Structural Characteristics of the Hotel Industry and Their Effect on Adoption of Environmental **Initiatives**

A Cross-Discipline Study

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Abstract | This study attempts to answer one question: are there structural characteristics of the hotel industry that has caused it to historically be reluctant in embracing environmental responsibility? To do so, the study draws on a number of different research areas in different disciplines, including business, management, and environmental management. It also attempts to draw upon industry sources like trade magazines and publications, as well as corporate information and primary interviews with industry stakeholders and insiders. Through a marriage of these sources, the study identifies four levels - property, brand, corporation, and industry - whose characteristics together define the hotel industry structure and have, and will continue to affect, the ability of hotels to implement environmental responsibility programs. The study also suggests how the conclusions and findings from the research contained herein can be applied for both future studies and applications in real-life, on-the-ground scenarios.



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Executive Summary

Tourism is one of the largest industries in the world, and is even considered by the UN World Tourism Organization as the biggest industry in the world when related and complementary industries are taken into consideration. Recent accounts show that nearly one billion tourists leave their homes each year. With this outsized footprint, the tourism industry has ample potential to accomplish the positive effects highlighted above. Yet, at the same time, tourism also has the potential to wreak havoc in nearly every part of the world that it touches – if it is not managed effectively.

Lodging, and hotels in particular, are one of the most visible and significant parts of this large industry. The top 100 hotel companies in the world boast more than 4.75 million rooms, a figure that makes the lodging industry unavoidable when considering environmental impacts. The industry – one based on moving people around, and often encouraging consumption – is known for its consumption of natural resources like water and energy, expulsion of large amounts of wastewater and waste, and potential landscaping and infrastructure construction that can lead to both erosion and soil degradation. Further, the industry has traditionally been based on small hotels and individual owners, with the structure only meaningfully shifting in the past two decades towards large-scale corporations.

Low individual impacts, small, individual ownership, and dispersed decision making are some of the characteristics of an industry that has been slow to address their high aggregate environmental impacts. Today, the increased corporate stake in the industry, combined with far-greater consumer interest in greener operations has led to a number of announcements of high profile environmental policies. Yet, the impact across individual properties remains low, and wide-ranging policies exist on paper but are still difficult to implement at individual properties – and have seen little progress at a majority of individual properties.

The objective of this study then is to attempt to identify underlying factors within the industry that have contributed to these current conditions. Namely, this study attempts to answer the simple question: are there structural characteristics of the hotel industry that has caused it to historically be reluctant in embracing environmental responsibility? In doing so, it explores the idea that there may be industry-specific, structural characteristics in hospitality that have contributed to the industry's history of adoption and enthusiasm to environmental responsibility.

The importance of the answer to this question is clear. Not only can we better understand why an industry with such high aggregate impacts has been slow to address them, but we can begin to understand what factors drive decision making in the industry. The answer can also help to explain why large hotel chains are still finding it difficult to implement wide-reaching environmental programs across their properties, whether far-reaching corporate environmental strategies are realistic, and begin to provide insight into how the industry can adopt measures that are best suited to its unique structure.

By focusing on large hotel chains, the study is both acknowledging the overall trend in ownership and operation within the industry (towards large chains and institutional ownership), as well as hoping to tap into the potential of wide-reaching hotel chains to make meaningful changes to the industry's aggregate environmental impact. Although no specific hotel chains were chosen for this study, the study has been opportunistic in its interviews, and where industry statistics were needed, it has relied on company information from the top five or ten hotel groups as ranked by accepted industry sources. Beyond primary research, this study has also drawn on a variety of sources, including academic literature, industry research, and trade organization information, to create a wideranging literature review and serve as the foundation for the findings contained within.

A key contribution of this study is the industry framework that serves as the analytical and organizational basis for analysis of the decisional conditions faced by large hotel chains in the industry. Four levels – the property level, the brand level, the corporate level, and the industry level – are identified. These four levels are based on business reality of the industry and together, are reflective of the modern structure and parameters that most large, multi-national hotel companies make decisions within. Use and understanding of this framework can help bridge communication gaps between stakeholders in government, non-profit, and traditional eco-efficiency

professionals and those within the hotel industry. This in turn, can lead to environmental strategies and solutions that are better tailored to the industry, designed to overcome in-built obstacles, and generally more effective. The study identified specific structural characteristics at each level that serve as obstacles to the adoption of environmental initiatives at individual hotel properties. Research and findings examine the contextual foundation for these obstacles and highlight their effects on environmental-initiative related decisions.

At the property level, stakeholder relationships are often affected by issues like agency theory. The relatively recent interest of real estate investment funds in hotel properties has changed ownership structures at large, capital-intensive hotels, and increased the complexity of management. Today, large hotels often have multiple stakeholders, including institutional investors, franchisors, and management companies – many of which are large corporations that are highly specialized in one specific hotel-related function. This stakeholder structure has resulted in decision making processes that are more difficult and potentially affected by greater conflicts of interest, especially on environmental initiatives that require capital investments or have more complex (and often different) benefits for different stakeholders at the property level.

At the brand level, the rapid growth and adoption of customer and market segmentation practices at major hotel brands has radically changed the way hotels target customers and make investment decisions. The use of technology to analyze ever-greater amounts of increasingly granular data has allowed hotels to position themselves in the market to a great degree and target customers with offers and value propositions specific to their needs. However, this has also led to a change in the prevailing business model, where differentiation in the marketplace drives both innovation and product offerings. One of the major results is that hotels seek a market justification for implementation of environmental initiatives, and have searched for a "green consumer" segment that has thus far been difficult to find and has contributed to the lack of mainstreaming of environmental initiatives in the industry.

At the corporate level, the industry as a whole has witnessed large changes in corporate structure, with essentially all of the major hotel corporations pursing a multi-brand strategy. This aligns closely with greater customer segmentation and brand differentiation, as hotel franchisors and large chains searching for growth target brands at finely defined market segments. At the same time, corporations that have invested heavily in building brand equity across their brand portfolios are seeking to expand geographically, and most of the largest hotel companies operate in a large number of countries across the globe. This multi-branded corporate model naturally results in complicated logistical issues for hotel groups attempting to implement a corporate sustainability strategy across geographies. Moreover, with brands that range from budget to luxury, hotel groups are faced with the difficult task of crafting a strategy that is acceptable by a wide range of owners and customers — a task that often yields amorphous, generalized, lowest-common-denominator type plans that are difficult to implement and require a lot of work at individual properties.

At the industry level, it is important to understand how hotels and hotel corporations measure their own performance. The emphasis placed on occupancy and revenue per room reflects the financial realities of the hotel industry, one characterized by high initial investment resulting in high sunk costs and relatively low operating costs. Thus, hotels are naturally pre-occupied with maximizing revenues from available rooms – an issue common to the service industry known as perishability. Cost-cutting, a major catalyst for adoption of environmental initiatives within many process industries, is much less of a driver in the hotel industry, where labor is easily the largest cost center. Further, since the product is actually the provision of a night of lodging, many conservation measures that yield costs savings will only do so when rooms are occupied. Expensive capital improvements to reduce water or energy usage in rooms only make sense for hotels if rooms are occupied and guests are actually using these resources.

Thus it can be seen that there are in-built obstacles at every level of the hotel industry that act as significant barriers to the implementation of environmental programs and strategies. This study contends that these obstacles are structural in characteristic, mutually reinforcing, and greatly affect the decision making process for professionals within the hotel industry. Given this set of structural barriers, decision makers, are in many regards, essentially making choices that are logical and make common sense given the circumstances of their situation.

Both implementation and avoidance of environmental initiatives within the hotel industry today can be better understood through the lens of the framework presented within this study.

This study asserts that, in order to facilitate greater environmental initiatives within large hotel chains, solutions must be targeted at overcoming obstacles and modifying the industry structure. They must change the equation so that decision makers are provided with environmentally friendly choices that are also easy and logical to undertake. The framework presented in this study can be utilized to identify critical lever-points in the structure of the industry where different types of change agents – regulatory, free market, advocacy, or other actions – can be applied to the greatest effect. While this study does not attempt to explore or present any of these solutions, it is clear that follow-on studies utilizing the findings from the framework utilized in this research can yield important potential solutions that are targeted and customized for maximum efficacy in the hotel industry.

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1. Introduction

1.1 Background

1.1.1. The role of tourism

Tourism has long been highlighted as a potential tool for advancing human and economic development, in both developed and less-developed nations alike. It has been noted to serve as "a tool to aid or drive regeneration and economic development as well as enhancing the quality of life of visitors and host communities" (TSG, 2007). It is fair to say that the potential benefits of tourism are many – it has the potential to draw outside investment to depressed regions, to be a catalyst for the development of valuable infrastructure, to nurture local industries and create jobs, to serve as a vehicle for greater cultural understanding and promote peace, and to raise awareness about environmental issues (Neto, 2003; UNWTO, 2001; Beccali, La Gennusa, Lo Coco, & Gianfranco, 2009). In depressed and under-developed areas with little or no natural resources of export value, the importance of tourism development cannot be overstated. It is often one of the only plausible long-term economic development options available; "of the 100 or so poorest countries, tourism is significant in almost half of the low-income countries and virtually all of the lower-middle income countries" (UNWTO, 2002).

Yet, even if tourism did not have the potential to impart these positive benefits on society, it would nonetheless remain extremely important simply for the sheer size of the industry globally. Described as "the largest migration in the history of humankind" (Budeanu, 2007), international tourist arrivals in 2007 topped 900 million and accounted for US\$856 billion dollars in revenue – a major international trade category from any perspective, and ranked fourth in export income generated globally. What's more, the explosion in the size of the industry has been fast and decisive – only 25 million arrivals were recorded in 1950 with 4% growth a year from 1995-2007 alone (UNWTO, 2008). Indeed many now consider tourism the world's biggest industry when the jobs, customers, and revenues generated by it and its peripheral industries are accounted for together (Christ, Hillel, Matus, & Sweeting, 2003).

With this outsized footprint, the tourism industry has ample potential to accomplish the positive effects highlighted above. Yet, at the same time, tourism also has the potential to wreak havoc in nearly every part of the world that it touches – if it is not managed effectively. Conservation International explores the potential impact of growing tourism arrivals on biodiversity hotspots, listing potential negative impacts on biodiversity from infrastructure development, construction, real estate development, or urban sprawl that might arise from

tourism development (Christ, Hillel, Matus, & Sweeting, 2003). These effects are by no means restricted to biodiversity hotspots either – construction of tourism facilities and the resource pressures that large influxes of people have on a location can be staggering (Beccali, La Gennusa, Lo Coco, & Gianfranco, 2009). UNWTO (2002) discusses the potential negative economic and social consequences of tourism, including "unfair labor practices, the sexual exploitation of women and children, begging and theft" arising from the sudden mixing of people with widely disparate levels of wealth, as well as large social and cultural disruptions from both emigration and immigration of people away from and into tourism areas.

1.1.2. The role of hotels

The fate of hotels is tied intricately to that of tourism, and as tourism has grown to a mind-boggling size, so lodging has done also. Paul Slattery (2009) states that his Otus Hotel Brands Database is the source of record on hotel brand supply and includes details of every hotel company with 4 or more hotels in Europe, making it "the largest and by far the most sophisticated database of hotel supply in the world." As founder of the database, Slattery is no doubt a bit biased, but Otus does provide an idea of the size of the industry: in 2007, Otus boasted 13,343 hotels, accounting for 1.65 million rooms – and these figures represent hotels, largely in Europe, that are *tracked* by the database. Hotel brand rankings published by Hotels Magazine (2008), often cited within the industry, show that the top 100 brands list more than 4.75 million rooms to their names.

As these figures make clear, the impact of the lodging industry on the environment must be considered, just as tourism's impact is, and for the same reason – size (Chung & Parker, 2008). The industry is known for its consumption of natural resources like water and energy, expulsion of large amounts of wastewater and waste, and potential landscaping and infrastructure construction that can lead to both erosion and soil degradation (Scanlon, 2007). Paulina Bohdanowicz (2006) cites a study that estimates "75 per cent of all environmental impacts created by the hotel industry can be attributed to the excessive consumption of local and imported non-durable goods, energy and water, followed by emissions released to air, water and soil." These impacts are magnified because significant portions of the industry are based on enticing customers to part with their money while being "pampered, with lashings of hot water, high-pressure showers, freshly laundered linen, an ample supply of towels, copious supplies of food and drink, the availability of swimming pools and saunas..." (Kirk, 1995).

Yet the fact is, the industry has traditionally be characterized by smaller, individual or entrepreneurial operations and it is not one "which causes gross environmental pollution...[or] consume vast amounts of non-renewable resources." (Kirk, 1995). At the same time, when impacts from individual operations are multiplied the overall effect is quite large. In other words, while each hotel room may seem insignificant, when the impacts of those rooms are multiplied by millions, the industry is faced with a serious problem that needs to be addressed.

1.1.3. The growing environmental consciousness

Convincing small hotels that their individual effects on the environment require action and investment has been one of the traditional obstacles to a more eco-conscious lodging industry. However, changes to business operating models within the industry in the past two decades – changes that have moved the lodging industry, in the United States especially, away from individual owners towards corporate ownership – and an increasing awareness of the importance of being environmentally responsible has not contributed as much to overcoming these obstacles as could be expected (Tzschentke, Kirk, & Lynch, 2008). Jim Butler (2008) contends that the hospitality industry has "been waiting for increased consumer demand and lower costs before it fully embraced green operation" while Bohdanowicz (2005) documents that hoteliers need to see demonstrated proof of the cost savings that environmental initiatives can yield.

Yet, although the road has been long and the journey slower in lodging than in many other industries, the fact is that management is today, more than ever, saying all of the right things when it comes to greening their business (WTTC, 2008). It is clear from the slew of articles that have appeared in industry journals in the past two years that it is undeniably 'hip' to be 'green' today in the hospitality industry. Titles and subtitles of articles speak volumes about the enthusiasm for green in the industry today: "sustainability makes good business sense" (Naditz, 2008), "going green in the laundry" (Offshack, 2007), "please do not disturb (the environment):

greening your hotel" (Aker, 2008). The industry has re-evaluated its position on sustainability initiatives and "green" hotels are becoming more commonplace; examples of hotels within every market segment undertaking high-profile and well-publicized environmental and sustainability initiatives can now be found around the world (Pizram, 2009; E&Y, 2008). These changes are due in no small part to changing customer profiles and increasingly mainstream eco-consciousness – the result partially, of the high profile of the climate change crisis in the past five years coupled with challenging and changing business conditions.

High-profile announcements on environmental initiatives by a number of the most well-known and largest hotel groups, including Marriott International, Hilton Hotels Group, Intercontinental Hotels Group, and Wyndham Worldwide, have suggested that the industry is truly serious about environmental responsibility. These group-wide programs promise to cut resource usage, obtain green building certifications, implement environmental performance tracking systems, and increase information sharing across properties. At the same time, although these programs are presented in grand fashion, the actual plans are often much less ambitious and much less ubiquitous.

Marriott, for example, promises to offer coreless toilet paper in order to save trees, water, and packaging in hotels by the end of 2009; they only plan to do so in 500 hotels though (Marriott, 2009). Hilton announces that it is "committed to the advancement of renewable energy as a source of power" but then goes on to list a single hotel that has installed a commercial fuel cell power system (Hilton, 2008). These actions raise the nagging suspicion that perhaps these large hotel corporations, despite words to the contrary, are still waiting to embrace green operations.

1.2. Objective and Research Question

Hotels have been relative latecomers to the industrial environmental agenda. According to some researchers, sustainability and social responsibility have only been trends in the lodging industry since Agenda 21 was unveiled at the Rio Earth Summit in 1992 (Holcomb, Upchurch, & Okumus, 2007). In the same year, the International Hotels Environment Initiative was launched with the agreement of 11 major hotel chains to cooperate on environmental initiatives; before this, there "was not all that much interest in environmental management" (Kirk, 1995). Many industries, faced with high energy costs in the 1970s and mounting environmental pressures in the 1980s, began adopting early forms of eco-efficiency measures to cut down on their waste and resource usage, allowing them to save costs on both inputs and waste output (Kirk, 1995; Mullally, 1976).

Lodging's early reluctance to embrace sustainability trends can in large part be attributed to the industry characteristics (small owners, large industry) highlighted above. However, the industry has changed over the past 20 years, with the rise of a number of extremely large multi-national hotel groups. The MKG Hotel Groups ranking in 2008 shows that the top 10 hotel groups in the world account for nearly four million rooms (2008). Yet, with a few notable exceptions at smaller chains like Fairmont Hotels and Resorts and Scandic Hotels who have both been involved in greening their operations since the early 1990s, (Fairmont, 2007; Altomere & Altomere, 1999) the wide-scale adoption of environmental programs in this corporate setting has been relatively low. Moreover, although many major chains have announced environmental programs in the past two years, adoption of eco-initiatives at individual properties – in any systematized, large-scale, cross-brand way – has yet to catch up.

The objective of this study then is to attempt to identify underlying factors within the industry that have contributed to these current conditions. Although the study will not draw on outside sources concerning the adoption of eco-efficiency measures in other industries, it nonetheless uses as a hypothesis that there may be industry-specific, structural characteristics in hospitality that have contributed to the industry's history of adoption and enthusiasm to environmental responsibility. As Dolnicar and Leisch (2008) point out, there has been much research into supply-side strategies at hotels (how to minimize the impact of tourism suppliers) and demand-driven strategies (identifying actionable segments of environmentally conscious tourists).

There have also been studies that attempt to examine "idiosyncratic" capital budgeting processes (Guilding, 2003), obstacles to "best practices" (Scanlon, 2007), decisional factors for hotels to go green (Tzschentke, Kirk, & Lynch, 2008), owner awareness (Bohdanowicz, 2005), the "green" customer segment (Dolnicar, Crouch, & Long, 2008), and the industry business practices like franchising and management contracts (Xiao, O'neill, & Wang, 2008). Yet, in academia's need for specialization, there seems to be little to no attempt to aggregate these disparate fields of study to provide a more comprehensive overview of the unique characteristics and structurally influenced driving forces of decision-making within the industry.

The goal then of this paper will be simple. It is to answer the single research question of: are there structural characteristics of the hotel industry that has caused it to historically be reluctant in embracing environmental responsibility? The answer to this question can also help to explain why large hotel chains are still finding it difficult to implement wide-reaching environmental programs across their properties, whether far-reaching corporate environmental strategies are realistic, and begin to provide insight into how the industry can adopt measures that are best suited to its unique structure.

1.3 Scope of Study

The scope of this study is at once both broad and limited. As an attempt to paint a more comprehensive picture of the characteristics of the hotel industry that affect adoption of environmental responsibility in corporations, the study will necessarily draw on a number of different and varied sources. The paper draws on academic disciplines as varied as marketing, branding, segmentation, performance management, revenue management, environmental management, customer loyalty, customer psychology, training, and organizational dynamics.

At the same time, the study is limited in scope to discussing conditions at the largest, multi-national hotel chains in the world. This decision was made consciously, for both practical and ideological reasons. While independent hoteliers and small chains still make up a large portion of the overall market – and by examples of progressive and agile companies like Kimpton Hotels and Resorts and Joie de Vivre, often market leaders in environmental responsibility – this population makes for a difficult and potentially less useful study. From a research standpoint, the sheer number of small independent hotels, combined with their geographic dispersal and varied economic conditions would hamper efforts to gather information and to draw conclusions across hotels. At the same time, hotels within this segment may be affected as much by individual personalities – both CEOs at Kimpton and Joie de Vivre are well-known environmental champions – as anything else and thus, while potentially yielding an interesting study on leadership, not answer the research question posed by this study.

Large hotels chains provide a more consistent set of variables to examine, and because of their largely public shareholder-owner nature, more limited effects from the influence of outsized personalities. Further, as highlighted above, the sheer size of today's largest hotel chains makes the impact of any environmental initiative successfully undertaken across their properties disproportionately large due. Moreover, large hotel chains are highly visible in the industry and have the opportunity to be enormously influential. Understanding why large hotel chains have been slow to adopt environmental responsibility could allow for future initiatives to overcome these obstacles and set-up large hotel chains as leaders in the industry instead of followers.

Some aspects of this study, especially in relation to stakeholder relations and market segmentation are quite applicable across the industry, not just with large chains. Others like performance measures and especially multibrand dynamics may be more relevant to large chains, but do not necessarily have to be so. From a market segmentation standpoint, this study made no conscious differentiation between hotel classes, especially since most large hotel companies feature brands at nearly every-price level. If there was an unconscious bias within the study, it was likely towards upscale hotels; as visible representatives of the hotel industry, upscale hotels often provide a model of service and amenities that the entire industry aims for. It is possible to theorize that successful mainstreaming of environmental responsibility initiatives at upscale hotels may indeed help these programs trickle down into economy hotel chains, but this study makes no attempt to do so and has found little evidence that this is true.

Research for the study did not focus on any specific hotel groups, although where necessary, the study defaults to examining the top five or top ten largest global hotel groups by number of rooms. Where necessary financial information, and industry reporting were gathered about these large hotel groups. In the interest of continuity and practicality, company contacts and interviews were largely limited to these hotel groups also, although when opportunities came up throughout the study to speak with people in the industry outside of these top ten hotel groups, they were taken advantage of.

Geographically, the study focuses on the hotel industry in North America but is by no means limited to it. The increasingly global nature of the hotel industry means that concepts and characteristics once unique to North American firms, like widespread franchising or the involvement of real estate investment trusts, are now spreading to the rest of the world. While some descriptions and conclusions in this study are likely better suited to the North American market, the dynamic nature and increasing erasure of boundaries in the world lodging industry means that geographical differences – especially in relation to corporate and industry structures – will continue to lessen.

1.4 Methodology

1.4.1. Structure of Study

This study has been developed around one major theme – structural characteristics of the hotel industry that may be obstacles to adoption of environmental responsibility. Within this theme, the paper has identified four different levels where lodging's unique structure may influence these decisions: the property level, the brand level, the corporate level, and at the industry level.

Section 2 deals with the structural issues identified at the property level. Specifically, it examines the relationship between stakeholders at individual properties, which often include two or more corporate entities, from the perspective of issues like agency theory. It highlights how the stakeholder structure, with potentially differing financial and strategic goals, often impedes environmental decisions at properties.

Section 3 discusses structural issues at the brand level. It provides insight into how trends in customer and market segmentation within the industry have created highly specialized and targeted brands for specific consumers. This has contributed to a paradox of "consumer demand" for green initiatives, causing brands to segment themselves as either "green" or not and act appropriately.

Section 4 describes structural issues at the corporate level. In this section, corporate is defined as the hotel group level, or the multi-national hotel franchisor and operator level. It discusses the recent evolution of the hotel industry towards a multi-branded model, looking specifically at how the largest hotel groups today, with multiple brands targeted at multiple segments face significant obstacles in creating and implementing corporate-wide environmental programs.

Section 5 looks at structural issues stemming from industry performance metrics. Drawing on issues of performance measurement, financial indicators, and characteristics of a service industry, this section shows how prevailing metrics and the idea of perishability have hampered adoption of environmental initiatives, even obviously beneficial ones like eco-efficiency measures.

Each section starts with an overview of the topic in question, discussing historical and current characteristics of that specific area. Based on these discussions, the study then attempts to analyze the situation and draw conclusions about the effects of the structural characteristics identified on the industry's adoption of environmental initiatives.

While each level is connected, as highlighted in Figure 1.4.1, they can all be treated as separate areas of study also. As such, from a methodology point of view, this paper takes a somewhat non-traditional approach to organizing itself. Instead of providing an overarching literature review – which would be difficult to do given the

broad horizontal scope of this study – the paper instead integrates a literature review into each of the four topical sections mentioned above.

Finally, the conclusion of this study points out how the pieces within the study can fit together, providing researchers with a better understanding of the challenges faced by corporations attempting to implement company-wide, cross-brand initiatives. It also provides suggestions on how to utilize the analysis contained herein to develop further studies that can support these corporate efforts.

1.4.2. Data Sources

Unlike many academic studies that are concerned with filling in research gaps, this study is instead attempting to go the opposite direction – by providing an analysis that can help serve as the foundation for a new, overarching framework with which to examine environmental responsibility adoption in the hotel industry. As such, it will necessarily draw on resources from a wide array of disciplines, while attempting to marry and make sense of them. It is important here to point out another desired outcome of this study, which is to help promote the integration of real-world information and experiences with academic and scholarly research by illustrating how the two can compliment each other and lead to a deeper and more holistic perspective on issues within the business world.

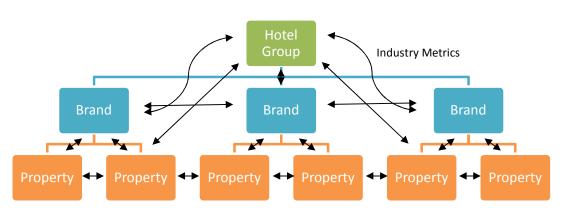


Figure 1.4.1. Relationship of Study Areas

Therefore, this paper draws liberally upon industry research, trade publications, and company information. While the study recognizes that there may be inherent biases and lack of "scientific rigor" in such sources, the usefulness of said sources in helping to understand industry's perspective and situation is nonetheless instructive. Further, given the corporate nature of the industry, the lines between industry and academia are blurred at times; research found that even articles published in established, peer-reviewed journals like the Cornell Hospitality Quarterly were sometimes authored or co-authored by people with a financial interest in the hospitality industry. The study attempts to navigate these sources as objectively as possible, however also posits that industry sources need not be discounted when used appropriately.

As mentioned above, this study looks at topics from business management, marketing, environmental management, and customer segmentation to name just a few. A literature review in relevant journals was conducted over the period of three months. Since this study attempts to cover a large number of research areas, it was not possible to conduct a comprehensive literature review. Instead, this study attempted to search for studies by identifying and searching for articles written by authorities in their field, search specific search terms, and cross-referencing articles and authors. While this study makes no claim on having a complete literature review by any measure, it does attempt to present authoritative studies in many disciplines.

The study also attempted to interview relevant people within the industry. Initial contacts were made with corporate personnel located in America from some of the leading hotel groups through email or cold-calls based on contact information discovered on press releases or corporate websites. Cold-call and drop-in visits were also conducted at hotels in the San Francisco Bay Area. Area hotel owners associations and hospitality organizations

were also contacted in an attempt to speak with more hotel personnel; these efforts yielded nothing however. Overall response rates with hotels and corporate staff were low, despite repeated follow-ups, which explains the relatively low number of interviews referenced in this study.

Figure 1.4.2. Interviewee List

Interviewee	Title	Company
Dianne Dahlberg	Green Team Member	The Fairmont San Francisco
Scott Larsen	General Manager	Holiday Inn Select, San Antonio/InterContinental Hotels
Jo Licata	Community Projects Manager	Hilton San Francisco
Denise Naguib	Corporate Director, Environmental Programs	The Ritz-Carlton
Rene Sas	Food and Beverage Cost Controller	Holmenkollen Park Rica Hotel
Paul Savarino	Director of Engineering	The Ritz-Carlton, San Francisco
Bennett Thomas	Director of Finance	The Hersha Group
Don Vincent	Director of Engineering	The Fairmont San Francisco

Interviews that were conducted were usually

done in a semi-structured, one on one format. They generally lasted between 45 minutes to 1 hour and 15 minutes. Telephone interviews were recorded electronically while face-to-face interviews were recorded only through note-taking by the author.

1.5 Limitations and Assumptions

This study was intentionally developed to include a broad range of traditionally uncombined research areas. The reasoning for doing so was to approach the topic of environmental responsibility at hotels from a new angle, understanding the root causes of the industry's reluctance in embracing sustainability so that new approaches to support and research in the field can be designed with the industry's specific characteristics in mind.

However, in order to do so, this study has been necessarily broadened to include a wide-variety of disciplines – each in themselves recognized and deep fields of study. Yet, the danger in this approach is that the research conducted in this study has been insufficient. While this study readily admits that it does not attempt to be comprehensive, there is still the chance that it has missed important or foundation-changing information, or has drawn conclusions from an incomplete understanding of particular research areas.

Further, in an attempt to marry different disciplines together, this study has attempted to logically draw conclusions from the combination of different issues. The danger is that, as an expert in none of the disciplines utilized in this paper, complex interactions between different issues may be overlooked. Liberties, necessarily taken, on the relative importance of particular pieces of research may yield incorrect conclusions due to a lack of truly comprehensive knowledge of past research in that field.

As a theoretical study that attempts to provide foundational analysis for a potential framework (to be developed) from which to design future environmental responses for hotel companies, this study drew on the theoretical, historical, and factual parts of many of the studies cited here, as opposed to utilizing some of the statistical analysis data contained within. These datum, while often very enlightening, were not highly relevant for this study. This was a conscious choice, but must be pointed out here lest readers question the selection of content from citations in this study.

This study is also limited by the lack of primary data. Although every attempt was made to obtain more interviews, numerous "real-world" reasons hampered this effort. Some potential interviewees were justifiably concerned about the purpose of the study, the background of the author, and the way information that would be obtained in an interview would be used. Numerous contacts never replied to emails or voicemails. Those that

did but refused to be interviewed largely cited time as the main reason. From the limited interviews that were conducted, this is a completely fair reason – people in the hotel industry are busy, especially frontline employees. However, the inability to gather more primary data is no doubt a limitation of this study. Greater access to employees within the industry would have provided a more statistically relevant sample of opinions, allowed broader testing of hypotheses and conclusions, and a clearer understanding of how the obstacles identified in this study are actually affecting individual hotel properties. The lack of an opportunity to speak with individual, entrepreneur-level hotel owners is also unfortunate, as interviews with this group of owners could have allowed better testing of the stakeholder analysis done in this study.

Finally, as has been previously touched upon, some may find the liberal use of industry research, corporate information, and information from industry media to be a source of concern for a scientific paper. This may indeed be the case. However, this study also draws from extensive research in academically respected fields of research and respected, peer-reviewed journals. More importantly though, through this research, and through the limited discussions with frontline employees – the ones responsible for making actual hotels more environmentally responsible – one thing has become clear. There are numerous, valuable studies in existence on various aspects of the industry that hoteliers will never be able to apply in their day-to-day operations. Many reasons exist for this – inaccessibility of the research, emphasis on scientific issues over applicability, and a focus on issues that are unimportant to employees within the industry are just three examples. However, it is the belief of this author, and a basic principle of this study, that in order to affect real change in environmental responsibility in the hospitality industry, research must be applicable in the field. This study hopes, in some small way, to contribute to greater dialogue, information sharing, and understanding in the field and bring more parties from different disciplines and professions to the table to develop solutions.

2. The Hotel Industry at the Property Level

2.1. Changes in the structure of the industry

There was a time when most, if not all, hotels were like family-affairs. Properties were owned, managed, and marketed by the same group of people. However, the hotel industry has changed dramatically. Today, hotels can be large corporate affairs, with physical assets, operations, development, brand and marketing often handled by different entities. Figure 2.1.1 is a basic representation of the

Figure 2.1.1. Stakeholders Groups at Hotel Properties



Source: Analysis

stakeholders that might be involved in the operation of a typical large-chain hotel. Properties from the largest chain hotels can have extremely complex ownership and operating structures. Similarly, the stakeholders involved can themselves be very complex and with differing interests. For instance, the Ritz-Carlton Chicago is actually operated by the Four Seasons and uses the Ritz-Carlton name under special license. The property itself is owned neither by the Four Seasons or the Ritz-Carlton; it is instead owned by JMB Realty Corporation, a privately held real estate investment firm.

Thus, the corporations that dominate the industry today may have familiar names – Marriott International, Hilton Hotels Corporation, Intercontinental Hotels Group – but for many, structures and business models look very little like they used to. Ownership of hotels is just one difference, their sizes and focuses are two significant others. The past twenty years has seen a number of companies chase growth and scale, establishing themselves as international giants in the industry. These changes have come about through the expansion of franchising, real-estate investment trusts (REITs), mergers and acquisitions (M&A), and international footprints. The most obvious change is in the size of the companies that dominate the top of the hotel industry. Hotels Magazine publishes an annual list of the top 300 hotel operating firms called the "Corporate 300." Looking at

Figure 2.1.2. Top Ten Hotel Groups, 1998 and 2008

1998	Rooms	Hotels	2008	Rooms	Hotels
Cendant Corporation	499,056	5,566	InterContinental Hotels Group	585,094	3,949
Bass Hotels & Resorts	465,643	2,621	Wyndham Hotels Group	550,576	6,544
Best Western International	300,000	2,800	Marriott International	537,249	2,999
Choice Hotels International	292,289	3,474	Hilton Hotels Corp	502,116	3,000
Marriott International	289,357	1,477	Accor	461,698	3,871
Accor	288,269	2,577	Choice Hotels International	452,027	5,570
Starwood Hotels & Resorts	213,238	653	Best Western International	308,636	4,035
Promus Hotel Corp.	178,802	1,119	Starwood Hotels & Resorts	274,535	897
Hilton Hotels Corp	101,891	255	Carlson Hotels Worldwide	146,600	969
Carlson Hospitality Worldwide	98,404	482	Global Hyatt Corp.	135,001	721
Top 10 Chains Totals	2,726,949	21,024	Top 10 Chains Totals	3,953,532	32,555

Source: Hotels Magazine "HOTELS Giants Survey 2008", "HOTELS Giants Survey 1998"

the list in 1998 and 2008, as shown in Figure 2.1.2., puts the change within the industry into perspective. For many in the top 10, both hotels and room counts have increased significantly. Accor has gone from less than 290,000 rooms in 1998 to 460,000 in 2008 (Hotels, 1999; Gale, 2008; Hotels, 2008). Marriott has seen similar growth during the period. Perhaps the most notable growth has been with Hilton Hotels Corporation. The Corporate 300 shows that they have grown from 100,000 rooms to 500,000 rooms in just 10 years. Further, Hilton has gone essentially from 275 Hilton-branded hotels in 1996 to 3,000 hotels in nine brands in 2007 and now operates in nearly 80 countries (Hilton, 2006; Gale, 2008).

This extraordinary growth at the top end of the market has been made possible through the wide-scale adoption of the franchising business model, in North America especially (Brown & Dev, The Franchisor-Franchisee Relationship: A Key to Franchise Performance, 1997). Figure 2.1.3., also from Hotels Magazine's 325 Survey, shows the top five hotel franchising companies by number of hotels franchised. It is clear that franchising has played a large role in the rapid expansion of companies like Hilton and Marriott, while for both Wyndham Worldwide and Choice Hotels International, it is their business model. The franchise model has also grown hand in hand with the multi-brand business model for major hotel groups, as successful franchising depends on being able to offer consistent brand quality and utilize well-engineered operations standards that promise attractive rates of return (Wang & Altinay, 2008; Higgins, 2006; King, 2004).

The fundamental benefit of franchising however is that it allows firms to specialize in what they do best. In the hotel industry, this means that franchisors provide property owners with not only a brand, but the tools required to consistently deliver the same standards of service that can drive customer

Figure 2.1.3. Franchising Percentage at Top Five Hotel Groups

Company	Hotels Franchised	Total Branded Hotels	Percentage Franchised
Wyndham Worldwide	6,544	6,544	100%
Choice Hotels International	5,570	5,570	100%
InterContinental Hotels Group	3,392	3,949	86%
Hilton Hotels Corporation	2,463	3,000	82%
Marriott International	1,922	2,999	64%

Source: Hotels Magazine "HOTELS Giants Survey 2008"

loyalty and occupancy rates. These tools include strategic direction, marketing and loyalty programs, tools like centralized reservation systems, and importantly, oversight mechanisms to ensure quality (Brown & Dev, The Franchisor-Franchisee Relationship: A Key to Franchise Performance, 1997; Higgins, 2006; Lashley & Morrison, 2000). Franchisees are then free to focus on providing high quality service and customer experiences. By creating a partnership, the idea is that franchisors can provide individual properties access to economies of scale and levels of performance that they would not otherwise be able to if they operated on their own (Brown & Dev, The Franchisor-Franchisee Relationship: A Key to Franchise Performance, 1997).

2.2. The addition of stakeholders

For companies like Wyndham Worldwide and Choice Hotels International, franchising has been at the core of their business model for years. Others, like Hilton, Starwood Hotels Group, and InterContinental, have been transitioning away from ownership to operate strictly as franchisors and managers of hotels. Starwood contends that "the branded global hotel fee business...[is] one of the most attractive business models in the world" (Starwood, 2009). Focusing on managing and franchising hotels changes these companies into a "fee-based business" that provides them with a "more predictable income stream and high cash generation" and greater resiliency in difficult economic times (IHG, 2008). Indeed, Starwood, IHG, and Hilton have all highlighted their move away from ownership and towards a strictly fee-based business model (Hilton, 2006; IHG, 2008; Starwood, 2009; Abrams, 2005).

What this has required however, is an increase in third-party real-estate investment. The rise of hotel-focused real-estate investment trusts (REITs) in the past fifteen years has been one contributing factor – with the aggressive moves by two "paired-share" trusts, Starwood and Patriot/Wyndham, in the mid-90s – helping to drive today's largest hotel corporations to re-evaluate their business models and changing the structure of hotel real estate ownership (Kim, Mattila, & Gu, 2002; Rudnitsky, 1997). Hotel REITs operate by purchasing hotels as an investment property, and then converting that investment into a steady cash-flow by leasing the property out to hotel operators (Reid-Kay & Lau, 2007). Indeed, hotel REITs cannot operate hotels themselves, even if they wished to as regulations governing the structure and operations of REITs effectively prohibit REITs from doing anything that is not real estate related (Tang & Jang, 2008).

Private equity funds have been a second source for funds that have increased institutional ownership in the industry and had been, through 2007, replacing public REITs as a major source of institutional property investment (Walsh, 2009). Before the economic collapse in late 2007, equity funds had been major players in the market, with large amounts of capital from investors like pension funds, available to invest. This capital helped to create markets for property assets that hotel groups were looking to sell in order to become "asset-light" (Sanders & Audi, 2007; Economist, 2009). Being "asset-light" essentially allows large hotel companies to carry less physical assets and associated debt on their balance sheets; it also allows companies that move to management and franchisor models to reduce their exposure to the volatility of business cycles inherent in the lodging industry by replacing traditional revenue streams with long-term management fees and franchise royalties. Selling assets also allows hotel companies to focus on expanding their brands; many companies have used sale and leaseback transactions in the past, and sale and management-back transactions more recently, to tap into existing real estate equity to finance further brand expansion (Waite & Kett, 2004; Wilder, 2001; Whittaker, 2008)

The Blackstone Group has probably been one of the highest profile and active private equity funds in the market in recent years; it has been involved in various purchases of REITs, the purchase and sale of Wyndham, and the highly publicized \$26B privatization of Hilton Hotels Corporation in 2007 (Wei & Hudson, 2008; Tully, 2006). The Hilton deal was notable for more than just its size though – private equity has traditionally been interested in short-term investments in properties that could be quickly upgraded and sold in 2-3 years for a profit (de Haast, 2008) – the Hilton deal underscores Blackstone's commitment to a much longer-term business strategy to be involved in lodging (Sanders & Audi, 2007). Indeed, National Real Estate Investor (NREI, 2008) listed the Blackstone Group as the second largest owner of hotels in the US in 2008. It has also created a significant owner-franchisor-operator entity when most large hotel franchisors have been shedding properties.

Operators represent a third important stakeholder for many hotel properties. With the growth of pure franchising business models, space has been created in the market for firms that provide management and operation services. As Figure 2.2.1. shows, eight of the ten largest management firms are associated with large hotel corporations. Even companies that are pursuing pure franchising models, like Wyndham Worldwide, the self-proclaimed largest lodging franchisor in the world, are also providing management services to upscale branded properties through its subsidiary Wyndham Hotel Management (Wyndham, 2008). For owners that

Figure 2.2.1. Companies that Manage the Most Hotels

Company	Hotels Managed	Hotels
Marriott International	962	2,999
Extended Stay Hotels	686	686
IHG (InterContinental Hotels Group)	539	3,949
Accor	535	3,871
Starwood Hotels & Resorts Worldwide	489	897
Tharaldson Lodging Cos.	372	372
Hilton Hotels Corp.	346	3,000
Interstate Hotels & Resorts	191	191
The Rezidor Hotel Group	176	329
Hyatt Hotels & Resorts	172	721

Source: Hotels Magazine "HOTELS Giants Survey 2008"

choose to sign a management contract with their franchisor, they can expect not just "supervision, expertise, established methods and procedures" but also intimate familiarity with the character of the brand.

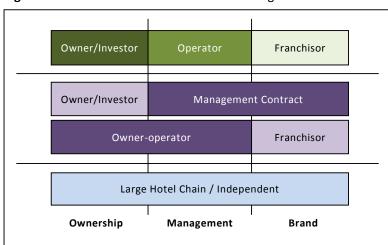
For owners in the past, these branded management contracts that combined a franchise with management support were not only the easiest, but often the best option. This dynamic has changed in the past twenty years, with the increasing sophistication of owners —

spurred on by the influx of institutional and financial investors – creating a class of owners that had both the knowledge and resources to manage a number of partners at a single property (Bader & Lababedi, 2007; Beals & Denton, 2005). Many of these owners may choose instead to contract smaller operators, companies that often have smaller portfolios and are regionally based. The two specialized management companies presented in Figure 2.2.1., Tharaldson Lodging Co. and Interstate Hotels & Resorts, both boast fairly wide geographic coverage. Others focus in a specific region, like Hersha Hospitality Management, which manages hotels in from Boston through Washington D.C. At the same time, many management companies are also associated with real estate investment arms (e.g. Hersha Hospitality Trust) or own and develop properties themselves like Tharaldson does.

The changing landscape of owners also means that large real estate investment funds and property investors often work with multiple franchisors and management companies. The resources necessary to manage these relationships means that management companies themselves have become quite large. In addition, management companies will also often have their own operating procedures and standards for hotels within their portfolio; these can augment or supersede the operating standards imposed by various brands at flagged hotels (Beals & Denton, 2005; Interviewee 6).

The complexity of stakeholders now involved in the hotel industry is partially illustrated in Figure 2.2.2. This simple graphic attempts to illustrate the stakeholder-composition at three different hotels and what roles each of these stakeholders might play in the different situations. As can be seen in green, a diverse structure would involve an owner, operator, and franchisor. The examples in the middle involve owners that sign a managing contract with a branded company, or self-manage with a franchise contract. The final example in blue, shows a self-operating owner – these hotels could be independents, small boutique chains, or flagship properties at large chains.

Figure 2.2.2. Common Hotel Stakeholder Arrangements



Source: Analysis

2.3. Stakeholder impacts on environmental initiatives

The idea of friction between owners and operators or franchisors and franchisees is not a new one. Xiao et. al (2008) provides an informative and wide-reaching literature review that discusses the importance of finding the

right partners in a franchise agreement can overcome the conflicts of interest inherent in franchise agreements. This is a basic description of the issues associated with agency theory, where a partnership creates what Altinay (2006) describes as a "divergence of goals between the agents (franchisees) and the principals (franchisors)."

For researchers studying franchising in the hospitality industry, a primary focus is on how to overcome "franchisee's opportunistic behaviors [that] may include ignoring franchisor's goals in pursuit of their own entrepreneurial interests, refusing to participate in marketing activities, deviating from the franchisor's standards, and/or resisting changes needed to keep the system competitive" in the light of franchisors receiving "revenue-based royalties regardless of the operation's profitability" (Xiao, O'neill, & Wang, 2008). Brown and Dev (1997) showed that strong partnerships between franchisors and franchisees can lead to statistically proven better hotel performance, occupancy, and profit, amongst others. However, the ongoing importance of this issue is reflected by the numerous references in both recent academic literature and industry literature on the need for establishing closer working relationships between owners, operators, and franchisors (Frabotta, 2001; Higgins, 2006; Wang & Altinay, 2008).

While these studies all deal with franchisor-franchisee relationships, it's clear from the study of management contracts in the lodging industry that agency theory is also at play. James Eyster (1998) provided one of the earliest studies of how management contracts were changing to give owners greater guarantees that operators did not have an unfair advantage in terms of contracts. Sangree and Hathaway (1996) followed this study up with one that showed new management contracts were providing owners with greater flexibility in ensuring that operators performed at optimal levels through more incentive fees.

However, it is also clear that friction from "conflicts and misalignment of interests between owners and operators" remains at all levels of the owner-operator-franchisor relationship, despite, or perhaps because of, closer interaction between all parties; most notably, owners are highly unlikely to trust that "operator[s] will spend the owner's money in the wisest, most prudent manner" (Beals & Denton, 2005; Nozar, 1996). Tellingly, Beals and Denton (2005) believe that branded management companies will begin to focus on either brand or management in order to lessen these frictions internally; even with this change however, the multi-stakeholder friction within individual properties will likely remain.

In terms of the environmental responsibility, these dynamics are likely to influence the ways in which stakeholders at individual hotels evaluate initiatives. Unfortunately, whether justified or not, stakeholders — especially stakeholders with less collaborative relationships — may view proposed environmental initiatives that are supposed to increase profits with some measure of skepticism. It is not hard to imagine conservation measures, marketing plans, or customer awareness programs pushed by a hotel brand being viewed with distrust by owners or operators. Likewise, there may be cases where operators might push for a conservation measure that a franchisor views as not in line with their brand standards or their own brand goals. Indeed, even at properties where owner, operator, and brand are all from the same company, it can be difficult to implement an environmental program. For example, a flagship property for a major hotel chain in San Francisco (owned and operated by the corporation), after conducting research that showed many guests did not read the papers placed in their rooms, attempted to implement a voluntary guest newspaper system to reduce waste (Interviewee 5). The plan, although successful and seemingly innocuous to guest experiences, was nonetheless discontinued at the request of the brand — likely due a combination of complaints received at the corporate level and difficulty in implementing such a program brand-wide.

Further, many of today's environmental programs are aimed at generating operational efficiencies; as such, they often require capital investments. Whittaker (2008) documents how owners and operators often differ on how to maximize the value of property assets, with operators in their study stating that "they preferred passive to active landlords" that would not be involved in as many operational decisions. Yet, the trend is towards more active ownership. Increasingly sophisticated institutional investors and real estate investment firms have created a group of owners that wants to be involved in major property decisions. This has contributed to what Chris Guilding (2003) describes as an "idiosyncratic ownership/management structure...[where] two distinct organizations are frequently involved in hotel investment decision making processes."

While there is evidence that owners, like Host Hotels and Resorts and FelCor, are now increasingly pushing their own green programs or receptive to initiatives (Interviewee 2, Interviewee 3), the fact remains that operators often have little discretion when it comes to capital expenditures. Two hotels interviewed for this study shared that most capital expenditures above \$5000 had to go to the ownership group for approval. They also stated that at their properties, management frequently utilized discretionary operational funds to implement smaller, less capital intensive eco-initiatives in the course of normal replacements – compact fluorescent lighting (CFL) was one such example.

Franchisors, especially, have made efforts to address the concerns of owners by creating ownership groups. Stacey Higgins (2006) reports that many franchisors, including Starwood and IHG, have owner's groups or councils that meet regularly to discuss and debate issues brand issues relevant to owners. Brand standards, essentially a checklist of requirements necessary for a property to fulfill in order to fly a brand's flag, is one of the issues often discussed in these groups. Brand standards, although seemingly a perfect vehicle for the adoption of environmental initiatives across a brand, does present significant challenges.

Wary of potentially antagonizing owners, franchisors are hesitant to adopt standards that might be too difficult or require too much capital investment. The stakeholder dynamics discussed above means that franchisors may have to market and "sell" any proposed environmental standards, an effort that has to be weighed against potential benefits of those standards to the brand. While certainly not an insurmountable roadblock, the owner-operator-franchisor relationship certainly presents obstacles to adoption of environmental initiatives. Even when brand-wide initiatives are launched, brands often find them easier to implement at hotels where they have management contracts in place. Indeed, hotels with branded management contracts are often where franchisors go to pilot new programs like Marriott's in-room recycling, or IHG's new sustainability IT platform Green Engage.

Thus, potential environmental initiatives at the property level must run a gauntlet of shareholders before being implemented. Evidence from interviews conducted for this story suggest that fewer shareholders – e.g. owner-operators or operator-franchisors – may simplify the decision making process. Yet as has been shown above, even hotels with a single corporate stakeholder are not guaranteed to be able to implement initiatives at the property level – the prospects for initiatives being supported by multiple stakeholders with often inherent conflicts of interest have historically been, understandably, lower.

3. The Hotel Industry at the Brand Level

3.1. The growth of segmentation practices

At its core, segmentation is the process of breaking up a "heterogeneous market (which has a variety of wants and needs) into homogeneous segments (each of which has similar needs)" (Gershon, 2003), or as Moskowitz and Krieger (2003) point out, that "the consumer public does not comprise one homogeneous group, but rather consists of groups of assumed like-minded individuals." The importance of segmentation to the hotel industry is clear; the variety in types of travelers and their desired experiences, services, amenities, price points – the list goes on – is large.

Single hotels hoping to cater to the entire market no longer exist – if they ever did. The market for lodging could likely always be broken into rough segments, by socio-economic class if nothing else. The existence of luxury hotels even a century ago attests to this. The segmentation has gotten progressively more detailed, although even as recently as 1980, researchers and industry observers broke the market into only four major economic segments – upper, upper-middle, middle, and lower (Mooney & Penn, 1985). This broad segmentation of the industry, although convenient, has proven less useful in the ensuing years as major markets, like the US and Europe, have matured. As with any mature markets, the hotel industry is characterized by increased competition, slowing growth, greater emphasis on cost and service, and a renewed focus on differentiation and market share (Porter, 1980).

In light of these conditions, different attempts to segment the market have arisen in the industry. Hotels have decided to market differently to different segments under the belief that they will be reward with greater total profits (D'Souza & Weun, 1997). Mooney and Penn (1985) explored the idea of creating levels of experience within single hotels, discussing the rise of "club levels" in hotels that mimicked the concept of seat classes (first, business, and economy) in the airline industry. Statistical analysis and more in-depth understanding of customer needs have allowed hotels to develop products for specific market segments, creating a situation where "the consumer guide[s] the development of new products" (Moskowitz & Krieger, 2003).

Perhaps the most telling example of this is the story of the development of the "Courtyard by Marriott" brand of hotels. Jerry Wind and Paul Green, two researches from the Wharton School at the University of Pennsylvania, were hired by Marriott in the early 1980s to conduct a study of hotel customers and their desires for a potential new hotel brand. The two conducted a survey of travelers and then used conjoint analysis, simulations, and other techniques to determine the characteristics that respondents desired in their ideal hotel. The result was the Courtyard by Marriott brand, positioned as "a special little hotel at a very comfortable price" (Wind, Green, Shifflet, & Scarbrough, 1989). Marriott then chose a number of attributes for the new hotel from the lists prepared by the research team and created the hotel chain.

Despite the progress that has been made in identifying more focused market segments though, some researchers believe that much remains to be done. Schultz (1994) pointed out the difference between segmenting products and segmenting markets, stating that "the industry has done a good job of product segmentation, [but] it now must address market segmentation...directing a laser-like focus on high-potential guests for individual property types." Sara Dolnicar (2004) published a literature review in which she remarked, "the competitive advantage that can be gained from thorough market structure analysis is not fully exploited at present," and advocated for hybrid segmentation strategies that combine "commonsense" or a priori segmentation with "data driven" or a posteriori techniques. Thus, although the hotel industry today is more highly segmented and targeted than it has ever been, the case can still be made that hotel groups still have a ways to go in order to maximize profit of individual customers and customer segments. Finding these segments and generating greater value from them has been the driving factor behind the segmentation of the industry.

3.2. Technology's contribution to segmentation

One major development that has contributed to the hotel industry's ability to segment markets at an increasingly granular level is the penetration of information technology into not only the hospitality industry, but also into fields like marketing and business strategy. The importance of information technology systems, electronic reservation systems, and loyalty programs in the 1990s is clear (Francese & Renaghan, 1991). Managing these systems properly not only created more opportunities for increased profit margins, it was (and still is) a requirement for operating in the industry and a source of more "touchpoints" to hotel customers (Wolff & O'Toole, Directing the future of hotel traffic, 2002). Technology has allowed hotels to gather greater amounts of information about their customers, and through mining of this information, offer more tailored services and targeted products better suited to the expectations of different customer segments.

As early as 1991, Chekitan Dev and Bernard Ellis (1991) discussed the possibilities for service improvements through storing, analyzing, and acting on better customer behaviors and preference data. They identified this as a significant potential source of competitive advantage in hospitality. Dev and Ellis envisioned a model where hotel customers and their preferences are tracked so that on their next visit they are greeted with rooms that are adjusted to their liking upon arrival and outside services like entertainment or restaurant reservations are already taken care of.

Similarly, Connolly and Olsen, in 2000, stated that "knowledge, knowledge, knowledge" would replace "location, location" as the three most important sources of competitive advantage. They suggested that hotels needed to not only develop intensive customer profile data storage systems, but also to intelligently mine that data to "create personalized, unique customer experiences" (Connolly & Olsen, 2001). Connolly and Olsen go

on to describe the new generation of hoteliers as "packagers of experiences, products and services," that help integrate multiple service providers into a seamless experience for each customer.

While it would be misleading to say that these visions have come true, the trend towards utilizing more granular data to target and address the specific needs of customers is indeed occurring. Beyond storing and implementing customer-stated preferences, companies are now also mining, analyzing, and modeling consumer purchasing and behavior patterns (Bowen, 1998). They have graduated from using simple demographics to using more detailed variables to segment their markets. Segmentation of markets is often conducted through a combination of characteristics including socio-demographics, behavioral patterns, and travel purpose and goals, or desired benefits (Dolnicar, Management learning exercise and trainer's note for market segmentation in tourism, 2007; Chung, Oh, Kim, & Han, 2004). As computer power and database technology advances, more advanced segmentation will also become more feasible, allowing even more sophisticated market segmentation and branding.

For now, researchers and companies alike are utilizing the latest computing power and technologies to analyze customer data in order to determine a corporation's best marketing strategies or targeting of customers. For example, studies have proven that socio-demographic variables do affect aggregate demand for lodging in the US (Palakurthi & Parks, 2000), while others have shown that proper identification of demographics-driven clusters of hotel customers has a potential to drive both marketing strategies at existing hotels as well as new resort or service creation (Inbakaran & Jackson, 2005). Other studies demonstrate the applicability of statistical analysis and advanced computing techniques like "self-organizing maps" to better identify market segments and enable positional analysis for hotels (Chung, Oh, Kim, & Han, 2004; Mazanec, 1995).

3.3. Segmenting environmentally conscious customers

As Laroche et. al (2001) highlights in a comprehensive literature review of green consumer research, most studies have focused on identifying which consumers are most likely to be green, what influences their decisions, and what attributes and beliefs are correlated with a greater penchant for environmentally-based purchase decision making. Yet, research also shows that a notable lack of effort has been placed on identifying environment-friendly tourists (EFTs) within the general tourist population; many studies attempt to profile and understand EFTs by surveying already identified eco-tourists, and moreover, the understanding of these EFTs is still fairly shallow (Dolnicar, Crouch, & Long, 2008).

Likewise, an understanding of how these target customers would behave, especially in relation to purchasing behavior, is also not well understood. General research on green consumers has attempted to identify their price elasticity and understand their decision making processes. While some studies show that environmentally friendly products can command a price premium (Kapelianis & Strachan, 1996; Speer, 1997) others show that no price premium exists and that any conclusion on the issue is "inconsistent and inconclusive" (Manaktola & Jauhari, 2007).

What is clear in the lodging industry however, is that both researchers and corporations have been attempting to understand not only if customers are willing to pay more for a "greener" product, but also how to best target this group of customers if they exist. Surveys of frequent travelers have shown in the past that many customers are in favor of hotels implementing more environmentally friendly strategies including energy conservation measures, recycling programs, and use of recycled paper (Watkins, Do guests want green hotels?, 1994). The U.S. Travel Data Center asserted in 1995 that there were 43 million "eco-conscious" travelers (Glanzrock, 1995), while more recently Jonathan Barsky (2008) shared that the latest Market Metrix Hospitality Index showed that 20% of luxury hotel guests and 12% of guests across segments viewed "green initiatives" as "very important."

Other studies attempt to determine how many "environmentally conscious" consumers would actually pay more to stay with a more responsible brand or property. Manaktola and Jauhari's study (2007), although limited to a relatively small sample of consumers in India, indicates that consumers with positive attitudes towards environmentally responsible lodging are still unlikely to be willing to pay for environmental initiatives. According to a Travel Industry Association study released in 2007, "only 14 percent of respondents said their actual

selection of a travel service supplier would be influenced by that supplier's efforts to preserve and protect the environment." Further, only 13 percent of respondents to this survey said they "would be willing to pay higher rates or fares to use suppliers who demonstrate environmental responsibility (although 52 percent said they might)" (Yesawich, 2007).

Despite questions surrounding how much of a premium hotels can expect for being environmentally responsible, the fact is that a market does exist. Hotel companies have largely viewed these market characteristics as an opportunity to increase profits through intelligent segmentation of their customer base, providing those willing to pay more with a more environmentally friendly product. Glanzrock (1995) notes that for hotels that are unable to green their whole property, they can still lure guests with a "green room strategy" where certain rooms are upgraded to better environmental and health standards and then charge guests a premium. Both Yesawich (2007) and Barsky (2009) consider a hotel's ability to appeal to guests and attract additional customers as a primary reason to "go green."

Thus, environmental initiatives within the industry in the past thirty years have tended to focus more on creating eco-hotels, implementing environmental initiatives at eco-tourism destination resorts, and singular, opt-in programs like towel-reuse or carbon offsetting (Enz & Siguaw, 1999; E&Y, 2008; Naditz, 2008; Ayala, 1995; Starwood, 2009; Winer, 2008; Rushmore, 1993). These approaches all share a common thread – that of targeting specific customers whose purchasing decisions may be influenced by their environmental sensitivity. The reverse has also been true – for customer segments that do not care about environmental responsibility at all, hotels have largely avoided investing in eco-initiatives and risking a change to the customer experience. Much of the industry has effectively treated "environmentally responsible" as a new segment of customers. In doing so, they have applied segmentation thinking to their own environmental initiatives and responsibility. Decisions on specific eco-initiatives, especially those that are customer-facing, are evaluated against "what the customer is willing to accept" (Interviewee 4).

At smaller hotels and resort destinations, this focus on customer segments has no doubt helped drive adoption of eco-initiatives. Depending on their customer base and the type of experiences expected by customers, some hotels have chosen to become very eco-friendly, catering to this specific segment in hopes of luring a greater number eco-conscious tourists. Large chains however, with their multiple market segments and brands, have attempted to understand what their customers want and here, environmental responsibility is one of a number of different customer needs. When evaluated relative to other, potentially higher revenue-generating, investments can often fall towards the bottom of the priority list (Interviewee 5).

The trend towards more detailed market segmentation combined with more powerful technological tools to analyze data has in fact contributed to the slower uptake of broad-based environmental initiatives. Mary Zimmer et. al (1994) states that "to say that there is 'an environmentally concerned market segment' available for marketers to serve with products, services, and information...is no longer enough. With the growing number of companies entering the green market, marketing strategies such as segmentation and positioning need to be used." Studies like this one, while providing for a deeper understanding of decision-making processes of environmentally-conscious consumers, nonetheless reinforces the notion that eco-initiatives are best pursued only when they are properly targeted to specific customers.

Given limited resources and managerial band-with, many large hotel chains have chosen to pursue only the lowest of the low-hanging eco-efficency fruit or those investments that are guaranteed to produce top-line revenue growth. Many studies exist that examine the factors that go into consumer choice of hotels (Yavas & Babakus, 2005); with increased competitiveness, this focus on decision-making criteria is understandable, yet for many hotels, it also means that a property's environmental profile is also relegated to one of many variables. As long as the eco-conscious market segment does not reach critical mass, and eco-conscious portions of a hotels existing customer base do not grow or are difficult to target, hotels are de-incentivized to take a leadership role in environmental responsibility.

4. The Hotel Industry at the Corporate Level

4.1. The branded business model

The focus on market segmentation in the hotel industry has been one of the main reasons for the proliferation of hotel brands in the past three decades. Olsen et. al (2005) describes it as the "dominant industry strategy" for growth; that is, hotel operators have created ever-more targeted hotel brands to address the needs of narrower customer segments based on increasingly granular data. Brands are fine-tuned so they can be marketed to more specific groups and better stand out in saturated markets (Rowe, 1996) while large franchisors consistently reevaluate their branding strategies to ensure differentiation.

Today, major franchisors play a large role in the hotel industry, and most of the major players are multi-branded, pursuing a full-market coverage targeting strategy through their mix of brands and products. Although some have notable holes in their brand portfolio, they are at least pursuing a differentiated marketing strategy by offering different brands for different segments. For example, Choice Hotels already offers ten different brands, yet has still expressed a desire to "add an upscale flag to the company's current lineup of mostly midscale and lower brands" (Watkins, 2009). Others, like Carlson Hotels, attempt to span the market from lower-end to luxury with their portfolio but feature brands that span multiple segments and are not as clearly defined.

The top five hotel groups (as ranked by number of rooms) are all extremely large and operate with a full-market coverage segmentation targeting strategy (MKG, 2008). As can be seen in Figure 4.1.1., none of the groups in the top five has less than seven major brands. Marriott International offers twelve distinct "hotel" brands; six more can be included in their portfolio if the definition were widened to include related product types like executive apartments and timeshares.

Figure 4.1.1. Brand Portfolio at Top Five Hotel Groups

Rank	Group	Total Rooms	Hotels	Brands	Largest brands (by # of rooms)
1	Intercontinental Hotels Group	585,094	3,949	7	Holiday Inn, Holiday Inn Express
2	Wyndham Worldwide	550,576	6,544	11	Days Inn, Super 8
3	Marriott International	517,909	2,901	12*	Marriott, Courtyard by Marriott
4	Hilton Hotels	497,365	2,959	9	Hilton, Hampton Inn
5	Accor	459,494	3,857	11*	Motel 6, Mecure

*Marriott highlights 18 brands in their annual report which include timeshare, vacation, and long-term executive apartments also - 12 brands can be considered in the "hotel" industry; Accor also has a number of sub-brands and regional brands totaling at least 16 Source: Annual reports and filings, company websites, MKG 2008

The rise in prevalence and ubiquity of extremely segment specific brands can be illustrated through the example of the "extended stay hotel." The concept, usually featuring apartment-like rooms complete with kitchen designed for extended stays of a week or more, was first popularized by the Residence Inn, based in Witchita, Kansas in the mid-1970s (Dela Cruz, 2008). By the late 1980s, Marriott International had purchased the Residence Inn brand, effectively "proving" the concept. More extended stay brands were launched in the 1990s, many in response to the success of the "Extended Stay America" brand which was launched in 1995. Mirroring the development in the traditional hotel market, franchisors and operators rushed to fill gaps in the extended-stay market up and down the price-point spectrum (Sheridan, 1996). The extended-stay segment is still growing today – both Hilton and Starwood have recently announced new extend-stay brands – even with conservative estimates placing the number of extended-stay brands at more than two dozen (Dela Cruz, 2008).

It is instructive to examine how major hotel groups are positioning their own product offerings. It is fair to say that five segments are fairly universal – luxury, upscale, midscale, economy, and extended stay – with many also including a budget category. Some industry reports and articles utilize an even more detailed breakdown that includes categories like "upper-upscale" and "lower-midscale" that slide in between luxury and upscale and midscale and economy respectively. Furthermore, with many hotel groups offering multiple nameplates within each segment, it's clear that the companies themselves believe there are many sub-segments to address.

Different definitions aside, many of the major international players offer a brand (or two) for every guest. Marriott International states, "with 18 brands spanning multiple segments, Marriott International offers something for everyone. Are you traveling for business or pleasure? Staying for just one night or for an extended stay? Looking for a convention hotel or more of a boutique experience? Whatever it is, our more than 3,100 lodging properties in 66 countries and territories are ready to welcome you" (Marriott International, 2008). Accor pursues a similar strategy, as can be seen in Figure 4.1.2., which highlights the specific marketing messages the company uses to position each brand.

Figure 4.1.2. Brands and Brand Positioning at Accor

Brand	Hotels	Major Segment	Positioning
Sofitel	149	Luxury	"French-style luxury"
Pullman	30	Upscale	"Customized solutions for business travelers"
Novotel	393	Midscale	"Resolutely contemporary hotels"
Mecure	690	Midscale	"A Mecure for every traveler"
Suitehotel	23	Midscale	"An oasis for today's nomads"
Ibis	814	Economy	"The leader in the European economy segment"
All Seasons	49	Economy	"Hotels that have 'all you need'
Etap	388	Budget	"Hotels for everyone"
Formule 1/ hotelF1	365	Budget	"The benchmark in low-cost hotels"
Motel 6	951	Budget	"Affordable and friendly"
Studio 6	52	Extended-stay budget	"Long-stay hotels"
Adagio City Aparthotel	22	Extended-stay midscale	"A new network of urban residences"

Hotel figures from December 31, 2008, brand positioning from 2007

Sources: Accor 2008 Registration Document, Accor 2007 Annual Report

As can be seen, Accor offers a multiple brands in most segments, each with a different positioning strategy. Instead of cannibalizing sales, these brands instead complement each other, some offering a suite experience, some geared towards traditional transient customers, and others designed for extended-stay. Accor has continued to augment and change its brands. Two major new brands – All Seasons and Pullman – were introduced in 2007, while the company repositioned Sofitel in the luxury segment and added two Sofitel subbrands to the portfolio (Accor, 2007; Accor, 2008).

4.2. The growth of multi-brand portfolios

Many hotel operators and franchisors are continuing to add brands to their portfolio. Major hotel groups, like Hilton, Marriott, and Starwood have launched new brand concepts in the past three years that feature different hooks. Hilton and Marriott are each addressing the "lifestyle boutique" segment with new offerings. Hilton unveiled the "Denizen" brand in early 2009, while Marriott's new "Edition" brand attempts to marry Ian Schrager concepts – famous for creating the boutique hotel concept – with Marriott operational expertise. Starwood offers "Element," a new extended-stay hotel that includes an emphasis on green and healthy living. Hilton has also been active at the other end of the spectrum, extending their "Homewood Suites" brand with an extended stay offshoot "Home2 Suites" aimed at "young travelers seeking a budget extended-stay option" (Yu, 2009).

As noted above, "lifestyle" brands have seen rapid growth and development within the lodging industry in recent years. These hotels are positioned to offer guests lodging that reflect a customer's "life through products and the items they consume" and that combine fun with functionality and "bank on originality to appeal to guests comfortable blending business and leisure, work and play" (Wolff, 2008; Haussman, 2006). Though not yet rigidly defined – the segment includes hotels that could be considered luxury, boutique, and mid-scale extended stay, amongst others – brands in the segment do share a desire to target "younger, affluent travelers" who are looking for properties that are unique, original, and well-designed (Stodghill, 2007). In addition to the Edition, Denizen, and Element brands discussed above, newer brands like Starwood's aloft, Choice Hotels' Cambria Suites, Hyatt's Hyatt Place, and Intercontinental's Hotel Indigo are all recent additions to this segment.

This activity, in addition to the on-going additions in other segments – notably extended-stay, reflects a continued emphasis by hotel groups, investors, and owners to differentiate their properties, attract customers, and grab market share through more focused segmentation and branding. Further, as the potential opportunity to capitalize on existing brand equity by extending mainline brands shows, strategic brand management can be a boon to companies (Jiang, Dev, & Rao, 2002). The logic is simple – chains claim that brand identification and loyalty can lead to greater RevPAR (revenue per available room) and occupancy rates (Olsen, Chung, Graf, Lee, & Madanoglu, 2005). Or, as a report from Deloitte (2009) states, "building brand value is more important than ever....the ability of a hotel...to crisply define and consistently deliver on a distinct brand promise can help to increase demand and build customer loyalty."

The benefits of having strong brands are important for both hotel operators and for franchisors. From an operator's standpoint, not only does a strong brand promise to help boost RevPAR and occupancy as mentioned above, it also gives them a chance to distinguish their properties in increasingly crowded markets. Greater and greater numbers of hotels compete in smaller geographical areas (Rowe, 1996), one of the dynamics that has helped give rise to boutiques and lifestyle brands which promise guests a more unique and individual experience. Brands offer owners access to specific market segments, often segments that hotel groups promise owners are underserved in their location. Further, with large franchisors or hotel groups, these distinct brands come with global purchasing, reservation, and other operational systems that owners can leverage – key factors in potentially increasing customer reservations and reducing costs. An added benefit with a newly launched brand in a group portfolio is that owners can expect support from franchisors with brand marketing – a benefit they might not get with established brands.

From the standpoint of hotel groups, this multi-brand strategy provides them with opportunities for expansion and profits. Large hotel groups, in North America especially, have relied on a franchising and management model for growth; franchising is important for industries "whose products cannot be exported (such as services)," (Altinay, The internationalization of hospitality firms: factors influencing a franchise decision-making process, 2007) and has become a primary driver of growth both in North America and, increasingly internationally. However, many of the established brands already have properties in their most desired markets (King, 2004). Since "competent franchisers...don't pit same-brand hotels against each other" (Stribling, 2006), having a large stable of brands provides franchisors with an opportunity to place more properties in the same areas while not cannibalizing existing business. At the same time, franchisors can better compete against other hotel groups for valuable long-term contracts with investors and developers by promising brands that are more targeted at specific market segments. An added benefit for hotel groups is the potential to tap into existing vendor networks and exercise the purchasing power that having multiple hotels in the same area offers, thereby saving on both start-up and operating costs.

An offshoot of the multi-brand model that benefits both owners and franchisors is the rise of the brand-spanning group-wide loyalty program. With both accrual and redemption possible across all brands, loyalty programs can help drive customers to properties throughout the portfolio. For instance, a frequent guest at an economy hotel like Fairfield Inn can utilize loyalty points to experience the "Ritz," potentially creating a new customer. Similarly, a business traveler that attends many conferences at the Crowne Plaza, could eventually utilize points to take his family on an extended vacation and stay at the Holiday Inn. Hotel groups have recognized that travelers are not simple two-dimensional customers with only one need; instead travelers have different needs at different times, and hotel groups want to offer a product for whatever need that customer might have (Stodghill, 2007).

4.3. Brand positioning

The benefits of the multi-brand business model are clear for owners, developers, and franchisors. Yet, the fact that major hotel groups offer a multitude of brands – 13 or more in the case of Marriott International – raises a real concern that brands are not differentiated enough to speak to consumers – a concern that has be voiced by industry observers in the past (Rowe, 1996; Sheridan, 1996). Olsen et. al (2005) contest that all but the most experienced travelers are not able to differentiate between brands that have historically attempted to create niches through price and level of service parameters. In fact, even professionals within the industry have

difficulty differentiating between brands, and in recent years, hotel homogeneity has confused even the frontline managers of hotels. "General managers from ITT Sheraton in Asia were shown pictures of hotel rooms from their own chain and three competitors. Most managers could not identify the brand of one roomnot even their own-although they were given a list of eight brands from which to choose" (Bowen & Shoemaker, 2003).

Indeed, the danger of offering a commoditized product within hotels is large even for hotels competing in the luxury segment. As Christopher Norton, General Manager of the Four Seasons George V in Paris, states, "Your design must please and your facility must compete. But if you cannot separate your luxury hotel product offering from the fatal irony of becoming a commodity, you will quickly vanish..." (Norton, 2008) Even within the luxury segment – with sub-segments of lifestyle and boutique hotels that are themselves reactions to the general commoditization of the hotel industry – attention must be paid to ensuring differentiation and proper addressing of specific target customers.

At its most basic, a brand "conveys a specific set of features, benefits, and services" (Kotler, Armstrong, Saunders, & Wong, 1999) that should help consumers decide between products and services in a crowded marketplace. At its most complex however, "a brand embodies all that the business stands for...[it] is the hallmark of quality, a promise or an assurance to the buyer, a set of associations or expectations...that triggers a propensity on the part of customers to purchase that brand's products" (Prasad & Dev, 2000). Service industries have traditionally been hindered in brand development, due largely to difficulties in consistently satisfying difficult brand promises across different geographies (Palmer, 2000; Bowie & Buttle, 2004). However, as the marketplace today shows today, with hundreds of brands competing for travelers, companies believe that a clearly defined, positioned, and well-executed brand strategy can be lure customers and help keep them loyal. One characteristic of the multi-brand strategy that most of the top hotel groups are utilizing today is that brands have to be properly positioned both within the marketplace and within the company's portfolio. Marketing professionals will often use a "positioning map" to visually show how brands are positioned in the marketplace (Wright, 1999). These maps will plot brands against a number of variables that consumers might use to evaluate a brand, and can help marketers better understand their competition and how to address their target customer segments (Bennett & Strydom, 2001).

Figure 4.3.1. is an example of a hotel positioning map using a few example hotel brands from the top three largest hotel groups – Intercontinental Hotels Group, Wyndham Worldwide, and Marriott International. While professional positioning maps are often based on detailed customer survey and hotel data and analyzed using advanced statistical techniques (Dev, Morgan, & Shoemaker, 1995; Prasad & Dev, 2000), this particular map, being illustrative in purpose is based on industry research, company reports and marketing statements, and basic surveys of things like price and service quality.

Parameter choice determines how brands are located on a map and in relation to each other. For this map, price was chosen for the vertical axis, as both a proxy for the customers targeted as well as the service quality typical of a brand. "Experience" was chosen for the horizontal axis, as a way to distinguish hotel brands through a combination of hotel purpose (e.g. conference versus vacation), hotel amenities, and hotel design or personality. Simple and affordable hotels geared towards business travelers would be highly "functional" for instance, while designer boutique hotels would have lots of "personality."

A few observations can be made from this positioning map. For one, there is a strong correlation between price and experience. This is easy to understand – typically hotels that emphasize highly original experiences cost a lot of money to create and thus charge higher prices. Second, the hotels included here bunch together in fairly recognizable clusters. Highly functional, low cost hotels tend to cater to lower-budget business and leisure travelers, while the Marriott-Wyndham-Crowne Plaza cluster represents more of the conference, business executive market. Although only the Ritz-Carlton is included in the map, many luxury hotels (like the Four Seasons, Fairmont, or St. Regis) would be located in a similar space. Finally, many of the brand extensions and new brand launches have traditionally filled in market segment gaps along this price/experience line, but newer launches are beginning to target areas that can be considered new market segments. The lifestyle segment,

traditionally represented on the map by high-priced, boutique hotels like Hotel Indigo, is expanding. SpringHill Suites is an example of the newer, more economically-priced lifestyle choices; aloft from Starwood and andaz from Hyatt are not shown, but could also be included in this cluster.

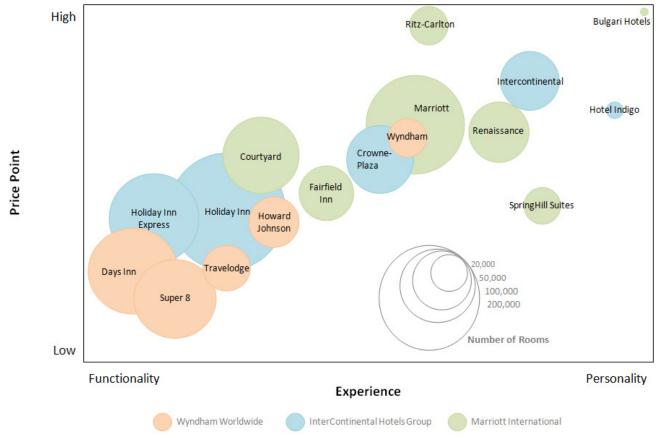


Figure 4.3.1. Brand positioning for select Wyndham, IHG, and Marriott Brands

Source: Analysis, Company annual reports, Hotels Magazine "HOTELS Giants Survey 2008"

4.4. Environmental initiatives across brands

The major hotel chains are almost all operating with a multi-brand strategy, offering brands targeted at specific target segments. Brands from the same company may have overlapping markets, but are designed to address different core customer bases. While there has been debate about the necessity or effectiveness of having so many brands, the popularity of this business model, combined with the accepted industry wisdom that well-defined brands generate greater value, makes clear that hotel groups, owners, and developers all believe in the model (Olsen, Chung, Graf, Lee, & Madanoglu, 2005; Eilerson & de Vaal, 2009).

From an operational and marketing standpoint, the core customer base determines the type of "customer experience" each hotel brand strives to provide and promote. The resort conference-goer will undoubtedly demand a different lodging experience than a family on a road-trip vacation. The services, amenities, and physical infrastructure of hotels are usually tailored to meet the expectations of target market segments, and thus will often vary radically from brand to brand.

The way in which different hotel brands deal with environmental responsibility initiatives likewise differ greatly from brand to brand. "Customer experience" is paramount in the hotel business; any environmental initiatives, including eco-efficiency ones, which are implemented in hotels must ensure that the customer experience does not change. "Customer experience" has been cited as an obstacle to conservation measures as varied as low-flow shower-heads, in-room recycling, CFL and energy efficient lighting, and linen and towel reuse programs

(Interviewee 1; Interviewee 4; Taylor, 2009). Further, hotel management does not have much opportunity to "bring guests on board" with environmental initiatives, making it harder to implement anything that significantly changes the guest experience or modifies expectations (Interviewee 3).

The problem for large hotel chains is that the multi-brand strategy implies not only different customer bases for each brand, but also different expectations and levels of acceptance of environmental initiatives. The proliferation of brands at the largest hotel companies creates a logistical and strategic dilemma when it comes to the implementation of corporate-wide environmental initiatives. Based on the multi-brand model, and given different cost and pricing structures, Wyndham Worldwide cannot expect that Super 8 properties will implement the same initiatives as a Wyndham branded hotel. Moreover, from the standpoint of certain brands – for instance Super 8 – the case for implementing a general environmental strategy involving capital investments is less clear. At the other end of the spectrum, a luxury hotelier may be concerned with making changes that impact the decadent lifestyle that are the basis for the luxury industry.

Large hotel corporations are faced with the difficult task of developing a company-wide policy that can be communicated and marketed to customers but that is also applicable and actionable at each brand. If initiatives are too one-size fits all, individual brands may oppose them as they themselves see their properties and customers as unique – perhaps rightfully so. The Ritz-Carlton for example, conducted its own research into guest expectations of environmental initiatives separately from mother-company Marriott's efforts in the area (Interviewee 7).

What corporations are left with is creating what are often a set of generalized environmental targets or goals (like those recently announced by Marriott International or Hilton Hotels) which are voluntary or intentionally low to ensure that all hotels can achieve them, or are measured in aggregate across the company to account for hotels that cannot reach them. For instance, as part of Marriott International's new environmental policies, they have committed to reducing energy and waste levels at their properties by 25% within a decade, worldwide. Yet the same program boasted that they intended to pilot in-rooms recycling programs at 10 properties and installing solar power at "up to 40 hotels" by 2017. These programs are opt-in, and reflect how corporate-wide initiatives place the pressure to reach targets squarely on individual properties. With limited management bandwith, competition for financial resources, and unique infrastructure at the property level, uptake is slow and can have a dimension of "reinventing the wheel."

The generalized environmental programs that large multi-brand hotel corporations must pursue, while leaving room for individual brands and properties to tailor their environmental initiatives to their own situations, are one of the major contributing factors in the slow adoption of environmental initiatives at hotel properties. The issue is a structural one as much as anything else; the multi-brand model, based on different market segments, guest expectations, and positioning messages also extends to environmental responsibility – it is difficult to craft a single corporate wide program that is effective at all brands in the portfolio.

5. The Hotel Industry at the Industry Level

5.1. Industry economics and performance metrics

The hotel industry is one characterized by capital intensive assets that require high levels of initial investment and periodic ongoing capital infusions for renovations and upgrades. Collier and Gregory (1995) describe lodging companies as "capital intensive businesses where the assets are long-lived and not subject to obsolescence, provided they are adequately maintained." Thus, the hotel industry is one where sunk costs are fairly high, but ongoing fixed and operating costs are less so.

It should come as no surprise then that the primary measures for performance in the industry revolve around maximizing revenue generation given these characteristics; in other words, since the beds are already there, the industry has to focus on filling as many of them as possible. Occupancy rates, average daily rates (ADR),

revenue per available room (RevPAR), and net operating income (NOI) are the most common financial performance metrics used in the industry. Industry analysts and researchers all rely on these three measures as way to gauge not just the health and efficiency of a particular hotel but also of the industry as a whole. As an example, PKF Consulting releases an annual "Trends" publication that includes industry average figures for hotel segments, geographies, and any other number of ways of cutting the data for use by industry professionals to measure their own performance by.

NOI, is the measure of a company's earnings before interest and taxes (EBIT) and as such measures the general profitability of a firm, taking into accounts both revenues and operating costs. Of the measures mentioned above, NOI is the only one that will reflect changes in a firms cost structure. In other words, it is the main measure of a hotel's bottom line. The other measures mentioned above – occupancy, ADR, and RevPAR – are all figures that affect revenue generation, or the top line.

It is useful to take a closer look these top line figures and the importance that they have within the industry. Given the physical infrastructure required for hotel operations, occupancy is understandably an important measure of hotel health. The logic is simple – maximizing capacity is important for hotels just as it is for airlines or trains. In other words, every empty room in a hotel is essentially a loss. Operating costs (like labor) are generally flat – hotels can adjust their staffing slightly to different conditions somewhat like a retail outlet, but to remain in operation hotels must have a basic level of staff and related costs. Some hotels, especially those that are extremely seasonal, will completely shut-down operations during the off-season since the revenue from the lower number of guests will not cover their costs (Slattery, Reported RevPAR: unreliable measures, flawed interpretations and the remedy, 2002).

Although occupancy rates vary by hotel type, hotel costs, customer mix, and location, the threshold of high occupancy rates is surprisingly low. Data from PKF placed hotel occupancy rates in 2007 at 63.5%, a figure that was "near the historical peak." Similarly, rates of 75% at business hotels are considered by some industry analysts to be essentially full – "if three quarters of the rooms are filled on average every night, the hotels are filled to capacity at midweek...at a business hotel, you are always going to have some vacancies on Sunday nights" (Luxenberg, 2007). No matter what the hotel's characteristics are though, maximizing occupancy rates is a common goal.

Likewise, ADR is an important measure of financial performance. Typically ADR is calculated by dividing the total rental revenue at a property by the number of rooms occupied by guests – generally including both rented and complimentary rooms. Together, ADR and occupancy are often used to calculate RevPAR, the metric widely considered to be the industry's main performance measure (IHG, 2008; Enz & Canina, The Best of Times, The Worst of Times: Differences in Hotel Performance following 9/11, 2002). RevPAR is generally used to measure the performance of the property, both against itself and the industry as a whole, and also provides the industry with a rough idea of industry supply and demand; when supply rises, ADRs will experience pressure as more rooms are competing for the same number of customers and the opposite will happen with either rising demand or falling supply.

Thus the industry uses RevPAR to gain insight into the health of both individual hotels and the industry as a whole. Studies have utilized RevPAR to provide deeper insight into geographical hotel performance trends, measure the influence of other factors like brand and location in net operating income, or better understand the effect of wider economic trends on hotel pricing (Enz & Canina, The Best of Times, The Worst of Times: Differences in Hotel Performance following 9/11, 2002; O'neill & Matilla, 2006; Withiam, 2006). RevPAR has also been shown to play an important role as a measurement of operational efficiency in internal performance tools like balanced scorecards (Huckestein & Duboff, 1999), while other studies have examined the impact of nonfinancial measures like customer satisfaction on financial measures like RevPAR (Banker, Potter, & Srinivasan, 2005).

The ubiquity of RevPAR as a performance measure within the industry notwithstanding, many have also challenged its usefulness. Enz et. al (2001) suggest that average RevPAR can be augmented with modal and

median values to provide a clearer picture of industry performance. Brown and Dev (1999) suggest that RevPAR can be replaced by other measures that can better account for total revenue at properties, including shops and restaurants, instead of high-profit margin room revenues. Paul Slattery (2002) strongly calls into question the validity of the RevPAR measurement and its usefulness in industry, highlighting what he considers practices utilized by the industry in calculation of the measure that result in strong biases.

Correspondingly, both the industry and researchers have also examined the effects of other parameters on hotel performance. One trend has been the adoption of balanced scorecards, which addresses the inadequacy of accounting performance measures in the service industry. According to P.A. Philips (2007), the balanced scorecard has been used to "identify performance measures that are broader in focus and include qualitative measures" that helps companies to both identify strategic objectives and measure performance against those objectives. In a different direction, Beldona and Cobanoglu (2007) research the impact of in-room technologies on room performance with guests, finding that technologies like internet access are important to the performance of a hotel. Gray et. al (2000) have analyzed the impact of market orientation on hotel *firm*, while Jan Mattsson (1994) and Haktanir and Harris (2005) have both utilized hotel case studies and interviews at individual hotels to better understand how performance measures are operationalized at the property level and how individual departments viewed these measures. Both case studies found that areas like innovation in service delivery could be improved and better measured at hotels, yielding what can be valuable information in improving performance.

5.2. The dilemma of RevPAR and environmental initiatives

What is clear however from these various studies is that hotel performance – whether measured through customer satisfaction, employee performance, or financial measures like productivity and profitability – are largely focused on driving up occupancy and gaining customers. The importance of occupancy is made even clearer during difficult economic times as the current period has shown. In a situation where most other industries are cutting costs to improve pressure on margins and maintain net revenues affected by reduced demand, hotels are concentrating on ensuring they can maintain RevPAR by boosting occupancy in an environment of diminishing demand.

As industry expert Howard Feiertag (Feiertag, 2009) writes, "the real key to doing your best business is to provide customer service that ensures the return of a guest." Deloitte (2009) suggests focusing on similar issues, stating that "hospitality organizations with innovative and cost effective programs will be able to increase customer loyalty and drive demand." In a different Deloitte report, Weissenberg and Huang (2008) prescribe "the green agenda, incentives, and cohesive branding" as means to take a "leadership position" and attract more customers. O'neill and Matilla's (2006) study shows that hotels with higher occupancy are generally more profitable, especially in times of recession. While costs will obviously affect profits, and are highlighted by many as a way to improve profitability (Gasson & Fitzgerald, 2008), it is clear that top line health – keeping rooms occupied – is still the top concern for hotels, even in a downturn.

The surveys conducted by Haktanir and Harris (2005) in their case study of a five-star resort hotel illustrate just how far down the lists costs often are for management. Of the seven departments surveyed, only two were concerned with profitability as a measure of performance (accounting and regional executives) and only the food and beverage manager viewed costs as an important performance measure. Measures like guest satisfaction, service quality, and average occupancy were seen by most departments the main measures of performance. This situation is also described by Chung and Parker (2008) in their literature review, where they find that most general managers surveyed place more emphasis on financial performance measures.

Even in cases where hotels do look at cutting costs, eco-initiatives rarely are at the top of the list of areas to focus. In the hotel industry, many industry analysts and insiders concentrate their cost-cutting measures on labor. Typical US hotels have labor costs that run between 43-45% of their total costs (Woodworth, Falling Industry Profits, 2009), making labor not just the largest chunk of costs, but also the most visible. When occupancy rates are in decline, hotels running on full staffs will end up having higher staff to guest ratios than they need. In past recessions, cutting payroll has been "the biggest source for cost cuts" and is still where many hotels look first

(Woodworth & Mandelbaum, 2009). Reducing payroll however does have potential impacts on customer satisfaction (PWC, 2009) and overhead costs as training of employees is a significant investment. Further, reducing payroll may also limit the human and management resources available for implementation environmental initiatives that may be pursued.

It is also notable here, that many hotels do not have a dedicated manager for environmental initiatives. Many hotels actually task a department like engineering or marketing, and sometimes both, to handle environmental initiatives (Interviewee 5; Interviewee 8). These departments often have neither the resources nor the incentives required to aggressively implement eco-initiatives. This situation is highlighted by Mattsson (1994), who describes the uphill battle that one technical support services manager faces in attempting to control resource usage: "At manager meetings, the support manager, reports on a special form, developed by himself, the total resource use by each department (electricity, water, etc.) estimated manually."

More progressive companies – the Fairmont has been a pioneer in this regard – may have green councils or green teams at individual properties that serve as voluntary advisors, champions, and project researchers. However, they generally have no decision making powers. Part of the difficulty in implementing green initiatives can be attributed to this lack of dedicated management resources, which is itself a direct result of what Chung and Parker (2008) call the "environmental control gap" that stems from the emphasis on financial performance measures that govern how hotels and employees are evaluated.

The example above from the Mattsson case study also highlights illustrates another challenge for the implementation of environmental initiatives in hotels – that of measuring resource usage and costs. Interviews conducted for this study shows that hotels have traditionally not taken special steps to measure resource usage, instead relying on utility company figures of total costs or usage. Nancy Scanlon (2007) found that lodging properties she surveyed showed an "unexpected lack of formal, systematic measurement and documentation of utility consumption rates and costs by individual lodging properties." Certainly most hotels have not measured resource costs in nearly as much detail as they track details that contribute to top-line figures like RevPAR. The importance of measuring guest satisfaction and customer loyalty, for example, is a direct result of the perception of their contribution to revenue generation.

On the other hand, tracking resource use in greater detail than at an overall property level will often require hotels to invest in both IT infrastructure as well as monitoring hardware. Even in cases where chains are now launching resource usage tracking systems – IHG's Green Engage and Hilton's HEAT system are two examples – much of the data being input is still property-level trend data from billing systems or meter readings (Bohdanowicz, Simanic, & Martinac, 2005). Detailed information about where inefficiencies on a property are (e.g. excessive use of electricity in a pool pump system or use of water in landscaping) could conceivably help direct limited capital resources to the most productive projects, but the spot-metering methodologies required to do so are unlikely to be installed in the near future.

The issues highlighted above are partially reflected in the idea of "perishability" – a common problem faced by service industries. Simply put, "perishability" is the idea that the product that hoteliers sell is the room itself and it cannot be stockpiled for later sales (Laws, 2004). Moreover, the lodging industry has an additional structural characteristic that greatly affects management choices – that of high initial and ongoing capital investments coupled with relatively lower variable costs. Hotels face a static supply of rooms in combination with fairly predictable variable costs; or, in other words, "because the marginal cost of selling a room is relatively low and room sales lead to other sales in the hotel's other facilities such as restaurants and bars, it is important that the number of occupied rooms is maximized" (Lockyer, 2007). As Collier and Gregory (1995) note, hotels are confident that they can operate hotels at profit given accurate forecasting of occupancy and average room rates; rooms that are filled are rooms that produce revenue.

On the other hand, many of the cost savings that can be generated through eco-initiatives - like in-room guest, recycling, low-flow showerheads and toilets, or energy saving in-room lighting – only materialize when guests are actually in the room. Hotels see no savings with CFL lighting in guest rooms if no guest is there to turn the

lights on; given this fact, hotels facing financial pressures in the face of occupancy declines understandably find it difficult to invest capital into eco-initiatives such as these. Further, hotels are actually used to having operating costs decline in periods of lower occupancy (Mandelbaum, 2008). For eco-initiatives, even those that affect overall operating costs and not just variable costs, the lack of accurate resource cost tracking means it is difficult for management to determine where savings are coming from, thus making eco-efficiency measures less attractive to operators who are not evaluated against these performance metrics anyway. The case is still that when faced with limited human resources and investment capital, the industry is more likely to focus on increasing occupancy, satisfying customers, and increasing revenue than it will on reducing resource usage.

6. Conclusion

6.1. Findings and thoughts

This study has attempted, through the previous four sections, to highlight some of the inherent structural issues in the lodging sector that have served as barriers to the widespread adoption of environmental responsibility programs and the implementation of environmental initiatives at individual properties. This study has been intentionally broad and ambitious, in an attempt to synergize a number of well-known and common ideas from not only the hospitality industry but other service industries as well. As approached, this study has tried to shed some light on an essentially new way of characterizing the hotel industry in relation to its environmental responsibility profile.

The findings from the four main sections of this study, are not in themselves, revolutionary or ground-breaking. Indeed, when presented, they may actually sound very much like common sense. Likewise, many of the issues raised in this study – agency theory and capital budgeting, perishability and sales strategy, and green customer segments for example – are well-studied in other academic disciplines. However, the presentation of these issues in relation to environmental responsibility and sustainability at hotels is essentially unstudied. The lack of attention this has gotten is curious, as it is clear that structural traits of the industry have greatly affected the acceptance of green programs in large hotel chains. Green programs, with their traditional emphasis on capital expenditures and cost savings, have naturally been a difficult sell to both owners and operators. Likewise for hotel brands who, for the most part, have questioned whether green programs actually contributed to brand equity when no clear customer segments could be drawn. Indeed, even most lay-observers of the industry could make the connection between the industry's resistance to these programs and the inherent structural characteristics of the lodging industry discussed here, and the tensions they generate, right away.

The integration of these issues and their interlocking nature that combine to form formidable structural barriers in the industry to the implementation of environmental initiatives is instructive. Understanding where these obstacles are located and how they arise will allow for more targeted actions and solutions to overcome them. While it is a cliché to say there is no silver bullet, in this case, it is an undeniable fact – or at least it is apparent that any silver bullet that is proposed must be a foundation upon which more tailored solutions are built, not just at the corporate or brand level, but also at the property level.

Recognition of what conditions are inherent and unchangeable within the current parameters of the industry is also a highly important result of this study. It is the case that the barriers discussed above are often self-reinforcing and based on fundamental conditions within the industry. For example, the nature of hotel construction (capital intensive) and economics (low marginal costs) means that perishability will always be a management issue. The existence of the perishability problem likewise leads to the emphasis on revenue generation and occupancy; even if a hotel is shuttered with zero expenses it is still an under-performing asset when viewed against its revenue potential. When faced with proposed capital expenditures from eco-efficiency measures that will only yield savings when guests are in the room, an owner with limited resources is not unreasonable in questioning this allocation of resources. Likewise, it is a natural conclusion for a hotel operator to consider whether there actually is an eco-conscious market segment when deciding between allocating marketing funds to an educational eco-initiative or to increasing brand equity in their target market. Given all of

these circumstances then, it is also certainly understandable when hotels apply scarce capital to upgrade customer loyalty tracking systems as opposed to more granular metering and measurement of resource usage.

It is not the intention of the examples mentioned above to suggest that choices are this simple, or binary in nature. However, given this study does suggest that for all of the surveys and studies that are done on how owners, operators, and franchisors make decisions, very few have applied this common sense framework. In other words, given a set of conditions like the ones outlined above, the choices that we see in the hotel industry when it comes to environmental initiatives are actually the most common sense ones. If the ambition is to change this outcome then the existing structural conditions must be modified, or a combination of incentives and information must be disseminated in order to change the "common sense" choice.

6.2. Next steps

Figure 6.1.1. Summary of findings

Property-level	Agency issuesMistrust between partners	 Conflicts between stakeholders on what is best for the property, especially in relation to capital investments Historical mistrust and lack of partnership between owners and operators Difficulty in finding common ground amongst multiple stakeholders
Brand-level	 "Green" customer segments Customer-driven innovations	 Intense and continuing segmentation of the market promotes search for the eco-conscious customer as a separate segment Hotels are reluctant to invest money in programs that their target market may not want "Eco-conscious" customers must be mainstreamed into target- segments for hotels to have incentive to be more eco-friendly
Corporate-level	Lack of "one-size-fits-all" potentialLowest common denominator	 Portfolios that go from economy to luxury hotels, in increasingly wide-geographical ranges, creates logistical nightmare for corporate-wide environmental initiatives Widely different conditions at properties makes it necessary for initiatives to be either highly tailored at a brand (or property) level, or reduced to targets and goals that all properties have a chance at achieving
Industry-level	 Perishability Lack of systematized measurements 	 Service industry with high initial costs and low marginal costs, means profit margins are high and hotel rooms must be occupied or hotels will suffer similar decreases in both gross and net revenue Focus is on occupancy; cost savings are often tied to room occupancy and thus cannot be realized without customers, reinforcing the emphasis on revenue generation Cost savings from eco-initiatives are difficult to quantify due to lack of detailed resource usage and costs measurements and accounting

This study finishes at a time of increasingly heartening announcements from the hospitality industry. Not only have smaller, more environmentally conscious companies proven that a "green" hotel can be profitable, they have also helped push the entire industry forward by showing that the ever elusive "green consumer" does exist. Further, with eco-conscious attitude becoming ever more mainstream, the market is ripe for hotels that offer consumers a more environmentally friendly profile. This has no doubt been one of the motivating factors behind the entrée of the big hotel groups into the ranks of the environmentally-conscious.

Today, Marriott, Hilton, IHG, Wyndham, and Accor have all committed themselves in one way or another to reducing their environmental impacts around the world. These are large, ambitious programs that aim to achieve system-wide reductions in resource usage and waste generation, amongst other targets. Yet, in the limited interviews conducted for this study, it is clear that even at hotels with well-publicized track records for environmental initiatives, that eco-efficiency and sustainability programs are still more of an ad-hoc affair than a unified, system-wide effort.

One key to overcoming this is the dissemination of information. Information discovered during interviews shows that hotels can benefit from the experiences of recognized environmental leaders in their region; hotels that have successfully implemented conservation plans or other environmental initiatives can share their experiences to ease the passage of other hotels in the area. In the US, the existence of municipal, county, or state incentive or rebate programs makes information sharing even more important, so that hotels do not have to duplicate the legwork that is often required to find, apply for, and receive this assistance. This type of information sharing is also important within hotel groups. While interviewees in this study asserted that most properties are unique, they nonetheless also stated that there was likely room for greater experience-sharing between properties.

The piloting of "Green Engage" at IHG and the launch of "Wyndham Green" are examples of how hotel groups are, in recognition of this issue, attempting to utilize their wide-reaching information technology systems to help share information, track resource usage, and generate friendly competition and partnership between hotels in the portfolio. These systems can play a large role in generating information and reference cases for lagging hotels and ensure that all hotels across the system are achieving minimum success in implementing environmental initiatives. It remains to be seen if the hotel groups will themselves begin to offer brand-specific platforms or regionally-tailored platforms as their environmental programs mature beyond the simplest ecoefficiency measures.

What is clear though, is that the environment for large, broad, and affective changes within the hotel industry is promising. It seems that environmental responsibility and sustainability are more popular with large hotel companies now than ever before; the announcements of ambitious, far-reaching plans have been made, portfolio-wide environmental metrics tracking and information sharing systems are being rolled out, and ecoconscious customers seem to exist in every segment. The stakes are also higher now than ever before. Success at large hotel chains, with their increased reach and staggering size, could spell success within the whole industry and significantly reduce impacts worldwide.

Yet as this paper has shown – barriers exist at every level. Corporate-level programs must still be adopted and implemented at the property level, and much work remains for successful implementation at the hundreds of thousands of different properties around the world. The path to environmental responsibility in the hotel industry will not be easy, nor will the solutions required be easily applicable across the many unique corporate entities, brands, and properties that exist.

To guarantee success, these barriers must be more efficiently addressed. This study posits that the observations of structural characteristics presented within and the framework for studying the industry that it suggests, when applied correctly, can contribute to this. Understanding the barriers created by the basic characteristics of the industry and being able to identify areas where simple, universal solutions exist, versus where much effort and emphasis must be expended to tailor solutions to unique situations, can increase not just the efficiency and efficacy of these solutions, but also the speed at which they are adopted.

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