

CHAPTER 4

RESULTS

4.1 The Industry Perspective

4.1.1 Profile of Respondents

A total of five in-debt interviews were conducted. Four of the interviews were of top management, either managing director, general manager or resident manager, of three hotel resorts and one interview with the Group Director of Property and Maintenance for the management company Six Senses Resorts and Spa responsible for nine existing hotel resorts and four under construction. The interviews were conducted in February 2006.

4.1.2 Main Environmental Practices

The main environmental practices at the resorts interviewed are shown in the table 4.1. There are many roads the hotel resorts may take leading to each point, and the extent of each done may vary. However, energy consumption, water consumption and waste production were the main areas concerned.

In terms of energy consumption, electricity saving was seen as the most important with peak consumption control, timer controls, energy saving light bulbs, low energy air-conditions and building techniques which allowed good insulation and natural ventilation to reduce need of air-condition. At Evason Phuket Resort even high voltage underground cables were put in to reduce electricity loss, highly unusual in Thailand, as well as solar thermal heating of hot water. Two of the hotel resorts use their hill location as an advantage to reduce number of water pumps by pumping water to a high location and letting it run down by use of gravity. One resort used gas boilers for laundry, linen folder and tumble dryer instead of diesel to reduce green gas emissions (CO₂). This was done as gas pollutes less than diesel.

Table 4.1 Main Environmental Practices

<i>Main Environmental Practices.</i>	
Energy Efficiency	Peak consumption control Energy saving light bulbs Low energy air conditions Insulation and natural ventilation High voltage underground cables Solar thermal heating Gas boilers Use of gravity
Water Management	Water saving faucets, shower heads and toilets Water reservoir Rain water catch Waste water treatment plant Gray water used for gardening
Waste Management	Recycling Composting Reuse of material and use of local material

Water consumption was reduced through installing water saving faucets, shower heads and toilets. All the resorts reported to have a waste water treatment plant, in which gray water could be used to water the garden, thus no need for unnecessary use of fresh water. Waste water treatment plant also ensures the ground and sea being polluted. Though all three hotel resorts interviewed have waste water treatment plants installed, the author, through observation and interviews with the managers, do not believe that this technology is not as widely practices as results from these interviews suggests. Waste water treatment plants is a space demanding technology, in which most hotel resorts rather want to use the land on profit generating buildings,

specially in hindsight of Phuket's increasing land prices. One of the managers said that they did not have to do it as they could just let the government take care of it. But they did it to reduce pollution because the government's facilities were too small to handle all the areas waste water, thus much went out in the sea untreated leading to increase of algae and seaweed worsening the destination. Nevertheless, it is positive that the hotel resorts care. One resort reported to have rain water catch and their own reservoir, which made them self-sufficient of water supply. Another resort used two deep water wells as source of water supply, thus not needing to use public water supplies. It also reduces the pollution in terms of no truck-loads of water needed to be brought to the resorts, reducing green gas emission (CO₂) for transport.

Though Phuket does not have any official waste separation plant all three resorts reported doing waste separation and recycling of paper, plastic, metal and food. In one case it was clear because they had experienced problems with waste collectors making a mess when going through the rubbish during collecting in order to find bottles and cans, which they could sell for recycling. The reason behind separation was then to reduce mess around its own rubbish bins. The objective was rather of an aesthetic character than an environmental reason. Another resort reported having set up a composting site on its premises to handle food waste from kitchen and green garden waste. This was motivated by the chance of reducing waste production as well as generating soil, which could be used in the garden. Thus there was a win-win situation. However, one manager pointed out that it would be much easier just to let the government collect the waste, but they choose to do it for environmental reasons.

4.1.3 Main Challenges in Operating Environmentally Friendly

The main challenges in developing and operating environmentally friendly are shown in table 4.2. Costs, lack of knowledge and time consuming were pointed out to be critical challenges. All the resorts pointed out lack of knowledge as the main challenge. This could be seen in several ways. For one, was the lack of knowledge amongst staff, which made it difficult to get them to understand why it was done. One of the resorts pointed out that much training needed to be done in order to get them to understand. A difficult task as it was not in their culture and education, as opposed to in several western developed countries. In Europe, for instance, many

countries include environmental issues in childrens' education. Several countries will also fine those households that do not separate their rubbish properly, thus people are reminded about environmental issues constantly from an early age. It was pointed out that this was a governmental responsibility in order to educate the general public. One of the managers said it was the government's responsibility to do more in terms of both education and setting standards by investing in infrastructure. By including the subject in the curriculum of primary education the level of awareness and understanding would increase.

Table 4.2 Main Challenges in Operating Environmentally Friendly

<i>Main Challenges in Operating Environmentally Friendly.</i>	
Lack of knowledge	Staff do not understand the concept Suppliers do not understand the concept Difficult to find suppliers with knowledge
Costs	Capital expenditure Investments needed first Difficult to justify investments
Time consuming	Time off regular work Extra training needed Monitoring

Furthermore, know-how was pointed out as a key challenge. It was said that the suppliers do not understand why environmental issues are important, and it is also difficult to find suppliers with special knowledge. It was also difficult to explain specialists what one really was looking for. Partly because of lack of knowledge from the hotel resorts side, but also because much of the technologies out there are not easily accessible. The hotel resorts cannot know everything, and often have to risk to try technologies and equipment that does not have much of a proven record. To do so it requires a brave investor/owner to risk having to see equipment fail. As one manager pointed out; *“one need a corporate strategy that allows you to go the extra mile and think different in order to achieve environmental targets.”*

This leads to the second challenge: Costs. No investor wants to invest in something that does not pay off. One of the challenges the managers pointed out was that operating environmentally friendly costs money first, often on equipment, which has not been used for long, thus lacking a proven track record. For this reason, there is a uncertainty of return on investment. The capital expenditure needed is often substantial making it difficult for managers to persuade investors and owners. Especially this is difficult in existing hotels, in which big changes may force closing down operations for a period adding substantial costs in form of loss revenue. With new projects, where this kind of cost is avoided, there might be an interest of investors to spend as little as possible before one see that it can be returned through operations. For profit driven investors there may not seem to be any logic reason to spend more than necessary. And the cheapest way is most often the least environmentally friendly. One of the hotel resorts interviewed was a new development, another had recently refurbished large parts of the hotel due to damages caused by the 26th December 2004 tsunami, whereas the last was an old existing hotel resort. This should imply that at least two of the hotel resorts investigated had good opportunities to install environmentally friendly technologies.

The fact that the investments are needed before one can see the results is a challenge for the managers. Furthermore, it can be difficult to justify as not all of the investments are paid off through cost savings. Few businesses have invested in environmentally friendly products before, making it difficult to know whether or not it is worth it. One of the hotel resorts interviewed were challenging the government to take a leading role through subsidising and giving tax incentives to companies willing to invest in environmentally friendly products. It was believed that this was the only way to get many companies doing the investments, and is used successfully in many of the countries with more advanced environmental practices. Another additional cost one manager mentioned was hiring additional staff to take care of environmental issues. Obviously, environmental issues requires human resources with both knowledge and time to work on it, which is something the hotel resorts need to allocate budgets for.

Time was another factor pointed out to be critical. Operating environmentally friendly ads another dimension requiring time set aside to plan, which normally would have been used on operations. Time had to be spent on adding additional policies and procedures to cover the environmental aspect. Time had also to be spent on planning as well as finding the right

environmental practices. Only one resort reported to do environmental training, which again required extra time. Also it was time consuming finding the right suppliers, technologies, equipment, spare parts, charities and NGOs. At last, all of this has to be monitored adding extra time spent on monitoring and paperwork, especially if the hotel resort would like to obtain environmental recognition through eco-labelling.

4.1.4 Main Advantages in Operating Environmentally Friendly

The main advantages in developing and operating environmentally friendly are shown in table 4.3. Cost savings, saving the environment and additional guests were mentioned as main advantages. Both cost saving and additional guests are economic reasons for choosing environmentally friendly operations. Cost savings contradicts in one way capital expenditure identified as a major challenge, but on the contrary a business needs to invest in order to make money and the cost savings are made because of newer, better and more efficient equipment and technologies. If this also can lead to additional guest more income will be generated helping on the bottom line profit.

Table 4.3 Main Advantages in Operating Environmentally Friendly

<i>Main Advantages in Operating Environmentally Friendly.</i>	
Cost savings	Reduced energy utility costs Building techniques and architecture
Benefits to destination	Reducing the negative impact on environment Giving back to the environment
Additional guests	Some return guests

All of the managers pointed out cost savings to certain extents as the main

advantages of environmentally friendly operations. Not all areas would be cost saving as mentioned in the main challenges, but energy utilities costs, particularly, were pointed out as an area where savings were made. One resort mentioned 20-30% savings on utility costs, whereas another estimated 30% plus. Figures of two to three years payback time through cost savings improved the chances of being implemented, and one of the managers expected to get their 16 million baht (US\$ 400,000) investment in a centralized chiller system (air-conditioning) paid back in three years through cost savings. The reason for these huge savings is because of up to 50% more energy efficient equipments reducing money spent on electricity. Furthermore, a move towards gas instead of diesel reduced the costs, especially at the moment with times of very high oil prices. For new hotels, building techniques and architecture using insulation and air-ventilation reduced the need for much electricity spent on air-conditioning in hot climates. This was particularly easier to do on new developments as architects could incorporate this in their drawing plans. For existing buildings it would possibly require, for instance, knocking down a wall, making it more complicated.

The managers pointed out the importance of caring for the environment in that guests did not come for the hotel resort, but for the destination Phuket. By reducing the negative environmental impact one would help the destination staying attractive in the long term. Without doing it over time the destination will decline leaving the hotel resorts with no business. Therefore, it was a long term benefit seen in caring for the environment. Several previously popular destinations, for instance Benidorm and Pattaya, have experienced a decline in tourism because of negative environmental impacts caused by tourism. Furthermore, it gave a good feeling being able to give back to the environment.

Additional guest were mentioned by one manager as important, especially that environmental issues could have an effect on getting return guests. However, it was generally not believed that there was any substantial market for environmentally conscious guests. One manager said it could be a possibility in the future, but at the moment the market was limited. In general, the managers did not see it as unique selling point, nor as something special to promote.

4.1.5 Delivering the Environmental Message

How the environmental message was delivered is shown in table 4.4. Generally, very little was done in terms of passing on the environmental message as it was not believed to be of interest. Other priorities was used as reason, and one manager said there was no need to brag as there was already much talk amongst other hotel resorts with little action. Too much claiming of environmental friendliness could potentially fire back on the hotel resorts as guests were not easily fooled. One of the resort said they did a lot on-site through training of staff and both informing, urging and showing guests environmental practices. Little of it, however, was used in marketing, which was indicated that guests did not know about it beforehand, but became aware during their stay. This had to do with the philosophy of the company wanting to do more environmental practices than they claimed. The belief was that it gave more credibility, and also a recognition that more could be done. Environmental certification, i.e. eco-label, was mentioned as an important tool in getting recognition and credibility.

Table 4.4 Delivering the Environmental Message

<i>Delivering the Environmental Message.</i>	
Delivered on-site to staff and guests	Training of staff Note in guests' information material
Marketing	Briefly mentioned in marketing on web-site of Evason Phuket Resort

The managers interviewed relied heavily of own experience and interpretation of environmental development and management when analysing the situation. This was probably a consequence of environmental development and management is not their major field, nor do they have any formal training or education within the field, but they are learning and experiencing through working and implementing environmental practices, as well as seeing the impact the hotel resorts have on the environment.

4.2 Demand for Environmentally Friendly Hotel Resorts

4.2.1 Profile of Respondents

408 valid questionnaires were collected. Of the respondents to the questionnaires amongst tourist in Phuket, 49.1 percent were from Europe, 17.2 percent from Oceania, 16.0 percent from Asia, 13.5 percent from America and 4.2 percent from Africa and the Middle East (refer to table 4.5). 59.8 percent of the respondents were male and 40.2 percent women. Around one third of the respondents fell within the age range of 30-44. Almost 50 percent of the respondents had bachelors education or higher, one quarter had only high school or less education and the remaining quarter had university diploma or equivalent. One quarter of the respondents had more that US\$ 100,000 or more in yearly household income. Around one quarter of the respondents stayed in luxury hotel resorts.

Table 4.5 Profile of Respondents of Questionnaires

<i>Profile of Respondents of Questionnaires.</i>		
<i>Variable</i>	<i>Description</i>	<i>Valid Percentage</i>
Area coming from (valid answers n = 401)	Europe	49.1
	Oceania	17.2
	Asia	16.0
	America	13.5
	Africa and the Middle East	4.2
Gender (valid answers n = 405)	Male	59.8
	Female	40.2
Age (valid answers n = 408)	Less than 18	0.7
	18-29	27.9
	30-44	34.8
	45-59	23.3
	60-74	12.3
	75 or more	1.0
Education	High School or less	24.6

<i>Profile of Respondents of Questionnaires.</i>		
(valid answers n = 406)	University Diploma	26.9
	Bachelor Degree	32.1
	Master	13.7
	PhD	2.7

Table 4.5 (Continued)

<i>Profile of Respondents of Questionnaires Continued.</i>		
<i>Variable</i>	<i>Description</i>	<i>Valid Percentage</i>
(valid answers n = 335)	Household Income Less than US\$ 25,000	10.7
	US\$ 25,000 - 49,999	29.6
	US\$ 50,000 - 74,999	22.7
	US\$ 75,000 - 99,999	13.7
	US\$ 100,000 or more	23.3

Table 4.6 Environmental Awareness

<i>Environmental Awareness.</i>		
<i>Variable</i>	<i>Description</i>	<i>Valid Percentage</i>
(valid answers n = 408)	Hotel Resort Preference Eco-labelled resort	68.1
	Indifferent of eco-label	28.4
	Non eco-labelled resort	3.4
(valid answers n = 406)	Environmental Premium Not willing to pay premium	43.8
	Willing to pay 5% premium	28.8
	Willing to pay 10% premium	20.2
	Willing to pay 15% premium	4.4
	Willing to pay 20% premium	2.7

68.1 percent of the respondents indicated that they would choose an eco-labelled hotel resort over one without eco-label if other criteria were equal (refer to table 4.6). 56.2 percent of the respondents would be willing to pay a premium for an eco-labelled resort, with the majority willing to pay up to 10 percent extra, 28.8 percent willing to pay 5 percent and 20.2 percent willing to pay 10 percent premium. Only 14.6 percent of the respondents who had obtained information about their accommodation before departure indicated that some of the information was related to environmental issues. 36.7 percent indicated having seen environmental practices at the resort, a majority writing down re-use of linen and towels to save water.

4.2.2 Factor Analysis

The overall mean value of all the eight factors of importance when choosing accommodation was 3.98 and the standard deviation was 0.83. The most important factor was location with 4.55 followed by service and prices, 4.20 and 4.19 respectively. The least important factor was hotel resort being eco-labelled and additional facilities, 3.48 and 3.60 respectively. All the factors, means and standard deviation are shown in table 4.7.

Table 4.7 Most Important Factors When Choosing Accommodation

<i>Most Important Factors When Choosing Accommodation.</i>				
<i>Factor</i>	<i>Mean^a</i>	<i>Standard Deviation</i>	<i>N^b</i>	<i>Ranking</i>
Location	4.55	0.58	403	1
Service	4.20	0.70	403	2
Price	4.19	0.78	401	3
Ease of booking	4.09	0.89	393	4
Reputation	4.01	0.83	396	5
Recommendations	3.73	0.89	388	6
Additional Facilities	3.60	1.06	396	7
Eco-label	3.48	0.93	393	8
Overall	3.98	0.83	-	-

^aMean value on a five-point Likert scale was used where “1” indicated “Not Important at All” and “5” indicated “Very Important”.

^bN equals number of valid answers.

The findings from the most important factors when choosing accommodation were confirmed and fitted well with the three major factors for choosing the hotel resort in which the respondents had been staying in this particular visit, with location, price and recommendations being the most important, and eco-labelled accommodation and past experience being the least important factors. All the factors for choosing the particular accommodation this time and popularity are shown in table 4.8.

Table 4.8. Key Factors for Choosing This Particular Accommodation

<i>Key Factors for Choosing This Particular Accommodation.</i>			
<i>Factor</i>	<i>Numbers</i>	<i>Percentage</i>	<i>Ranking</i>
Location	288	70.3%	1
Price	222	55.4%	2
Recommendations	162	40.4%	3
Appearance	128	31.9%	4
Reputation	113	28.2%	5
Service	91	22.7%	6
Past Experience	59	14.7%	7
Eco-label	44	11.0%	8

Note: Percentages add up to more than 100 because respondents were asked to identify three major factors for particular choice of accommodation.

The most important factors for choosing accommodation seen in table 4.9 were tested using a One-Way ANOVA in order to see if there was any relation between the factors, on the one side, and education, household income and region coming from, on the other. Where it was found a significance of 0.05 or less, p value, it would be assumed that there is a relation between the factors. It was found that there was no significant difference between the factors and

education indicating that education does not play a role in what factors guests use when choosing accommodation. It is not a surprise as location and service would be important to people no matter what education they might have. Furthermore, it was found that household income has an impact on what guests choose, with price and eco-labelled accommodation showing relation with a significance of 0.02. It may not be a surprise that price is correlated with level of household income as lower income levels would be more concerned in finding something they can afford. For guests with high household income price it not so much of an objective rather that the location is correct and the service level is high.

Table 4.9 Factor Analysis of Most Important Factors When Choosing Accommodation

<i>Factor Analysis of Most Important Factors When Choosing Accommodation.</i>			
<i>Factor</i>	<i>Sig. Education</i>	<i>Sig. Income</i>	<i>Sig. Region</i>
Location	0.61	0.16	0.81
Service	0.47	0.75	0.31
Price	0.79	0.02*	0.26
Ease of booking	0.74	0.52	0.01**
Reputation	0.94	0.11	0.44
Recommendations	0.83	0.91	0.04
Additional Facilities	0.39	0.29	0.01**
Eco-label	0.61	0.02*	0.02*

Note: ** indicates statistically significant difference between groups at $p < 0.01$, and * at $p < 0.05$ (One-Way ANOVA)

By using a Post Hoc LSD test it was found to be a difference in valuing price as an important factor between guests with more than a yearly household income of US\$ 75,000 or more, classified as higher household income, and those with less, classified as lower household income (refer to table 4.10).

Interestingly, relation between level of household income and choosing eco-label resorts as a major factor was found. This may be explained by people with more money think more about their environmental impact because they can afford to. Another explanation may be

that they are choosing more expensive hotels with higher service level consuming more through higher energy consumption and use of towels, linen and other amenities. They might then get a feeling of having more negative impact, thus a rise in concern and interest in eco-labelling is seen. Yet again, it could be because these people already got their location and service satisfied by staying in more upscale hotel resorts, therefore, they can also think about the bigger picture and include environmental impact.

Table 4.10 Post Hoc LSD Price Factor and Level of Household Income

<i>Post Hoc LSD Price Factor and Level of Household Income.</i>					
Dependent Variable	(I) Level of household income	(J) Level of household income	Mean Difference (I-J)	Std. Error	Sig.
Factor Price	Less than 25000	25000-49999	.14	.150	.359
		50000-74999	.12	.155	.457
		75000-99999	.27	.170	.108
		+100000	.43*	.155	.005
	25000-49999	Less than 25000	-.14	.150	.359
		50000-74999	-.02	.115	.850
		75000-99999	.14	.134	.311
		+100000	.30*	.115	.010
	50000-74999	Less than 25000	-.12	.155	.457
		25000-49999	.02	.115	.850
		75000-99999	.16	.141	.263
		+100000	.32*	.122	.009
	75000-99999	Less than 25000	-.27	.170	.108
		25000-49999	-.14	.134	.311
		50000-74999	-.16	.141	.263
		+100000	.16	.140	.251
+100000	Less than 25000	-.43*	.155	.005	
	25000-49999	-.30*	.115	.010	

	50000-74999	-.32*	.122	.009
	75000-99999	-.16	.140	.251

Note: * indicates statistically significant difference between groups at $p \leq 0.05$

Post Hoc LSD analysis indicated that there was a difference between price and eco-label in that it was found to a difference between guests with a yearly household income of US\$ 50,000 or more and those with less for the eco-label factor (refer to table 4.11). That there was a lower level for eco-label can indicate that more people worry about price than eco-label, though there is a bigger range of people finding environmental issues important.

Table 4.11 Post Hoc LSD Eco-label Factor and Level of Household Income

<i>Post Hoc LSD Eco-label Factor and Level of Household Income.</i>					
Dependent Variable	(I) Level of household income	(J) Level of household income	Mean Difference (I-J)	Std. Error	Sig.
Eco-label	Less than 25000	25000-49999	.27	.185	.142
		50000-74999	.37	.193	.056
		75000-99999	.47*	.212	.028
		+100000	.63*	.194	.001
	25000-49999	Less than 25000	-.27	.185	.142
		50000-74999	.10	.144	.492
		75000-99999	.20	.168	.245
		+100000	.36*	.145	.014
	50000-74999	Less than 25000	-.37	.193	.056
	50000-74999	Less than 25000	-.37	.193	.056
		25000-49999	-.10	.144	.492
		25000-49999	-.10	.144	.492
75000-99999		.10	.176	.585	
75000-99999		.10	.176	.585	
	+100000	.26	.155	.097	

75000-99999	Less than 25000	-.47*	.212	.028
	25000-49999	-.20	.168	.245
	50000-74999	-.10	.176	.585
	+100000	.16	.177	.363
+100000	Less than 25000	-.63*	.194	.001
	25000-49999	-.36*	.145	.014
	50000-74999	-.26	.155	.097
	75000-99999	-.16	.177	.363

Note: * indicates statistically significant difference between groups at $p \leq 0.05$

In terms of region the respondents come from, relation was found in ease of booking, additional facilities and eco-label. The latter can be explained by certain regions being more aware, familiar and custom with environmental issues. Traditionally Europe is a region with advanced environmental practices and was identified using Post Hoc LSD analysis to have this as a more important factor (refer to table 4.12).

Table 4.12 Post Hoc LSD Eco-label Factor and Region Coming From

<i>Post Hoc LSD Eco-label Factor and Region Coming From.</i>						
Dependent Variable		(I) Region Coming From	(J) Region Coming From	Mean Difference (I-J)	Std. Error	Sig.
Factor	Eco-label	Europe	Asia	-.35*	.135	.009
			America	.11	.143	.433
			Oceania	.18	.130	.176
			Oceania	.18	.130	.176
			Africa & Middle East	.06	.233	.800
			Africa & Middle East	.06	.233	.800
Asia	Europe	.35*	.135	.009		
Asia	Europe	.35*	.135	.009		
		America	.46*	.172	.007	

	Oceania	.53*	.161	.001
	Africa & Middle East	.41	.251	.103
America	Europe	-.11	.143	.433
	Asia	-.46*	.172	.007
	Oceania	.06	.168	.702
	Africa & Middle East	-.05	.256	.835
Oceania	Europe	-.18	.130	.176
	Asia	-.53*	.161	.001
	America	-.06	.168	.702
	Africa & Middle East	-.12	.249	.637
Africa & Middle East	Europe	-.06	.233	.800
	Asia	-.41	.251	.103
	America	.05	.256	.835
	Oceania	.12	.249	.637

Note: * indicates statistically significant difference between groups at $p \leq 0.05$

Surprisingly, guests from Asia also had a stronger favour for eco-labelled hotels, which is a region not known for many environmental practices except possibly the more developed countries such as Japan, South Korea and Singapore. It is possible that a large proportion of the Asian respondents came from these three nations, thus the high score. Another explanation may be that a large proportion, namely 68.8 percent, had higher education. People with higher education tend to care more about the environment. America, Oceania and Africa and the Middle East did not see eco-label as not such an important issue, which may reflect regions where consumption is more valued.

Respondents from Oceania and Africa and the Middle East were more prone to favour additional facilities and ease of booking. This can possibly be explained by less experience in travelling thus wanting security in pre-booked hotel resorts with additional facilities. Interestingly, it was the three least important factors that showed relation. One possible explanation is that regions are homogeneous thus having similar preferences.

A T-test was conducted in order to see if there was any significant difference

between genders, but results showed that there was not, indicating that genders perceive eco-label as an equally important factor (refer to table 4.13). Gender does not seem to have influence whether or not a person finds eco-label hotel resort as an important factor when choosing hotel. Differences in education between genders were also tested and no significant difference was found indicating that there was an equal level of education amongst the genders, thus no variation in preferences for eco-labelled hotel resorts.

Table 4.13 T-test of Relation between Gender and Factor Eco-label

<i>T-test of Relation between Gender and Factor Eco-label.</i>				
<i>Factor</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Significance</i>	<i>N</i>
Female	3.50	0.89	0.66*	161
Male	3.46	0.96		230

Note: * indicates statistically significant difference between groups at $p \leq 0.05$

4.2.3 Demand Analysis

This research tried to see if there is a demand for eco-labelled hotel resorts in order to establish whether environmental friendly development could be feasible as a strategy for luxury hotel resorts. As identified, 68.1 percent of the respondents indicated they would choose an eco-labelled hotel over one without an eco-label if other criteria were equal. Furthermore, 56.2 percent indicated willingness to pay a premium for an eco-labelled resort.

To assess differences within the population Chi-square test were applied. The test explores the covariance and relation between the population and tests differences. If there is an asymptotic distribution of less than 0.05 it is considered to be significant, and one can assume there is a relation.

There was identified a relation between those that would choose an eco-labelled resort and the level of education (refer to table 4.14). This could probably be explained that these people has more knowledge about the negative impact tourism has on the environment and the importance of preserving the natural environment. With knowledge of how the actions taken by humans effect the environment. Particularly in the light of globalisation and free market

increasing economic growth, more use of fossil fuels and luxury products such as tourism it is acknowledged that environmental problems is a global problem. Global warming, waste problems and lack of clean water are well known issues. Educated people might have more knowledge about these issues, and therefore are more aware of it and care about it. For this reason they might be more prone to choose an eco-labelled hotel resort over a non-eco-labelled hotel resorts.

Table 4.14 Percent among Level of Education Choosing Eco-label Resort

Percent among Level of Education Choosing Eco-label Resort.				
Level of education	Eco-label Resort	No eco-label	Indifferent	Total
High School	56.6%	5.1%	38.4%	100%
Diploma	61.1%	4.6%	34.3%	100%
Bachelor	78.3%	3.1%	18.6%	100%
Master	78.2%	0.0%	21.8%	100%
PhD	81.8%	0.0%	18.2%	100%
Total	68.4%	3.5%	28.1%	100%
Valid answers n = 402				
Asymptotic significance of Chi-square test: 0.012				

Note: Difference between groups is significant at $p \leq 0.05$

To further investigate the difference found of people choosing eco-label resort in level of education the population was grouped together as higher education (bachelors degree or more) and lower education (university diploma or less). Findings confirmed the relation found between level of education and likeliness of choosing eco-labelled hotel resorts as the difference was even clearer (refer to table 4.15).

Table 4.15 Percent among Higher and Lower Education choosing Eco-label Resort

Percent among Higher and Lower Education choosing Eco-label Resort.				
Level of Education	Eco-label Resort	No eco-label	Indifferent	Total
Lower Education	58.9%	4.8%	36.2%	100%

Higher Education	78.5%	2.1%	19.5%	100%
Total	68.4%	3.5%	28.1%	100%
Valid answers n = 402				
Asymptotic significance of Chi-square test: 0.000				

Note: Difference between groups is significant at $p \leq 0.05$

78.5% of higher education indicated preference to eco-labelled resort, whereas only 58.9 percent of lower education did so. Still both groups show great interest, but it indicates the more educated people are the more they care about the environment. Whether or not there is a difference among higher education was not tested as the sample was too little, but could be interesting to investigate for future researches. Less educated people seems to show more indifference with 36.2 percent saying they were indifferent in whether or not the hotel resort was eco-labelled opposed to 19.5 percent of people with higher education. The findings indicate that it is important to inform about environmental issues. Without awareness people will not think about the impact they cause as each individual's impact is not easily seen. Tourists will enjoy their holiday and go home ignorant about their impact. One individual might not make a big difference. However, it is the sum of many individuals, often too many in one particular place that will cause environmental damage. People have to be influenced and informed about the importance. Thus one could say environmental issues do not seem to be adopted voluntarily. Pure environmental tourists might be a very limited market, but with more awareness and knowledge people are likely to think and care about the environment and increasing the market share of people choosing eco-labelled resorts over others.

The findings, however, contradicts the findings from important factors when choosing accommodation in table 4.9, which suggested that there was no difference between people with different level of education. The contradiction seen between table 4.9 and tables 4.14-4.15 suggests that the findings are not conclusive. Differences are not seen when many factors are considered, but when only the environmental aspect is considered differences are seen. Possibly can this be explained by people having similar preferences in terms of factors for choosing accommodation. However, when confronted directly on environmentally friendly accommodation people with higher level of education are more aware of the issue and consider it more of value

than people with lower education.

No relation was identified between guests choosing eco-labelled resort and level of household income (refer to table 4.16), which seemed surprising since it was identified relation between household income and eco-label as an important factor (refer to table 4.9). The contradiction seen between table 4.9 and 4.16 suggests that the findings are not conclusive. Differences appeared when many factors were considered, which may have influenced people choices. In particular, price indicated differences suggesting that this would affect how people valued important factors. When choosing accommodation location, service and price were singled out as the most important factors.

Table 4.16 Percent among Level of Household Income choosing Eco-label Resort

Percent among Level of Household Income choosing Eco-label Resort.				
Level of household income	Eco-label Resort	No eco-label	Indifferent	Total
Less than \$ 25,000	61.1%	8.3%	30.6%	100%
\$ 25,000-49,999	66.7%	6.1%	27.3%	100%
\$ 50,000-74,999	65.8%	3.9%	30.3%	100%
\$ 75,000-99,999	73.9%	2.2%	23.9%	100%
\$ 100,000 or more	70.5%	1.3%	28.2%	100%
Total	67.8%	4.2%	28.1%	100%
Valid answers n = 335				
Asymptotic significance of Chi-square test: 0.703				

Note: Difference between groups is significant at $p \leq 0.05$

Naturally, location is important as identified by the manager interviewed guests are coming because of the destination. Furthermore the service provided is important as is an essential part of the product, and of course the price one has to pay for it matters. The price has to reflect what is received in terms of experiences of the product. Though eco-labelled hotel resort was the least important factor, there was a relatively small overall standard deviation indicating that guests use wide variety of factors when choosing accommodation. For guests with lower level of household income price will be of more importance than for guests with higher level of

household income when considering many factors, thus relation was found. However, when only considering the choice of eco-labelled hotel resort or not, assuming that all other criteria were the same, differences are not significant, thus no relation was found. Guests with lower household income then seem to be caring just as much for the environment.

To see if differences could be found when narrowing the level of household income, relation was also tested by grouping the respondents into high and low level of income. Again it was not found (refer to table 4.17).

Table 4.17 Percent among Higher and Lower Income choosing Eco-label Resort

Percent among Higher and Lower Income choosing Eco-label Resort.				
Level of Income	Eco-label Resort	No eco-label	Indifferent	Total
Lower Income	65.4%	5.7%	28.9%	100%
Higher Income	71.8%	1.6%	26.6%	100%
Total	67.8%	4.2%	28.1%	100%
Valid answers n = 335				
Asymptotic significance of Chi-square test: 0.156				

Note: Difference between groups is significant at $p \leq 0.05$

This strengthens the indication found that guests with lower level of household income care just as much about the environment as guests with higher level of household income. It can possibly be explained by both categories showing high interest in eco-labelled resort with 75.8 percent and 65.4 percent respectively. However, if other considerations are taken into account price seems to become more important for guests with lower level of household income, thus eco-labelling becomes less important. For guests with higher level of household income price might not be such an object, thus they have more freedom to consider eco-labelling as an important factor. For luxury hotel resort wanting to operate environmentally friendly it is still positive that the interest in eco-labelled is high amongst guests with high level of household income as these are more likely to choose luxury hotel resorts.

Significant differences between willingness to pay a premium for an eco-labelled resort was tested both with level of education (refer to table 4.18) and level of household income

(refer to table 4.19) were tested, and there were not found any relation.

This may seem unexpected as one could assume guests with more money would be more willing to pay a premium. However, these are more likely staying in luxury resorts, thus and percentage increase makes more impact on their account. And people with higher education might find it as an interesting and important issue, but may not necessarily be more willing to pay.

Nonetheless, after testing a relation was found indicating that people that are more positive to eco-labelled hotels are more willing to pay for it (refer to table 4.20). So if they already are interested in choosing an eco-labelled hotel resort, then they are more likely to be willing to pay a premium. Thus if a hotel resort can find the guests interested in environmental friendly hotel resorts it may find it easier to charge slightly higher prices.

Table 4.18 Percent Willing to Pay Premium among Level of Education

Percent Willing to Pay Premium among Level of Education.						
	Willingness to pay premium					
Level of Education	No	5%	10%	15%	20%	Total
High School	54.1%	27.6%	12.2%	4.1%	2.0%	100%
Diploma	44.9%	24.3%	25.2%	2.8%	2.8%	100%
Bachelor	40.3%	30.2%	20.9%	4.7%	3.9%	100%
Master	34.5%	36.4%	25.5%	3.6%	0.0%	100%
PhD	36.4%	36.4%	9.1%	18.2%	0.0%	100%
Total	44.0%	29.0%	20.3%	4.3%	2.5%	100%
Valid answers n = 400						
Asymptotic significance of Chi-square test: 0.203						

Note: Difference between groups is significant at $p \leq 0.05$

Table 4.19 Percent Willing to Pay Premium among Level of Household Income

Percent Willing to Pay Premium among Level of Household Income.		
	Willingness to pay premium	

Level of Household Income	No	5%	10%	15%	20%	Total
Less than \$ 25,000	44.4%	33.3%	11.1%	8.3%	2.8%	100%
\$ 25,000-49,999	40.4%	29.3%	22.2%	5.1%	3.0%	100%
\$ 50,000-74,999	36.8%	34.2%	21.1%	3.9%	3.9%	100%
\$ 75,000-99,999	43.5%	32.6%	21.7%	2.2%	0.0%	100%
\$ 100,000 or more	46.8%	26.0%	23.4%	1.3%	2.6%	100%
Total	41.9%	30.5%	21.0%	3.9%	2.7%	100%
Valid answers n = 334						
Asymptotic significance of Chi-square test: 0.885						

Note: Difference between groups is significant at $p \leq 0.05$

Table 4.20 Percent Willing to Pay Premium among Eco-label Resort

Percent Willing to Pay Premium among Eco-label Resort.						
	Willingness to pay premium					
Hotel Resort Preference	No	5%	10%	15%	20%	Total
Eco-label Resort	30.0%	35.7%	24.9%	5.8%	3.6%	100%
No Eco-label Resort	42.9%	7.1%	50.0%	0.0%	0.0%	100%
Indifferent	77.4%	14.8%	5.2%	1.7%	0.9%	100%
Total	43.8%	28.8%	20.2%	4.4%	2.7%	100%
Valid answers n = 406						
Asymptotic significance of Chi-square test: 0.000						

Note: Difference between groups is significant at $p \leq 0.05$

The luxury hotel resort guests were also tested in terms of demand for eco-labelled hotel resorts (refer to table 4.21) and willingness to pay for eco-labelled hotel resorts (refer to table 4.22) and no significant difference from neither the lower end nor the total was found. This would imply that neither interest for eco-labelled hotel resorts nor the willingness to pay premium does not depend on the type of accommodation, which suggests environmental friendly development may be employed as a strategy to gain competitive advantage by any type

of accommodation if looking only on demand side.

Table 4.21 Percent among Lower End and Luxury Accommodation choosing Eco-label

Resort

Percent among Lower End and Luxury Accommodation choosing Eco-label Resort.				
Type of Accommodation	Eco-label Resort	No eco-label	Indifferent	Total
Lower End	67.0%	4.0%	29.0%	100%
Luxury/Upscale	69.1%	2.1%	28.9%	100%
Total	67.5%	3.5%	29.0%	100%
Valid answers n = 400				
Asymptotic significance of Chi-square test: 0.669				

Note: Difference between groups is significant at $p \leq 0.05$

Table 4.22 Percent Willing to Pay Premium among Lower End and Luxury

Accommodation

Percent Willing to Pay Premium among Lower End and Luxury Accommodation.						
Type of Accommodation	Willingness to pay premium					Total
	No	5%	10%	15%	20%	
Lower End	43.9%	28.9%	19.9%	4.7%	2.7%	100%
Luxury/Upscale	46.4%	27.8%	19.6%	4.1%	2.1%	100%
Total	44.5%	28.6%	19.8%	4.5%	2.5%	100%
Valid answers n = 398						
Asymptotic significance of Chi-square test: 0.991						

Note: Difference between groups is significant at $p \leq 0.05$

The factor analysis identified Asia and Europe as the regions valuing eco-label as a more important factor than other regions (refer to table 4.9), thus one would expect to see the same trend in interest for eco-labelled hotel resorts. However, no significant difference was identified between the various regions neither in choosing eco-labelled resort (refer to table 4.23)

nor willingness to pay a premium (refer to table 4.24). The contradiction seen between table 4.9 and tables 4.23-4.24 suggests that the findings are not conclusive. This may be explained that the regions showed a similar distribution in luxury vs. lower end accommodation. Furthermore, the factor of eco-label when choosing accommodation was the least important so, when other elements are taken away those not viewing it as important might then think it is a good idea, thus opting for eco-labelled hotel resort. Another reason might be that the number of respondents in each region was too small to come with any conclusive assumptions. Therefore, the findings for regional differences might be said to be less reliable.

Table 4.23 Percent among Region Choosing Eco-label Resort

Percent among Region and Choosing Eco-label Resort.				
Region	Eco-label Resort	No eco-label	Indifferent	Total
Europe	61.9%	4.6%	33.5%	100%
Asia	73.4%	3.1%	23.4%	100%
America	79.6%	0.0%	20.4%	100%
Oceania	72.5%	1.4%	26.1%	100%
Africa & Middle East	64.7%	5.9%	29.4%	100%
Total	68.1%	3.2%	28.7%	100%
Valid answers n = 401				
Asymptotic significance of Chi-square test: 0.252				

Note: Difference between groups is significant at $p \leq 0.05$

Table 4.24 Percent among Region Willing to Pay Premium

Percent among Region and Willing to Pay Premium.						
	Willingness to pay premium					
Region	No	5%	10%	15%	20%	Total
Europe	45.4%	25.5%	23.5%	3.1%	2.6%	100%
Asia	40.6%	28.1%	18.8%	7.8%	4.7%	100%
America	37.0%	33.3%	20.4%	7.4%	1.9%	100%
Oceania	50.0%	33.8%	11.8%	2.9%	1.5%	100%
Africa & Middle East	41.2%	29.4%	17.6%	5.9%	5.9%	100%
Total	44.1%	28.6%	20.1%	4.5%	2.8%	100%
Valid answers n = 399						
Asymptotic significance of Chi-square test: 0.693						

Note: Difference between groups is significant at $p \leq 0.05$

4.3 Strategies in Phuket

All luxury hotel resorts in Phuket were approached either by phone or e-mail about their environmental practices, but only the three interviewed gave any reply. This could imply that the hotel resorts do not consider environmental issues as important or because the hotel resorts are not doing much environmental practices, thus do not want their hotel resort to come in a poor light. However, one cannot be conclusive.

For this reason, research was concentrated around the hotel resorts' marketing, in particular their web-sites and affiliated web-sites. The results from this investigation indicated that only two resorts, Banyan Tree Phuket and Evason Phuket Resort, have incorporated environmental issues as part of their strategy/philosophy (Banyan Tree Phuket 2006; Evason Phuket Resort 2006). Both hotel resorts have listed up several social and environmental projects, which they have undertaken. Practices include use of natural building materials, energy efficient equipment, refillable containers for soap and shampoo, rain water catch, waste water treatment plants amongst others. Banyan Tree has also set up a Green Imperative Fund dedicated for social

projects, whereas Six Senses (Evason Phuket Resort) dedicated 0.5 percent of their revenue to social projects. Both hotel resorts are part of chains that have environmental management as part of their strategy, and are trying to differentiate themselves through environmentally friendly hotel resort operations. The other hotel resorts were employing other strategies.

Interestingly, nine hotel resorts were identified to having obtained an eco-label, mostly Green Leaf Foundation, the Thai eco-label. This could imply that the Green Leaf Foundation has done a good job in promoting environmental practices as the numbers of hotel resorts is not consistent with studies showing only one percent of hotels being eco-labelled (APAT 2002; Tourism Authority of Thailand 2003). However, only four of the hotel resorts, Banyan Tree Phuket, Evason Phuket Resort, Laguna Beach Resort and Sheraton Grande Laguna Phuket had mentioned their environmental awards on their web-site suggesting again that environmental issues are not very much valued. Furthermore, four of the hotel resorts, Banyan Tree Phuket, Dusit Laguna, Laguna Beach Resort and Sheraton Grande Laguna Phuket, are part of an integrated resort, Laguna Phuket, which is urging for environmental practices through their environmental policy (Laguna Phuket, 2006). Though the individual hotels resorts of the Laguna Phuket have obtained eco-label, only Banyan Tree Phuket has environmental issues incorporate in their strategy. This shows that environmentally friendly hotel operations is not a widely used strategy in Phuket suggesting it could be possible for those wanting to use this strategy to differentiate itself and gain competitive advantage.

Strategies of the various luxury hotel resorts in Phuket primarily lie in offering superior service and facilities for guest to pamper themselves in luxury. JW Marriott Phuket Resort, Sheraton Grande Laguna Phuket, Le Meridien Phuket Beach Resort and Le Royal Meridien Phuket Yacht Club offer the advantage of being part of large international hotel chains, whereas, Trisara, Twin Palms Phuket, Bundarika Resort Spa and Villa and the Mangosteen Resort and Spa are either independent boutique hotel resorts or part of small chains offering the advantage of more privacy.