and water, among others. Its eco-certification attracts more customers, which leads to higher profits. As for its employees, they are eco-conscious, but their job satisfaction is not higher because of the eco-labels obtained by Der Wilhelmshof.

The table below summarises the strategy and sustainability approach of Der Wilhelmshof:

Impact of operating in a cluster	- Attract customers from all over Europe - Sleep Green (cluster) motivates the hotel to monitor its environmental impact and grow in a sustainable way - Cluster members have parameters to meet - Yearly assessment of operations - Less flexibility to diverge and have a different strategy - Requires strict monitoring of environmental impact
Role of innovation	- Innovation to keep up with industry trends, e.g., new technologies, marketing strategies, and processing of information
Impact of EU, national, and regional polices	- EU cluster policies are respected - Austria incentivises businesses to become sustainable through subsidies
Effect of eco-certifications	- Employees are happy to work for a green hotel, but that is not the main factor to attract them - Attractive especially for young employees - Increase guest satisfaction
Costs of green hotels	- Lower costs due to lower wastes and energy or water consumption

	- Attracts more customers

Table 5. Der Wilhelmshof's strategy (representation created by the author: 05/06/2022)

4.3 Representative of Bio Hotel Raphael

The representative of Bio Hotel Raphael stated that being part of a cluster means having more support and promotion by the other cluster members, since when it reaches full capacity, it recommends other cluster members. This enhances brand awareness of the cluster members, which improves the cluster's image overall. In spite of collaborating with other green hotels in Rome and in other European countries, Bio Hotel Raphael has its own management strategy, and aspects such as room rates, staffing, marketing, are not coordinated among the cluster members. The aspect shared by the latter is that they are all eco-certified and aiming to offer a high-quality service that respects the environment at the same time. According to Bio Hotel Raphael, being a clustered hotel might be disadvantageous if cluster members have a very similar business strategy and share the same suppliers; if a major supplier exits the market, the entire cluster might be jeopardised. In addition to this, it is crucial that all cluster members have similar standards because if a hotel's service is low quality, the entire cluster's reputation will be damaged. Concerning new individual hotels, the interviewed representative affirmed that competing against a cluster might be extremely challenging, which is the reason why Bio Hotel Raphael suggests joining a hotel cluster in the early stages to benefit from the latter's market position and recognition.

Bio Hotel Raphael finds innovation very important to maintain its position in the market as a green luxury hotel: it constantly tries to find new partners to offer guests new experiences, and it invests in its current facilities to modernise them. In Italy, hotel clusters are not very popular and there are no specific policies that promote sustainability within hotel clusters. Bio Hotel Raphael is much more eco-friendly than the average Italian hotel, which makes it easy to comply with EU regulations and environmental standards, which the hotel really values to gain competitive advantage. Since the Italian market of green luxury hotels still needs to grow, Bio Hotel Raphael does not have very well-established competitors, and its cluster is the

only one in Rome. Additionally, the interviewee believes that being part of a green cluster gives the hotel a stronger brand image and more positive reputation because it does not operate only to be profitable; clusters are stronger business entities and its members motivate each other to achieve higher standards. In terms of costs, becoming a sustainable hotel requires significant liquidity to shift to new systems of operations, yet it generates a positive return because the hotel's reliance on natural resources decreases, which strengthens its image and attracts more customers.

The table below summarises the strategy and sustainability approach of Bio Hotel Raphael:

Impact of operating in a cluster	- More support - Mutual promotion of cluster members → brand awareness - Each member has its own management strategy - The performance of cluster memebrs impacts the entire cluster's reputation - Relying on the same suppliers is a risk
Role of innovation	- Constant advancement to maintain its position in the market
Impact of EU, national, and regional polices	- EU regulations are respected - No Cluster policies in Italy
Effect of eco-certifications	- Guarantee operations standards - Attract guests and increase their satisfaction and loyalty

	- Employees choose the hotel due its strong reputation, not because of its eco-labels
Costs of green hotels	- Higher initial costs, but lower costs in the long run

Table 6. Bio Hotel Raphael's strategy (representation created by the author: 05/06/2022)

4.4 Representative of Mas Salagros EcoResort

Mas Salagros wants to operate independently to have more freedom when making business decisions, therefore it does not have hotel partners. Its representative stated that operating as an individual hotel might represent a disadvantage when making major investments or changing business strategy, as the hotel is not supported by a network of hotels that mitigate each other's risks. Moreover, individual hotels might struggle to compete with clustered hotels that support each other because the latter are likely to capture a greater market share.

Mas Salagros adheres to the EU regulations to limit its energy consumption and environmental impact, as there are not specific regulations about sustainability for hotels located in Barcelona. The hotel is fully sustainable and implements innovations that respect its high-quality standards; the hotel believes that innovation plays a crucial role in hotels, because those that do not innovate are likely to be outperformed within 5-10 years. Additionally, by holding eco-labels, Mas Salagros can target more potential guests, both travellers looking for a luxury accommodation and those who are eco-conscious. The hotel really values the importance of contributing to the preservation of the environment as a hotel, given that the hotel industry has the responsibility to educate and influence all of its stakeholders. Finally, according to the interviewee, sustainability will become standard because to run businesses in the long run, everyone needs to preserve natural resources and use them more sparingly.

The table below summarises the approach and sustainability approach of Mas Salagros EcoResort:

Impact of operating outside of a cluster	- More freedom and flexibility to take its own business decisions and have a unique management strategy - No external partners - Higher risk when making major investments - Hard to compete with well-established hotel clusters
Role of innovation	- First 100% sustainable hotel in Spain, but it keeps improving and innovating - Investments in facilities and services
Impact of EU, national, and regional polices	- EU policies determine its energy consumption and pollutants emissions - No local policies
Effect of eco-certifications	- Attract more guests: travellers looking for a luxury accommodation and eco-conscious ones
Costs of green hotels	- Lower costs in the long run, despite being higher initially

Table 7. Mas Salagros EcoResort's strategy (representation created by the author: 05/06/2022)

4.5   Representative of Hotel Botánico & The Oriental Spa Garden

Hotel Botánico operates as an individual hotel in Tenerife, which according to the interviewee allows the hotel to have a more flexible business strategy, as the hotel

can set its own room rates, develop new policies and create new services without having to match other partners. Hotel Botánico also defines itself as unique compared to the other hotels located in its geographical area because it is a luxury hotel that is in the middle of a natural reserve and is sustainable in all its departments. Because of this, Hotel Botánico does not share any management strategies with its competitors. Its goal is to use innovation in every department to maintain its strong position in the market: it aims to offer something new to guests every year in order to enhance loyalty. For instance, the hotel keeps adding new products in Food & Beverage by local ingredients, and it offers sustainable services to strengthen the hotel's image and benefit the local community.

Its green labels help the hotel attract customers from all over the world because travellers have become more aware of environmental issues: people want to enjoy their holiday without damaging the environment. Moreover, certified green hotels have a stronger reputation because they do not operate only to be profitable, but also to contribute to all living beings' well-being. Because of this, eco-certifications lead to higher trust because they prove the hotel's commitment. This makes guests more satisfied and employees more committed, as the latter are proud to work for one of the best sustainable hotels in Spain. According to the interviewee, the main obstacles when trying to become a green hotel include lack of proper management to implement new eco-friendly business practices, which require regular monitoring and the necessary knowledge, as well as lack of funds, which is often the case for small hotels in particular.

The Spanish government does not give strict parameters to meet when it comes to hotels' sustainability, therefore Hotel Botánico respects the EU cluster policies and regulations to lower businesses' environmental impact. According to the hotel's representative, being eco-friendly will soon become essential to survive in the hotel industry and meet the expectations of guests, who are more committed to having a responsible lifestyle. The table below summarises the sustainability approach of Hotel Botánico & The Oriental Spa Garden:

Impact of operating outside of a cluster	- Freedom to set its own prices, develop new policies, and offer new services - Strategy adapted to hotel's guests and market trends - No hotel partners - Different USP: natural reserve and sustainability with luxury - Independent hotels are more vulnerable in economic recession periods - It might be harder to acquire a large market share
Role of innovation	- Innovates in every department to attract and retain customers - Innovation benefits the hotel's image
Impact of EU, national, and regional polices	- EU sustainability polices are respected - No specific Spanish policies
Effect of eco-certifications	- Attract international guests - Stronger brand image
Costs of green hotels	- Productive investment because it leads to lower costs

Table 8. Hotel Botánico & The Oriental Spa Garden's strategy (representation created by the author: 05/06/2022)

5   Discussion

This section brings together the findings collected from the five interviewed hotels. Based on the interview and the cluster criteria introduced in the literature review, it can be said that Der Wilhelmshof is the hotel that best meets the cluster criteria, as it closely works with the other cluster members of Sleep Green and the latter has an impact on all hotel departments. After Der Wilhelmshof, Bio Hotel Raphael meets the cluster criteria without adhering to a single management or operations strategy, yet there is significant cooperation among its cluster's members. The third place is occupied by Boutiquehotel Stadthalle, as it defines itself as part of an informal cluster in which there is a mutual exchange of information. On the other hand, Mas Salagros EcoResort and Hotel Botánico & The Oriental Spa Garden operate individually. As for the hotels' degree of sustainability, the greenest hotels among the five selected are Mas Salagros EcoResort, which is 100% sustainable and unclustered, followed by Boutiquehotel Stadthalle, which has a zero-energy balance and is clustered. Table 9 provides the ranking of the interviewed hotels based on the cluster criteria defined in the Literature Review. Table 10 provides the ranking of the hotels from the most sustainable to the least sustainable. This ranking is based on the information available on the hotels' official website and their sustainability reports.

Ranking of clustered hotels	1. Der Wilhelmshof 2. Bio Hotel Raphael 3. Boutiquehotel Stadthalle
Unclustered hotels	- Hotel Botánico & The Oriental Spa Garden - Mas Salagros EcoResort

Table 9. Hotels' ranking based on cluster criteria (representation created by the author: 18/06/2022)

Greenest hotels	1. Mas Salagros EcoResort 2. Boutiquehotel Stadthalle 3. Der Wilhelmshof 4. Hotel Botánico & The Oriental Spa Garden

	5. Bio Hotel Raphael

Table 10. Hotels' ranking based on their degree of sustainability (representation created by the author: 18/06/2022)

According to the representative of Mas Salagros EcoResort, the advantages of being a green hotel are several: sustainable hotels are less subject to government intervention because they already comply with all the sustainability criteria; they have lower costs in the long run, in spite of having higher costs initially; employees are more satisfied with their position because they feel they are contributing positively to society's well-being, and they are more likely to make more responsible choices in their everyday life; guests of green hotels are more satisfied because they feel they are tackling a global issue. On the other hand, hotels might be discouraged to commit to sustainability because it is not easy to find sustainable suppliers, therefore a hotel might have to choose less convenient suppliers that have higher prices or are in a less optimal location to meet its sustainability standards. An additional obstacle for hotels aspiring to become green is the management's reluctancy to change business strategy, especially if financial resources seem to be insufficient.

Der Wilhelmshof is of the same opinion: its representative stated that hotels that are not green might be discouraged to become sustainable because that requires a drastic change in the hotel's strategy, therefore it is necessary to have experience to make that shift. It can be challenging to change suppliers to comply with stricter environmental standards, however it is an investment that generates a positive return in the long run and a solution to compensate for the higher costs might be increasing prices to increase revenue. Moreover, social sustainability in Austria is very important and the government tries to foster well-being of employees and local communities. For sure becoming sustainable gives competitive advantage and will soon become necessary because travellers are more eco-conscious and want to stay in hotels that actually have a positive contribution on society.

According to Boutiquehotel Stadthalle's representative, being a green hotel gives the advantage of reducing spending by increasing efficiency, thereby limiting wastes, e.g. food wastes. Green certifications have a positive impact on employee and guest satisfaction, as they improve the company's image. However, as eco-labels are becoming a trend, hotels feel more pressure to become sustainable to keep up with

industry trends, which often results in the issue of greenwashing, instead of actually becoming green hotels. Anyway, being sustainable is becoming more and more important to all hotel stakeholders, therefore in order to stay competitive hotels need to make this shift and operate responsibly. Hotel Botánico & The Oriental Spa Garden agrees and believes that becoming a green hotel might have higher costs in the initial stages when it is necessary to make an investment, however in the long run sustainability leads to higher profits because it reduces costs: the hotel uses less energy and operates on higher efficiency.

Analogously, the representative of Bio Hotel Raphaels stated that in the initial stages, becoming a green hotel requires a lot of time and resources and a hotel is not guaranteed to succeed, which represents a deterrent for several hotels, but managers should overcome this fear and ask for the support of other managers working in green hotels or sustainability experts that know how to implement eco-friendly business practices successfully. As for possessing an eco-certification, the latter increases the hotel's trustworthiness and they play a relevant role in guest satisfaction because guests' loyalty increases when they know their holiday represents a responsible choice. Bio Hotel Raphael's employees are attracted by the hotel's strong brand, whereas the eco-certifications are not one of the main reasons why people what to work there. However, Bio Hotel Raphael's eco-certifications contribute to the positive brand image of the hotel. According to the representative interviewed, sustainability is already a trend and any business can commit by using renewable resources and choosing green suppliers. Customers are more and more eco-conscious and pay attention to eco-certifications because they are a guarantee of hotel's emissions and way of operating. Since government regulations will probably become stricter in the near future, it is necessary to embrace this cultural shift which also represents an urgent challenge to tackle to preserve the precious natural resources that everyone needs.

Concerning the threats that individual hotels face, Mas Salagros EcoResort, which is unclustered, believes that new independent hotels might struggle to enter a market without the support of other local hotels, which have a strong brand and great market share. Hotel Botánico & The Oriental Spa, which operates individually, revealed that being an individual hotel can represent a threat during economic recessions, including

the Coronavirus pandemic, which had a negative impact on the entire tourism sector. When revenue decreases, hotels have less liquidity available, which means that individual hotels are more vulnerable because they do not have the support of all cluster members, who would help each other in risk prevention and to overcome different difficulties through their experience and resources. The five hotels affirmed that hotel clusters represent a stronger business entity, which might be a threat for individual hotels, which have no support from other partners and need to compete with well-established hotels working in synergy.

Table 11 summarises the points shared by the interviewed hotels.

Hotel clustering	- More support - Stronger brand - Larger market share - Mutual promotion - Shared information - Might decreased flexibility in decision making
Eco-certifications	- Stronger brand image - Better reputation - Contribute to attracting talent - Higher guest satisfaction - Stimulate employees' commitment
Innovation	- Necessary to stay competitive - Applies to all hotel departments - Increases guest satisfaction
EU and government regulations	- No national cluster policies - The hotels respect the EU regulations on sustainability

Table 11. Representatives' shared points (representation created by the author: 18/06/2022)

These findings confirm that the five interviewees share the same perspective regarding the importance of sustainability and eco-labels, which was predictable given that all the five participants are eco-certified hotels. None of the hotels interviewed is subject to cluster policies designed specifically for their geographical area, which means that Italy, Spain, and Austria do not have strong cluster policies. However, Austria is more committed to sustainable development, and the government offers subsidies to any business wanting to lower its environmental impact, for instance by relying on renewable sources of energy. Even though social and economic sustainability were not examined thoroughly, the participants work with local suppliers and are green hotels, therefore their activities are not limited to the environmental sustainability pillar. However, the latter is their main focus.

The interviewees identified several obstacles that non-sustainable hotels might face when deciding to become green: lack of proper management and knowledge, lack of funds, reluctancy to change, potential increase in costs (initially), need to change suppliers. The hotels' recommendations for businesses that want to become sustainable are: to ask for the support of sustainability experts and hoteliers of green hotels, who know how to transition effectively to a green hotel strategy; to increase prices to compensate for the initial higher costs; to avoid greenwashing for the sake of improving the hotel's image. All the interviewees agree that sustainability is already necessary and will become standard in the hotel industry because guests are more aware of and sensitive to environmental issues. Government and EU regulations will probably become stricter in the next few years, therefore hotels will have to conform and implement green practices in order to keep their position in the market. Moreover, according to the hotels' representatives and Pereira et al. (2021), eco-certifications help a hotel improve its brand image and attract more guests, as eco-labels guarantee the hotel's standards of operations, which increases trustworthiness. They might be a factor that attracts employees and increases their job satisfaction, yet two hotels, i.e. Bio Hotel Raphael and Der Wilhelmshof, admitted that employees do not choose their job based on the company's eco-certifications, but more because of the hotel's reputation, for which eco-certifications might have an indirect impact. Sustainability can be achieved through innovation as well, which is considered essential by all the five participants. Therefore, all hotel departments need to be

modernised and constantly improved to increase guest satisfaction and outperform competitors.

5.1   Comparison between clustered and unclustered hotels

This SWOT analysis is aimed to examine the advantages and disadvantages of being part of a hotel cluster, as opposed to working individually. Table 9 displays the strengths, weaknesses, opportunities, and threats of clustered hotels by combining the primary data collected from the representatives of the five hotels and the secondary data discussed in the Literature Review.

STRENGTHS	WEAKNESSES
1. Exchange of information, knowledge, and experience (hotels' representatives; Slavova-Georgieva & Bankova, 2017) 2. Mutual support (hotels' representatives; Nordin, 2003) 3. Increased productivity and better performance (Katsikis et al., 2012) 4. Higher wages due to higher productivity (European Commission, 2016) 5. Direct and indirect promotion: increased brand awareness (hotels' representatives; Shankar, 2010; Andersson et al., 2004) 6. Positive reputation of the cluster as a whole has a positive impact on the single members	1. Less flexibility in management strategies (hotels' representatives; Guinefolleau, 2019) 2. Strict monitoring of KPIs and environmental emissions (hotels' representatives) 3. One members' mistakes affect the entire cluster's reputation (hotels' representatives)

(hotels' representatives; Tu, 2011) 7. Motivation to keep standards high (hotels' representatives; Shankar, 2010) 8. Easier to achieve shared goals (Shankar, 2010) 9. More innovations (Rodríguez-Victoria et al., 2017)	
OPPORTUNITIES	**THREATS**
1. Learning from other cluster members (hotels' representatives; Marginean, 2009) 2. Increasing visibility abroad (hotels' representatives; Power & Malmberg, 2005) 3. Becoming more sustainable and implementing CSR (Slavova-Georgieva & Bankova, 2017) 4. Easier to acquire a larger market share (hotels' representatives; Kapichin, 2020) 5. More investors attracted (Shankar, 2010) 6. Facilitates innovation (European Commission, 2016) 7. Specialisation to offer unique services (Katsikis et al., 2012)	1. Reliance on the same suppliers: damage for the entire cluster if a supplier needs to be changed (hotels' representatives; Marginean, 2009) 2. Clusters with the wrong location might not see the benefits (Rodríguez-Victoria et al., 2017) 3. Stronger international competitors (Marginean, 2009)

Table 12. SWOT Analysis (representation created by the author: 09/06/2022)

According to the hotels' representatives and previous studies, hotel clusters have major strengths, which include the possibility to exchange information, skills, knowledge, experience, and resources (Slavova-Georgieva & Bankova, 2017). All of

them help cluster members increase efficiency and productivity, which lead to better performance (Katsikis et al., 2012). As a result, clustered hotels are able to offer higher wages compared to unclustered hotels (European Commission, 2016). In addition to this, clustered hotels benefit from stronger brand image, given that each cluster member promotes one another directly and indirectly, which increases hotels' brand awareness and strengthens the entire cluster's image (Shankar, 2010; Andersson et al., 2004). For instance, Bio Hotel Raphael promotes its partners directly by recommending them to their guests when the hotel has reached full capacity. The positive performance of a cluster benefits all its members, which gives them competitive advantage over independent hotels that rely only on their own success (Tu, 2011). This, in turn, motivates clustered hotels to maintain high service standards (Shankar, 2010). Moreover, higher commitment results in a higher likelihood of achieving shared goals (Shankar, 2010). For example, Der Wilhelmshof's cluster, Sleep Green, motivates its members to adapt their business strategy in order to achieve a set of social, economic, and environmental sustainability goals, which has decreased the environmental impact of several members (Sleep Green, n.d.). This constant improvement typical of clusters leads to more innovations (Rodríguez-Victoria et al., 2017), which have been proven to be essential in the hospitality industry and society as a whole to achieve economic growth (Katsikis at al., 2012). Therefore, hotel clusters generate several positive outcomes for businesses and individuals.

Joining a cluster offers significant opportunities for hotels, such as learning from the other members (Marginean, 2009), as explained by the representative of Boutiquehotel Stadthalle, which recently cooperated with another Viennese hotel's revenue manager. As for sustainability, cluster members can design their own policy and motivate each other to implement CSR effectively and lower their environmental impact (Slavova-Georgieva & Bankova, 2017), which is what Sleep Green does. The benefits of hotel clusters are enhanced by eco-certifications, as the latter increase guest and employee satisfaction, attract more guests, and increase their loyalty (Pereira et al., 2021). Since green labels improve the hotel's image, green hotel clusters have a competitive advantage compared to hotel clusters that do not implement eco-friendly business practices (Constantin et al., 2013). Furthermore, according to the representative of Der Wilhelmshof, being part of a cluster increases its visibility abroad, as Sleep Green connects green hotels located in different

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European countries. This is supported by Power and Malmberg (2005), who stated that clusters help establish connections with global businesses and compete at an international level, even though Marginean (2009) found that clusters tend to be competitive mainly at a regional or national level. Anyway, increased performance attracts investors because clusters offer more opportunities compared to individual hotels (Shankar, 2010). Concerning innovation, clusters have a higher probability to develop new patents or innovative products and services (European Commission, 2016), which represents an opportunity of specialisation as a cluster to create a niche market and offer a unique service (Katisikis et al., 2012).

On the other hand, it is necessary to mention that clustered hotels face certain threats and present their own weaknesses. As mentioned by the interviewees, e.g., Boutiquehotel Stadthalle, clusters leave less room for flexibility when it comes to management strategies and any business decisions, because clustered hotels are monitored more closely and often need to achieve specific KPIs results. This is supported by Guinefolleau (2019). Because of this, Mas Salagros EcoResort and Hotel Botánico & The Oriental Spa Garden prefer to work independently to have full control over operations. Another disadvantage of being part of a cluster perceived by the interviewees is that negative performance of one hotel can impact negatively the entire cluster worsening its reputation. Moreover, clustered hotels located in the same region might rely on the same suppliers, which represents a major risk because if a supplier exits the market or needs to changed due to other reasons, the entire cluster might be jeopardised (Marginean, 2009). In order to benefit from the advantages of hotel clusters, the latter need to have a strategic location, since otherwise they might not be able to achieve increased performance (Rodríguez-Victoria et al., 2017). Given that clusters tend to be competitive at a local level, they might have to deal with stronger international competitors that are more well-established and have a larger market share (Marginean, 2009).

Having analysed the strengths and weaknesses of both clustered and unclustered hotels, it can be affirmed that clusters' benefits outweigh the costs, since cluster members benefit from shared resources, skills, information, stronger brand image, innovation and investment opportunities. However, joining a network of hotels translates into decreased flexibility to manage the company. This, in turn, might imply

that individual hotels can better differentiate themselves and be more unique, which is Hotel Botánico's objective. On the other hand, especially for small, new hotels, which have limited resources and a lower probability to acquire a large market share, it is beneficial to join a hotel cluster to receive more support. This leads to the conclusion that clustered hotels operate in a more stimulating environment compared to individual hotels. This was confirmed by recent studies that measured the KPIs of clustered and unclustered hotels finding that hotels in clusters had a higher ADR and RevPAR (Kapichin, 2020).

Given that Mas Salagros EcoResort, which is the most sustainable hotel is not part of a cluster, and the second greenest hotel, i.e. Boutiquehotel Stadthalle, cooperates with local hotels without focusing primarily on sustainability, it can be derived that sustainability does not depend on whether a hotel is clustered or not. In other words, operating in a green cluster has a positive impact on the hotel's strategy, as cluster members have similar parameters to meet, however, independent hotels can be equally sustainable. Because of this, any hotel benefits from eco-certifications, whether clustered or unclustered (Pereira et al., 2021). The difference is that operating in a cluster brings additional advantages that individual, green hotels do not benefit from. However, cluster do have a positive impact if they are formed with the aim of being environmentally friendly, which is the case of Sleep Green.

6 Conclusion

This study's aim was to assess the impact of operating in a hotel cluster and possessing an eco-certification on hotels' performance, as opposed to operating as an individual hotel that does not focus on sustainability. Moreover, the researcher wanted to determine if hotel clusters promote sustainability. As the hotel industry keeps growing and its environmental impact is significantly contributing to worsening natural ecosystems and depleting natural resources, it is important that businesses act responsibly and change their business strategy to tackle this global challenge. The existing literature shows that sustainable companies have competitive advantage and better reputation thanks to their positive contribution to society's well-being. Because

of this, holding an eco-label is an effective way to certify a hotel's commitment and sustainable approach to operations (Constantin et al., 2013), and as confirmed by the five interviewees, green certifications are highly valued by guests. Furthermore, all the hotels emphasised the importance of innovation to respond to industry trends and stay competitive long term. Innovation applies to all hotel departments and can be used to increase quality and efficiency, and lower wastes.

In order to answer the research questions, Mas Salagros EcoResort, Boutiquehotel Stadthalle, Der Wilhelmshof, Bio Hotel Raphael, and Hotel Botánico & The Oriental Spa Garden, which are all eco-certified hotels were interviewed asynchronously, per email, and the findings were then combined with information collected from the hotels' reports and official websites to rank them based on the cluster criteria defined in the Literature Review and their environmental impact. Subsequently, a SWOT analysis was conducted to determine the advantages and disadvantages of being a clustered hotel. The data collected reveal that the hotels that best meet the cluster criteria are Der Wilhelmshof, followed by Bio Hotel Raphael. Based on the available literature and the representatives' responses, clustered hotels operate in more favourable conditions, which give them competitive advantage over individual hotels, and unclustered hotels are exposed to more risks. Concerning sustainability, the greenest hotels are Mas Salagros EcoResort and Boutiquehotel Stadthalle. Given that Mas Salagros EcoResort is the greenest hotel and is not clustered, and Boutiquehotel Stadthalle cooperates for purposes other than sustainability, it is evident that hotel clusters are not directly correlated with increased sustainability, but they can promote it if sustainability is part of their shared goals.

As for government intervention and cluster policies, the five interviewed hotels, which are located in Italy, Spain, and Austria, are not impacted by local policies, as there are no specific cluster policies in their geographic area. In particular, Italian and Spanish hotels do not receive government support or incentives to become more eco-friendly. Moreover, in Italy and Spain, the majority of hotels do not prioritise green practices in their strategy. On the other hand, the Austrian government offer subsidies to companies that invest to lower their environmental impact. In all the three countries, hotel clusters are still rare, and the stronger clusters involved in this study are those

that connect hotels located in different European countries, not in a limited geographic area.

In conclusion, this study's findings support the available literature stating that clusters encourage all their members to increase their standards to improve the entire clusters' reputation, as well as giving companies the opportunity to share information, promote each other, and keep innovation levels high (Katsikis et al., 2012). Analogously, the researcher's findings are in line with other studies' when it comes to eco-certifications (Constantin et al., 2013), as the latter attract guests and increase their satisfaction. Because of this, hotels should establish partnerships with hotels that share a similar business strategy and invest their resources to obtain eco-certifications and implement CSR effectively, which in turn improves their performance.

6.1 Recommendations

Having answered the research questions and drawn the conclusion that hotel clusters and green certifications have a positive impact on hotels' performance, yet hotel clusters are not necessarily correlated with increased sustainability, these results can be put into practice by any hotel to increase performance. First of all, especially new hotels entering a market should find partners to support them and help them establish themselves. Since hotel clusters can capture a larger market share and their members benefit from mutual promotion and reputation, it is more difficult for new hotels to compete with clusters that have more experience and are well-established in the market. Therefore, joining the cluster would allow them to learn from the other members and avoid dealing directly with stronger competitors.

In addition to this, any hotel, whether clustered or unclustered, gains competitive advantage by implementing CSR because nowadays travellers are more eco-conscious and expect companies to take action to solve global environmental issues. Yet, CSR needs to be implemented properly in order not to compromise the quality of products and services offered. Consequently, hotels should change their operations and management strategies to meet higher environmental standards and obtain a green certification. Despite representing a significant investment, becoming more sustainable generates positive returns in the long run, i.e. hotels' costs decrease.

However, hotels need to keep in mind that in order to benefit from eco-certifications, both employees and guests need to be educated about environmental issues and the meaning of those certifications. Because of this, hotels should design specific programmes to train their employees and educate them. Finally, hotel managers should focus on innovation to retain their position in the market, increase guests' loyalty and service standards to achieve higher profitability because being responsive and adaptive is key in the hotel industry.

6.2   Limitations and Future Research

Even though this study generated significant results confirming what was previously found by other researchers, it is limited to five hotels located in three different countries, which still do not have advanced cluster policies and where the majority of hotels operate individually and are not eco-certified. This was due to time constraints and the availability of potential participants who needed to meet specific requirements in order to participate. Because of this, no significant data about government intervention and sustainability policies were collected. These findings are limited to the geographic area of the EU, and further research should be conducted to assess the benefits of hotel clusters in other parts of the world. Perhaps, it would have been more neutral to have an equal number of clustered and unclustered hotels participating.

Moreover, the interview designed for this study consists of ten questions, which is a limited number to obtain thorough information about a hotel's strategy, decisions, future goals, and competitors. However, the researcher decided to conduct short interviews to make them more convenient for the interviewees and collect only the necessary information to avoid diverging to secondary aspects of the study's topic given the limited time available. Therefore, in order to understand the link between sustainability and operating in a cluster, more clustered and unclustered hotels should be examined. These interview questions did not allow to gain deep understanding of the impact of hotel clusters on social and economic sustainability more specifically; the latter were covered indirectly by looking at the hotels' overall sustainability approach, yet more data need to be collected to answer that research question. This study did not use specific key performance indicators to assess the hotels'

performance, therefore more research should be conducted on the differences between individual and clustered hotels by looking at different KPIs.

Furthermore, the available literature on hotel clustering represented a significant limitation, as cluster effects have been studied only regarding other economic sectors, and currently no studies have been conducted on green hotel clusters specifically. Similarly, scarce material could be found on the advantages and disadvantages of unclustered hotels, as current studies focus on the differences between independent hotels and hotel chains. Consequently, there is the need to fill this research gap and focus on hotel clusters that share sustainable development goals. Finally, it would be useful to make a comparison between hotel clusters limited to a single region or country and hotel clusters grouping hotels located in different countries to determine if they lead to different advantages and disadvantages.

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8 Appendices

Appendix 1: Interview guide for clustered and unclustered hotels

Interview guide for clustered hotels:

Eleonora Peruzzi
Bachelor Thesis
BSc International Management at MODUL University Vienna
Am Kahlenberg 1
1190, Wien

Please fill out the spaces below.
Name:
Position:
Company name:

By taking part in this interview, you give consent to the processing of data for research purposes.

This thesis is a comparative case study analysis to investigate on the effect of working in a certified green hotel cluster, by comparing clustered and unclustered hotels. The overall objective is to understand the link between green hospitality and hotel clustering.
Therefore, this interview aims to answer the following research questions about the topic of Hotel Clustering and its impact on hotel performance and sustainability:

Research questions:
1. How does the presence of hotel clusters impact their performance?

2. How can clustering affect the sustainability of hotels?

In order to better answer the interview questions, the definition of Hotel Cluster and the 3 Sustainability Pillars will be provided.
A Hotel Cluster refers to a network of individual hotels in a certain geographical area which are interconnected by sharing information and suppliers, marketing each other, adhering to common standards and rules.
The concept of sustainability includes 3 pillars: environmental, social, and economic sustainability. Environmental sustainability refers to protecting the environment, its resources and ecosystems. The social pillar's aim is to protect the human capital by supporting employees, stakeholders, and the local community, for example through Corporate Social Responsibility. Economic sustainability means achieving profitability and implementing the environmental and social pillars.

Interview questions for clustered hotels:

1. Does operating in a cluster have an impact on your performance?

2. Does your hotel share any business and management strategies with the other cluster members?

3. What threats do clustered hotels face?

    a. Do clusters represent an obstacle for new hotels that want to enter the market?

4. What role does innovation play in your hotels' business strategy?

5. Do EU (member state level) cluster policies influence your decisions in terms of green business practices?

    a. Are there any regulations for businesses to limit their environmental impact in your geographic area?

6. What role does the government have in promoting the three sustainability pillars in hotel clusters?

7. Do green clustered hotels have a competitive advantage compared to hotels operating individually and not focusing on sustainability?

    a. Do green clustered hotels have lower costs?

8. What impact does your eco-certification have on guest and employee satisfaction?

9. What are the obstacles when trying to become a green hotel?

10. In your opinion, are sustainability practices necessary to stay competitive?

Interview question	Source/Explanation
1. Does operating in a cluster have an impact on your performance?	Enright, M. J., Hung, S. K. (2000). *Survey on the Characterization of Regional Clusters: Initial Results.* Institute of Economic Policy and Business Strategy, University of Hong Kong. https://www.researchgate.net/publication/228599616_Survey_on_the_characterization_of_regional_clusters_initial_results
2. Does your hotel share any business and management	This question was included to collect more information on the type of interconnection

strategies with the other cluster members?	that the interviewee's hotel has with the rest of the cluster.
3. What threats do clustered hotels face? a. Do clusters represent an obstacle for new hotels that want to enter the market?	This question was including to analyse the disadvantages of hotel clustering.
4. What role does innovation play in your hotels' business strategy?	This question was included because innovation is one of the main benefits of hotel clustering according to existing literature.
5. Do EU (member state level) cluster policies influence your decisions in terms of green business practices? a. Are there any regulations for businesses to limit their environmental impact in your	Kondoh, S., Komoto, H., Kishita, Y., Fukushige, S. (2014). Toward a sustaianble business design: A survey. *Procedia CIRP, 15*(1), 367-372. http://dx.doi.org/10.1016/j.procir.2014.06.094

geographic area?	
6. What role does the government have in promoting the three sustainability pillars in hotel clusters?	Kondoh, S., Komoto, H., Kishita, Y., Fukushige, S. (2014). Toward a sustaianble business design: A survey. *Procedia CIRP, 15*(1), 367-372. http://dx.doi.org/10.1016/j.procir.2014.06.094
7. Do green clustered hotels have a competitive advantage compared to hotels operating individually and not focusing on sustainability? a. Do green clustered hotels have lower costs?	Delmas, M. A. & Toffel, M. W. (2010). Survey on corporate environmental Management Practices. *SSRN Electronic Journal*, 1-9. http://dx.doi.org/10.2139/ssrn.2260434
8. What impact does your eco-certification have on guest and employee satisfaction?	Delmas, M. A. & Toffel, M. W. (2010). Survey on corporate environmental Management Practices. *SSRN Electronic Journal*, 1-9. http://dx.doi.org/10.2139/ssrn.2260434
9. What are the obstacles when trying to become a green hotel?	This question was included to find the factors influencing hotels' decision not to invest in sustainability, in spite of its positive impact on society.

10. In your opinion, are sustainability practices necessary to stay competitive?	This question was included to gather further insights on the interviewee's perspective and knowledge of the market.

Table 13. Sources and explanation of the interview questions for clustered hotels (created by the author: 10/04/2022)

Interview guide for unclustered hotels:

Eleonora Peruzzi
Bachelor Thesis
BSc International Management at MODUL University Vienna
Am Kahlenberg 1
1190, Wien

Please fill out the spaces below.
Name:
Position:
Company name:

By participating in this interview, you give consent to the processing of data for research purposes.

This thesis is a comparative case study analysis to investigate on the effect of working in a certified green hotel cluster, by comparing clustered and unclustered hotels. The overall objective is to understand the link between green hospitality and hotel clustering.
Therefore, this interview aims to answer the following research questions about the topic of Hotel Clustering and its impact on hotel performance and sustainability:

Research questions:
1. How does the presence of hotel clusters impact their performance?

2. How can clustering affect the sustainability of hotels?

In order to better answer the interview questions, the definition of Hotel Cluster and the 3 Sustainability Pillars will be provided.
A Hotel Cluster refers to a network of individual hotels in a certain geographical area which are interconnected by sharing information and suppliers, marketing each other, adhering to common standards and rules.
The concept of sustainability includes 3 pillars: environmental, social, and economic sustainability. Environmental sustainability refers to protecting the environment, its resources and ecosystems. The social pillar's aim is to protect the human capital by supporting employees, stakeholders, and the local community, for example through Corporate Social Responsibility. Economic sustainability means achieving profitability and implementing the environmental and social pillars.

Interview questions for unclustered hotels:

1. What is the impact of operating as an independent (outside of cluster) hotel?

2. Does your hotel share any business and management strategies with the other neighboring hotels?

3. What threats do independent hotels face?

4. What role does innovation play in your hotel's business strategy?

5. What role does the government have in promoting the three sustainability pillars in the hoteling industry?

6. Are there any regulations for businesses to limit their environmental impact in your geographic area?

7. Do green hotels have a competitive advantage compared to hotels that do not focus on sustainability?
   a. Do green hotels have lower costs?

8. What impact does your eco-certification have on guest and employee satisfaction?

9. What are the obstacles when trying to become a green hotel?

10. In your opinion, are sustainability practices necessary to stay competitive?

Interview question	Source/Explanation
1. What is the impact of operating as an independent (outside of cluster) hotel?	This question was adapted to hotels that do not operate in a cluster.
2. Does your hotel share any business and management strategies with the other neighbouring hotels?	This question was included to collect more information on the type of interconnection that the interviewee's hotel has with neighbouring hotels.

3. What threats do independent hotels face?	This question was including to analyse the disadvantages of not operating in a hotel cluster.
4. What role does innovation play in your hotels' business strategy?	This question was included because innovation is one of the main benefits of hotel clustering according to existing literature.
5. What role does the government have in promoting the three sustainability pillars in the hoteling industry?	Kondoh, S., Komoto, H., Kishita, Y., Fukushige, S. (2014). Toward a sustaianble business design: A survey. *Procedia CIRP, 15*(1), 367-372. http://dx.doi.org/10.1016/j.procir.2014.06.094
6. Are there any regulations for businesses to limit their environmental impact in your geographic area?	Kondoh, S., Komoto, H., Kishita, Y., Fukushige, S. (2014). Toward a sustaianble business design: A survey. *Procedia CIRP, 15*(1), 367-372. http://dx.doi.org/10.1016/j.procir.2014.06.094
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9. What are the obstacles when trying to become a green hotel?	This question was included to find the factors influencing hotels' decision not to invest in sustainability, in spite of its positive impact on society.
10. In your opinion, are sustainability practices necessary to stay competitive?	This question was included to gather further insights on the interviewee's perspective and knowledge of the market.

Table 14. Sources and explanation for the interview questions for unclustered hotels (created by the author: 10/04/2022)

Appendix 2: Representative of Boutiquehotel Stadthalle (clustered)

Company name: Boutiquehotel Stadthalle, Vienna

Interview questions:

1. Does operating in a cluster have an impact on your performance?

We are not officially part of a cluster with other hotels, the mutual exchange takes place more informally and through cooperation partners. We also participate in an annual hotel camp, where we also exchange with other hoteliers, but these are not limited to one region, but to the DACH area.

2. Does your hotel share any business and management strategies with the other cluster members?

Yes, to some extent, especially about our sustainable practices and opportunities for improvement. I also recently had a conversation with the revenue manager of a local hotel about channel managers, web booking engines and revenue management in general.

3. What threats do clustered hotels face?

Without it affecting us specifically, but it could be difficult for hotels in a cluster to define and adhere to uniform standards and KPIs, as hotels operate very differently and sometimes work with completely different framework conditions (size, number of rooms, positioning, USP).

   a. Do clusters represent an obstacle for new hotels that want to enter the market?

I would say that it is difficult to enter a market of established, cooperating hotels. On the other hand, it is important for existing hotels to monitor who is entering the market and what dynamics this may have on existing hotels.

4. What role does innovation play in your hotels' business strategy?

Innovation is an integral part of the strategy, whereby it is always a balancing act to combine the tradition of a family business with simultaneous innovation. However, the owner of the Boutiquehotel Stadthalle, Mrs. Reitterer, has always been a pioneer in terms of sustainability in the hotel industry since she took over in 2001. At that time, she was already considered a great innovator and made people sit up and take notice with sustainable practices, at a time when sustainability was not yet an omnipresent buzzword.

5. Do EU (member state level) cluster policies influence your decisions in terms of green business practices?

Yes, for example, we have partnerships or memberships with companies and start-ups of the Green Tech Cluster in Austria. Due to their sustainable orientation, we very much welcome cooperation, as we strive to also have sustainably operating companies as partners.

   a. Are there any regulations for businesses to limit their environmental impact in your geographic area?

I'm not aware of specific regulations for our region.

6. What role does the government have in promoting the three sustainability pillars in hotel clusters?

For example, if a hotel decides to use renewable energy technologies (photovoltaic, solar), the state will provide subsidies to realise these projects.

7. Do green clustered hotels have a competitive advantage compared to hotels operating individually and not focusing on sustainability?

We are not part of a cluster, but I can answer the question as far as our focus is on sustainability. Since sustainability has been part of our corporate philosophy and strategy from the very beginning, it has definitely given us a competitive advantage. Especially because we were the first hotel in Austria to be awarded the Austrian Eco-label and the first hotel in Europe to have a zero-energy balance.

   a. Do green clustered hotels have lower costs?

For clustered hotels, I cannot make a concrete statement in this regard, but green hotels can save costs by, for example, making their food purchases more efficient and thus saving on food waste.

8. What impact does your eco-certification have on guest and employee satisfaction?

It is viewed positively by both groups, as this ensures compliance with certain sustainable criteria.
9. What are the obstacles when trying to become a green hotel?

The discrepancy between communicated sustainable practices and those actually implemented is still very large in some cases, as a uniform benchmark in the hotel industry is still lacking. The pressure to be sustainable may tempt hotels to greenwashing.

10. In your opinion, are sustainability practices necessary to stay competitive?

Yes, absolutely, by now every company not only has to present itself to the public in a way that is effective in terms of sustainability, but also actually implement it. Consumers as well as other stakeholders are increasingly paying attention to a sustainable approach to the environment.

Appendix 3: Representative of Der Wilhelmshof (clustered)

Company name: Der Wilhelmshof

Interview questions for clustered hotels:

1. Does operating in a cluster have an impact on your performance?

As a small family-owned hotel, being part of a cluster has given Der Wilhelmshof the opportunity to be seen and attract customers from all the European countries. SleepGreen is a very strong green hotel cluster, which has motivated us to become even more sustainable and monitor our environmental impact on a regular basis to maintain our status.

2. Does your hotel share any business and management strategies with the other cluster members?

Yes, we are a community that wants to be profitable while having a positive impact on society, therefore we have certain parameters to meet in order to collect points. These apply to all hotel departments, and we are assessed every year to make sure we can stay members of SleepGreen. However, each hotel has a different manager who is free to take their own decisions for their hotel.

3. What threats do clustered hotels face?

Hotel clusters might be limiting because if there are strict parameters to meet, the members have less freedom to diverge and have a different strategy. Especially green hotel clusters require its hotels to monitor its environmental emission strictly, which can be an obstacle when developing new services and products, as suppliers and raw materials need to be eco-friendly as well.

   a. Do clusters represent an obstacle for new hotels that want to enter the market?

I believe they might represent a very strong competitor, which represents a threat for new hotels. However, if the new hotel targets different customer segments, it can position itself differently and avoid competing directly with a big hotel cluster.

4. What role does innovation play in your hotel's business strategy?

We try to keep up with the industry trends, for example by implementing new technologies, using different marketing strategies, and handle information in a shorter period of time.

5. Do EU (member state level) cluster policies influence your decisions in terms of green business practices?

We respect all the EU cluster policies to achieve economic growth in a sustainable way.

   a. Are there any regulations for businesses to limit their environmental impact in your geographic area?

There are no specific regulations for the region of Vienna, but the Austria government subsidises sustainable businesses.

6. What role does the government have in promoting the three sustainability pillars in hotel clusters?

Compared to other EU countries, Austria is relatively advanced when it comes to renewable energy sources and sustainability in general. There is also more attention to employees' and communities' well-being, hence the government incentivises businesses to be more eco-friendly.

7. Do green clustered hotels have a competitive advantage compared to hotels operating individually and not focusing on sustainability?

Yes, we benefit from our cluster's image, as SleepGreen has partnerships in several European countries. On the other hand, individual hotels do not have the knowledge and experience we have.

   a. Do green clustered hotels have lower costs?

Yes, because we have lower wastes, which reduce our costs, as traditional hotels tend to spend much more on water, electricity, packaging. Additionally, we attract more customers increasing our revenue.

8. What impact does your eco-certification have on guest and employee satisfaction?

Our employees are eco-conscious and very happy to work for a green hotel, yet, being realistic, their job satisfaction does not depend on the eco-labels we have. I would say that that can be more attractive to young workers especially, who are more committed to sustainability and are aware of the importance of corporate social responsibility.

Our guests come from all over Europe to visit Vienna and they are happy to meet their needs without affecting the environment.

9. What are the obstacles when trying to become a green hotel?

For a hotel that is not new, it is very difficult to change its strategy completely to be sustainable. It is necessary to have certain experience in the field to know how to transition to a green policy. It also means changing suppliers, which might increase the hotel's costs. A solution might be increasing prices to compensate for these higher costs.

10. In your opinion, are sustainability practices necessary to stay competitive?

Yes, in the next few years almost all businesses will implement at least a few sustainable business practices to keep up with the industry trends. Guests are part of this change and they expect to see the commitment of hotels.

Appendix 4: Representative of Bio Hotel Raphael (clustered)

Company name: Bio Hotel Raphael

Interview questions for clustered hotels:

1. Does operating in a cluster have an impact on your performance?

Being part of a cluster allows us to receive more support and be promoted by the other cluster members, as we recommend other hotels that cooperate with us when we reach full capacity. This type of cooperation increases brand awareness, which benefits each hotel part of the cluster.

2. Does your hotel share any business and management strategies with the other cluster members?

Each of us has their own business strategy in terms of room rates, staffing, marketing; however, we are all certified green hotels, therefore we all aim at offering a high-quality service while respecting the environment.

3. What threats do clustered hotels face?

It might be risky to rely on the same suppliers because in case those went out of business, the entire cluster would be in a critical situation. Moreover, as we recommend the other cluster members, if one of them decreased its performance, the other hotels' reputation might be negatively impacted. Because of this, all the hotels that are part of our cluster need to keep their standards as high as possible to have a strong reputation as a cluster.

    a. Do clusters represent an obstacle for new hotels that want to enter the market?

Yes, potentially, because a cluster is a stronger economic entity, as several businesses cooperate with each other, and that makes it harder for single businesses to establish themselves. If a geographic area has a very strong cluster, I would recommend the new hotel to join that cluster, at least in the initial stages.

4. What role does innovation play in your hotel's business strategy?

Bio Hotel Raphael really values innovation because as a green luxury hotel we want to maintain our position in the market, which requires constant advancement to be better than our competitors. Therefore, we try to offer new activities by partnering with local businesses and improve the hotel's facilities.

5. Do EU (member state level) cluster policies influence your decisions in terms of green business practices?

Compared to the majority of Italian hotels, our business practices are much more sustainable, hence we do not need to worry about EU regulations because we already meet their parameters. Yet, for sure, we would conform to new cluster policies issued by the EU to stay competitive long term.

    a. Are there any regulations for businesses to limit their environmental impact in your geographic area?

In our geographical area, there are no specific regulations, therefore we respect the EU policies.

6. What role does the government have in promoting the three sustainability pillars in hotel clusters?

Unfortunately, Italy does not have very strong cluster policies that promote sustainability. In particular, the market of green hotels is not very developed, which means that as a luxury green hotel we do not have major competitors, as there are no other green hotel clusters in this region.

7. Do green clustered hotels have a competitive advantage compared to hotels operating individually and not focusing on sustainability?

Yes, because we represent a stronger tourism entity, as we support each other and motivate each other to improve to maintain the high standards of our cluster. Moreover, being sustainable gives a strong competitive advantage nowadays, which means that our brand image is stronger than the one of hotels that operate only for profit.

a. Do green clustered hotels have lower costs?

On one hand, setting up new systems that lower environmental emissions tend to be expensive, but we benefit from them by lowering our impact on the planet, which means that we need fewer natural resources to function, and by attracting more customers. Therefore, it is a productive investment to make.

8. What impact does your eco-certification have on guest and employee satisfaction?

Our eco-certifications guarantee our standards of operations, therefore they are important to our guests. When guests know their holiday does not have a strong impact on the environment, they are happier and even more willing to stay with us again. Our employees want to work with us mainly because of the hotel's reputation, as it is one of the first hotels in Rome, but being eco-certified is not the main factor that attracts them.

9. What are the obstacles when trying to become a green hotel?

Becoming sustainable requires a lot of effort initially, because a hotel might have to change its operations radically. This can be scary because managers do not know if their investment will pay off, and there is always a low probability to fail and not implement sustainable policies successfully. In my opinion, reluctancy to change business strategy is the main obstacle. Therefore, I would recommend asking advice to managers of green hotels and other sustainability experts that can set reasonable goals and realistic expectations.

10. In your opinion, are sustainability practices necessary to stay competitive?

We really think so, which is why a lot of brands are showing their commitment to sustainability by using eco-friendly recourses and green suppliers. We are all called to change our approach to business and prevent the depletion of natural resources. The hospitality industry can really have an impact and many companies are changing their business practices to meet customers' needs, who pay more attention to eco-labels and emissions generated by what they consume. In other words, hotels will have to adapt to stay competitive, also because government regulations on businesses' emissions are likely to become stricter in the next few years.

Appendix 5: Representative of Mas Salagros EcoResort (unclustered)

Company name: Mas Salagros EcoResort

Interview questions for unclustered hotels:

1. What is the impact of operating as an independent (outside of cluster) hotel?

Mas Salagros decided to stay independent to be able to have its own business strategy and have more freedom when it comes to taking business decisions. This means that the hotel does not have hotel partners, but its high quality-standards have made it very successful, also because we are the first Spanish hotel that is 100% sustainable.

2. Does your hotel share any business and management strategies with the other neighboring hotels?

No, we are completely independent and do not try to match our competitors' strategy.

3. What threats do independent hotels face?

When it comes to major investments, being an independent hotel means higher risks because resources can be more limited. The same applied to changes in business strategy. For new, independent hotels it might be harder to enter the market and acquire a large market share because they do not have close partners that support them and already well-established enough to help the new hotels through their brand.

4. What role does innovation play in your hotel's business strategy?

Mas Salagros was the first fully sustainable hotel in Spain to open, yet we keep improving to maintain our strong position in the market. This means that our resources are invested in new services and facilities to become more appealing to guests. Without innovation, hotels would be outperformed after 5-10 years they are set up.

5. What role does the government have in promoting the three sustainability pillars in the hoteling industry?

We respect the EU regulations in terms of energy consumption and emissions of pollutants.

6. Are there any regulations for businesses to limit their environmental impact in your geographic area?

There are no specific regulations for the geographical area in which we operate.

7. Do green hotels have a competitive advantage compared to hotels that do not focus on sustainability?

Yes, sure, because they can target more customer segments, both people looking for a luxury accommodation and eco-conscious tourists who also want to be in a beautiful location. Green hotels are also less subject to government sanctions because their environmental emissions do not exceed the maximum allowed.

      a.   Do green hotels have lower costs?

Yes, everything should be envisioned in the long run, because at the beginning costs are higher, but only for a limited period of time, since they progressively become lower and eventually increase revenue.

8.   What impact does your eco-certification have on guest and employee satisfaction?

Our employees are proud of working for a hotel that is fully sustainable. This makes them more environmental aware and willing to act responsibly outside of work too. As for our guests, they choose us also because of the eco-certifications we hold, as they are recognised by the EU. These labels increase guest satisfaction because nowadays it is very important to protect the environment, and people that do so feel they are responding to a global challenge.

9.   What are the obstacles when trying to become a green hotel?

It is quite challenging to find sustainable suppliers because it is not always easy to replace good, buy highly polluting suppliers with green ones. Moreover, the management might be reluctant to change business strategy and become eco-friendly, also due to a lack of funds.

10. In your opinion, are sustainability practices necessary to stay competitive?

Yes, because sustainability is essential to preserve natural resources and be able to run businesses long-term. Everyone should contribute to the well-being of all living things, and this applies also to hotels, which can actually influence and educate all their stakeholders. People are slowly understanding this need of being sustainable, which is why businesses have to commit to meet customers' expectations.

Appendix 6: Representative of Hotel Botánico & The Oriental Spa Garden (unclustered)

Company name: Hotel Botánico & The Oriental Spa Garden

Interview questions for unclustered hotels:

1. What is the impact of operating as an independent (outside of cluster) hotel?

We definitely have more freedom when it comes to setting our own prices, developing our own policies, and offering new services. Since we are independent, our business strategy is unique and is adapted to our guests and market trends.

2. Does your hotel share any business and management strategies with the other neighboring hotels?

No, we are completely independent because we do not partner with any hotels. Moreover, we offer a different service, as we are the only hotel located next to a natural reserve and focusing on sustainability in every hotel department.

3. What threats do independent hotels face?

Especially during economic recessions, including the Coronavirus pandemic, independent hotels are more vulnerable because they are not supported by other business entities. Because of this, it is easier to run out of liquidity when revenue decreases significantly. In addition to this, independent hotels might struggle to achieve a higher market share, as they have to compete with large hotel chains and hotel clusters that contribute to each other's success.

4. What role does innovation play in your hotel's business strategy?

We try to prioritise innovation in every department because we want to stay competitive in the long run, as well as retaining loyal customers by offering them something new every year. We do our best to create new products in F&B that use local products and help the local community, and services that are sustainable and efficient. It is very important to keep advancing to outperform competitors and strengthen the hotel's image.

5. What role does the government have in promoting the three sustainability pillars in the hoteling industry?

The Spanish government adheres to the EU sustainability policies, which limit businesses' environmental emissions without giving strict requirements to meet.

6. Are there any regulations for businesses to limit their environmental impact in your geographic area?

Currently, there are no strict regulations in Tenerife, however we respect the EU environmental standards, which apply to any business sector.

7. Do green hotels have a competitive advantage compared to hotels that do not focus on sustainability?

Yes, because being a green hotel attracts guest from all over the world, as people have become much more eco-conscious: when they go on holiday, they want to have a good time, but also preserve the environment,

which is why they choose us, as we are a luxury, green hotel. Furthermore, green hotels have a stronger brand image because they do not focus only on profits, but also on protecting the environment and the local community.

     a.   Do green hotels have lower costs?

Even though it might seem that sustainability brings higher costs, in the long run costs become lower because this investment pays off through attracting more guests and reducing operating costs because less energy is needed and more efficient systems are used to perform tasks.

8.   What impact does your eco-certification have on guest and employee satisfaction?

Eco-certifications make us even more trustworthy because they prove the hotel's commitment towards sustainability and attract potential guests that are looking for certified accommodations to be sure about the hotel's strategy. Moreover, our guests' satisfaction is very high because guests are happy to have enjoyed their holiday while protecting the planet. Analogously, our employees are proud to work for a company that has a very good reputation in Spain and abroad because of its high-quality standards and low environmental impact. This makes employees more committed and motivated.

9.   What are the obstacles when trying to become a green hotel?

For sure, becoming sustainable requires proper management because operations need to be monitored, otherwise they will fail, and knowledge is needed to adopt eco-friendly business strategies. Another obstacle can be capital to make the initial investment, as small hotels do not always have the necessary resources to make that shift.

10. In your opinion, are sustainability practices necessary to stay competitive?

Yes, because in all economic sectors, businesses are becoming more sustainable to respond to today's global challenges, meet regulation, and increase customer satisfaction. In the near future, being eco-friendly will become standard to stay competitive because customers' expectations are changing, and they want to make responsible choices in their everyday life.