

## ***Towards Setting a Green Hotel Model- From a Marketing Standpoint Case study: Royal Tulip Hotel***

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### **Abstract :**

Green hotel is considered as an important and day-to-day topic, it's based on environmental practices that reduce the negative impact on the environment.

Our study aimed to measure the environmental requirements of green hotel from marketing standpoint at Royal Tulip Skikda. A questionnaire has been elaborated and distributed to a random sample of 50 employees, where we processed the data obtained by using the Statistical Package for the Social Sciences SPSS.

Through the results of the study we concluded that the degree of application of hotel's mix marketing elements is average, the elements include (Green service, Green price, Green place, Green promotion, Green people, Green physical evidence, Green process), eventually, depending the results, we formulated a proposed "Model" for green hotel; which elaborated to give a general overview of the study and to help all stakeholders to figure out their interesting part.

**Keywords:** Green Marketing, Green mix marketing, green hotels, Environmental standards.

**JEL codes:** M31, Z30, Q57.

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## 1. Introduction

Nowadays hotels become social and cultural centers that meet the needs and desires of society and presence of hotels has become a necessity of civilized life in all service, commercial, industrial and agriculture fields.

Many people view that the planet is rapidly fading due to the amount of toxic waste and pollution that have been released into the environment and believe that it is time of humans to take the necessary steps towards a greener earth to help future generations , it's not strange that we see green hotel growth all over the world that depends on green practices that can reduce the negative impact on the environment as : a traditional energy saving in the hotel and move to alternative energy.

It is important for hotel managers to understand that going green will help the environment and maintains natural resources and reduce expenses with providing a healthy and safe atmosphere for guests, also the keenness of hotels to rely on marketing is essential to promote the environmentally friendly practices and highlight their unique features, and ensure its distinction over competitors.

From the above we can bring up the following problematic: **To which extent does Royal Tulip Hotel meet the environmental requirements from a marketing standpoint to become a green hotel?**

This study takes its importance from increasing green hotel around the world and their role in protecting the environment and overcoming the problems of traditional hotels through their operations, that's why we choose Royal Tulip Hotel to know about its services and operations that it performs through preparing a fit model to know which kind of practices applied there.

To answer the problematic adopted in this research it was based on a descriptive approach that focused on describing the study variables, it is also adopted the analytical approach by explaining and interpreting the results of this study, which has tested and processed and extracted results by using SPSS program as a tool to achieve the objectives of the study.

This part examines earlier research on the use of sustainable practices in the hotel sector, including its advantages, difficulties, and effects on operations and visitor behavior:

- Järvensi's (2014) study on the original Sokos Hotel Villa's environmental sustainability: Assessing the hotel's dedication to environmental sustainability and identifying best practices to improve sustainability and lessen environmental impact were the goals of this research. According to the Nordic Ecolabel requirements, the hotel already employs a number of ecologically friendly measures, which enables consumption tracking and environmental performance evaluation. However, in order to guarantee a more thorough approach, the study suggested additional research concentrating on social sustainability. (Jarvensivu, 2014)
- Ollé Huntado's (2016) study on the Hotel Princess in Barcelona's use of environmental certifications : By examining the effects of ISO 14001 and EMAS certifications on management and operational procedures, this study investigated the advantages of implementing green practices in the hotel. The findings indicated that there was a gap in areas like environmental training and communication since the advantages were more noticeable at the management level than at the operational level. According to the report, hotel management should concentrate on closing this gap in order to guarantee that sustainability measures are implemented successfully at all levels. (Huntado, 2016)
- Price's (2018) study on the sustainability behavior of hotel guests: This study investigated if hotel visitors' actions during their stay align with their declared aims on sustainability. According to the results, visitors are more inclined to recycle and switch off lights as regular eco-friendly practices, while less common practices like water conservation need more support from educational materials. The survey also showed that visitors value sustainable practices including buying facilities in bulk, utilizing fair-trade goods, and giving away leftover stuff. Furthermore, it discovered that although some visitors are prepared to pay more for environmentally friendly

amenities, the typical acceptable price increase is small (less than \$5 per night). The study came to the conclusion that in order to improve both customer happiness and financial viability, hotels should proactively develop and promote sustainability measures. (Price, 2018)

## 2. Literature Review

### 2.1. Definition of green marketing

Green marketing (also known as eco-marketing or sustainable marketing): is the practice of marketing the offering on its environmental benefits. it is a practice of marketing the products that are environmentally friendly in themselves and have green benefits, or the eco-friendly business practices that are used for its production. these eco-friendly business practices include: (Ottman, 2011)

- Sustainable manufacturing;
- Reduced or zero carbon footprint;
- Reduced or zero water pollution;
- Recycled ingredients/materials;
- Recyclable products;
- Renewable ingredients /materials;
- Eco-friendly packaging;
- Reduced or zero plastic footprint.

American marketing Association defines green marketing as: “the marketing of products that are presumed to be environmentally safe; it involves development and promotion of products and services that satisfy customers desire and need for quality, performance affordable pricing and convenience without having a detrimental input on the environment.” (AMA)

### 2.2. Green Hotel

#### a. Definition of green hotel

*ASEAN Green Hotel Standard* defined Green hotel as:

“Green hotel is a hotel which is environmentally-friendly and adopts energy conservation measures.” (ASEAN, 2007)

Chen, L., & Chen, W. defined green hotel as: “Green hotel is a hotel which provides both facilities and services with the idea of environmental protection “ (Chen, 2012)

#### b. Characteristics of Green Hotels

Green hotels follow strict green guidelines to ensure that their guests are staying in safe non-toxic and energy-efficient accommodation here is some basic characteristics of a green hotel: (Sloan, 2013)

- Housekeeping uses non-toxic cleaning agents and laundry detergent;
- 100% organic cotton sheets, towels and mattresses;
- Non-smoking environment;
- Renewable energy source like solar or wind energy;
- Bulk organic soap and amenities instead of individual packages to reduce waste;
- Guest room and lobby recycling bins;
- Towel and sheet reuse (guests can tell housekeeping to leave these slightly used items to reduce water consumption);
- Energy-efficient lighting;
- On-site transportation with green vehicles;
- Serve organic and local-grown food;
- Non-disposable dishes;
- Offers a fresh-air exchange system;

- Grey water recycling, which is the reuse of kitchen, bath and laundry water for garden and landscaping;
- Newspaper recycling program.

### 3. Methodology

#### 3.1. Royal Tulip Hotel – SKIKDA

Royal tulip Hotel SKIKDA it's a five-star hotel equipped with modern furniture and other amenities, the hotel provides of variety services and activities to meet the needs of business and leisure travelers.

The design of hotel appears as a pyramid building, it contain 14 floors it was designed by the Lebanese designer "JoyShahwan" it was opened to receive customers on May 30, 2015. This hotel is managed by mother foundation Golden Tulip Louvre Hotel.

The hotel area is 20000 m<sup>2</sup> it contain 200 workers including 100 security agents it also contains 244 spacious rooms and luxury suites with elegant furniture and panoramic view and three meeting rooms and restaurant.

Hotel seeks to offer high quality of services to meet the needs of its customers.

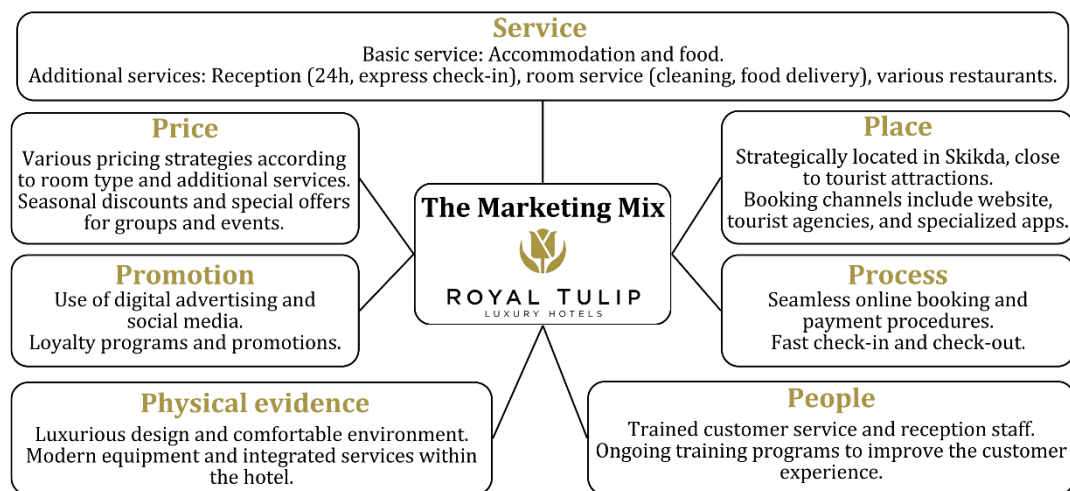


Figure 1: The Marketing Mix of Royal Tulip Hotel

#### a. Study hypotheses

- H1:** The application degree of green service element is high in Royal Tulip Hotel.
- H2:** The application degree of green price element is high in Royal Tulip Hotel.
- H3:** The application degree of green place element is high in Royal Tulip Hotel.
- H4:** The application degree of green promotion element is high in Royal Tulip Hotel.
- H5:** The application degree of green people element is high in Royal Tulip Hotel.
- H6:** The application degree of green process element is high in Royal Tulip Hotel.
- H7:** The application degree of green physical evidence element is high in Royal Tulip Hotel.

#### b. A study population and sample

The study population is royal tulip employees (200 employees), and because of COVID-19 Pandemic, the hotel has downsized the number of employees to 100. Where we have distributed 50 questionnaires on November 2024, so that we can generalized the results of the study on the hotel employees.

We used Statistical methods in order to analyze and interpret the results of the study. We relied on SPSS program by arithmetic mean, average arithmetic, correlation coefficient and standard deviation to test hypotheses.

Table 1: Respondent demographic variables

| Variable          | Variable categories |                      |                         |                    |              |
|-------------------|---------------------|----------------------|-------------------------|--------------------|--------------|
| Gender            | Male                |                      |                         | Female             |              |
|                   | 54%                 |                      |                         | 46%                |              |
| Age               | less than 25        | 25-34                | 35-44                   | 45-54              | more than 55 |
|                   | 0%                  | 26%                  | 46%                     | 26%                | 2%           |
| Education level   | Bachelors degree    | Post graduate degree | High school certificate | Vocational diploma |              |
|                   | 22%                 | 18%                  | 38%                     | 22%                |              |
| Years experiences | less than 5 years   |                      |                         | more than 5 years  |              |
|                   | 40%                 |                      |                         | 60%                |              |

According to the table, 46% of the sample is female and 54% is male. In terms of age distribution, 46% of respondents are between the ages of 35 and 44, followed by equal shares of those between the ages of 25 and 34 and 45 and 54 (26% each), with only 2% being beyond the age of 55. 38% of them have completed high school, 22% have earned a bachelor's degree, 22% have earned a vocational diploma, and 18% have earned a postgraduate degree. Furthermore, 40% of respondents have fewer than five years of job experience, whilst the majority (60%) have more than five years.

### c. Proof of the study instrument

Table 2: Cronbach alpha coefficient for each section

| Sections                | Number of phrases | Stability coefficient Cronbach alpha |
|-------------------------|-------------------|--------------------------------------|
| Green Service           | 05                | 0.769                                |
| Green Price             | 05                | 0.899                                |
| Green Place             | 05                | 0.839                                |
| Green Promotion         | 05                | 0.651                                |
| Green People            | 05                | 0.703                                |
| Green Process           | 05                | 0.823                                |
| Green Physical evidence | 05                | 0.872                                |
| <b>Total</b>            | <b>35</b>         | <b>0.897</b>                         |

Based on the results obtained, this table indicates that the value of Cronbach-alpha for various sections exceeded 60% which is ranged between 0.651 and 0.899 which is high value while the total value of Cronbach alpha coefficient is 0.897 which is also high, this indicates the stability of the measuring tool in terms of the phrases included in the questionnaire.

### d. Internal consistency validity

The internal consistency validity of each phrases and the dimension to which it belongs has been calculated by calculating Pearson correlation coefficient and this can be clarified as follows:

Table 3: Measuring the validity of the internal consistency of Green Marketing Mix phrases

| Green Marketing Mix | Phrases | Pearson correlation coefficient | Indication level |
|---------------------|---------|---------------------------------|------------------|
| Green Service       | 1       | 0.750**                         | 0.000            |
|                     | 2       | 0.703**                         | 0.000            |

|                            |   |         |       |
|----------------------------|---|---------|-------|
|                            | 3 | 0.711** | 0.000 |
|                            | 4 | 0.741** | 0.000 |
|                            | 5 | 0.711** | 0.000 |
| Green Price                | 1 | 0.833** | 0.000 |
|                            | 2 | 0.877** | 0.000 |
|                            | 3 | 0.860** | 0.000 |
|                            | 4 | 0.817** | 0.000 |
|                            | 5 | 0.835** | 0.000 |
| Green Place                | 1 | 0.751** | 0.000 |
|                            | 2 | 0.783** | 0.000 |
|                            | 3 | 0.787** | 0.000 |
|                            | 4 | 0.771** | 0.000 |
|                            | 5 | 0.812** | 0.000 |
| Green Promotion            | 1 | 0.727** | 0.000 |
|                            | 2 | 0.657** | 0.000 |
|                            | 3 | 0.671** | 0.000 |
|                            | 4 | 0.780** | 0.000 |
|                            | 5 | 0.713** | 0.000 |
| Green People               | 1 | 0.569** | 0.000 |
|                            | 2 | 0.609** | 0.000 |
|                            | 3 | 0.684** | 0.000 |
|                            | 4 | 0.779** | 0.000 |
|                            | 5 | 0.732** | 0.000 |
| Green Process              | 1 | 0.597** | 0.000 |
|                            | 2 | 0.754** | 0.000 |
|                            | 3 | 0.831** | 0.000 |
|                            | 4 | 0.806** | 0.000 |
|                            | 5 | 0.830** | 0.000 |
| Green evidence<br>Physical | 1 | 0.859** | 0.000 |
|                            | 2 | 0.743** | 0.000 |
|                            | 3 | 0.837** | 0.000 |
|                            | 4 | 0.796** | 0.000 |
|                            | 5 | 0.833** | 0.000 |

**Green Service:** From the table above, it becomes clearly that the value of the correlation coefficient for green service phrases ranged between 0.703 and 0.750 and it is positive and a statistical function at significant level of 0.01 and therefore the phrases are true to what they are measured.

**Green Price:** From the table it becomes clear that the value of the correlation coefficient for green price phrases ranged between 0.817 and 0.877 and it is positive and a statistical function at significant level of 0.01 and therefore the phrases are true to what they are measured.

**Green Place:** From the table above, it becomes clearly that the value of the correlation coefficient for green place phrases ranged between 0.751 and 0.812 and it is positive and a statistical function at significant level of 0.01 and therefore the phrases are true to what they are measured.

**Green Promotion:** From the table it becomes clear that the value of the correlation coefficient for green promotion phrases ranged between 0.657 and 0.780 and it is positive and a statistical function at significant level of 0.01 and therefore the phrases are true to what they are measured.

**Green People:** From the table it becomes clear that the value of the correlation coefficient for people phrases ranged between 0.569 and 0.779 and it is positive and a statistical function at significant level of 0.01 and therefore the phrases are true to what they are measured.

**Green Process:** From the table it becomes clear that the value of the correlation coefficient for green process phrases ranged between 0.597 and 0.831 and it is positive and a statistical function at significant level of 0.01 and therefore the phrases are true to what they are measured.

**Green Physical Evidence:** From the table it becomes clear that the value of the correlation coefficient for green physical evidence phrases ranged between 0.743 and 0.859 and it is positive and a statistical function at significant level of 0.01 and therefore the phrases are true to what they are measured.

## e. Green Marketing Mix Elements Analyses

### 1. Green service

Green Service phrases can be summarized as follows:

Table 4: the arithmetic mean of green service phrases

| Phrases      | The Mean | Standard deviation | Degree of approval | Arrangement |
|--------------|----------|--------------------|--------------------|-------------|
| 1            | 1,8200   | 0,66055            | partially applied  | 4           |
| 2            | 1,8000   | 0,67005            | partially applied  | 5           |
| 3            | 1,9200   | 0,66571            | partially applied  | 3           |
| 4            | 2,1800   | 0,71969            | partially applied  | 2           |
| 5            | 2,2400   | 0,79693            | partially applied  | 1           |
| <b>Total</b> | 1,9920   | 0,50783            | partially applied  |             |

The table number one indicates the answers of the study sample for expressions related to the level of importance of the green service as follows:

1-The arithmetic mean of phrase 5 is 2,2400 which is higher than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,79693 and this is what it shows that there is a partial application by the study sample which indicate that the care products in rooms are kind of healthy products.

2-The arithmetic mean of phrase 4 is 2,1800 which is higher than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,71969 and this is what it shows that there is a partial application by the study sample which indicate that the hotel provides a spa and cares for the health of guests but not so well.

3-The arithmetic mean of phrase 3 is 1,9200 which is less than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,66571 and this is what it shows that there is a partial application by the study sample which indicate that the hotel use kind of non-toxic cleaning materials.

4-The arithmetic mean of phrase 1 is 1,8200 which is less than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,66055 and this is what it shows that there is a partial application by the study sample which indicate that lodging and psychological comfort of the rooms overlooking natural views.

5-The arithmetic mean of phrase 2 is 1,8200 which is less than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,67005 and this is what it shows that there is a partial application by the study sample which indicate that the hotel offers organic food to guests.

### 2. Green Price

Green Price phrases can be summarized as follows:

Table 5: The arithmetic mean of green Price phrases

| Phrases | The Mean | Standard deviation | Degree of approval | Arrangement |
|---------|----------|--------------------|--------------------|-------------|
| 1       | 2,0000   | 0,75593            | partially applied  | 1           |
| 2       | 1,8400   | 0,76559            | partially applied  | 4           |
| 3       | 1,8600   | 0,75620            | partially applied  | 3           |
| 4       | 1,9000   | 0,78895            | partially applied  | 2           |

|              |        |         |                   |   |
|--------------|--------|---------|-------------------|---|
| 5            | 1,8600 | 0,80837 | partially applied | 3 |
| <b>Total</b> | 1,8920 | 0,65429 | partially applied |   |

The table number one indicates the answers of the study sample for expressions related to the level of importance of the green price as follows:

1-The arithmetic mean of phrase 1 is 2,0000 which is higher than the total arithmetic mean estimated with 1,8920 and standard deviation with 0,75593 and this is what it shows that there is a partial application by the study sample which indicate that the hotel sets special prices for environmental products and services but not significantly.

2-The arithmetic mean of phrase 4 is 1,9000 which is higher than the total arithmetic mean estimated with 1,8920 and standard deviation with 0,78895 and this is what it shows that there is a partial application by the study sample which indicate that the hotel purchase equipment to save energy but not significantly like: solar panels.

3-The arithmetic mean of phrases 3 and 5 is 1,8600 which is less than the total arithmetic mean estimated with 1,8920 and standard deviation with 0,75620 and 0,80837 and this is what it shows that there is a partial application by the study sample which indicate that the guest accepts an increase in the price when he receive an environmentally friendly product or service (organic food ) but not significantly, the hotel also purchase less dangerous materials like less toxic detergents.

4-The arithmetic mean of phrase 2 is 1,8400 which is less than the total arithmetic mean estimated with 1,8920 and standard deviation with 0,76559 and this is what it shows that there is a partial application by the study sample which indicate that the hotel purchase from local institution like: farms.

### 3. Green Place

Green Place phrases can be summarized as follows:

Table 6: The arithmetic mean of green Place phrases

| Phrases      | The Mean | Standard deviation | Degree of approval | Arrangement |
|--------------|----------|--------------------|--------------------|-------------|
| 1            | 1,6400   | 0,66271            | partially applied  | 2           |
| 2            | 1,6000   | 0,67006            | partially applied  | 3           |
| 3            | 1,7000   | 0,67763            | partially applied  | 1           |
| 4            | 1,5400   | 0,61312            | partially applied  | 4           |
| 5            | 1,7000   | 0,64681            | partially applied  | 1           |
| <b>Total</b> | 1,6360   | 0,51061            | partially applied  |             |

The table number one indicates the answers of the study sample for expressions related to the level of importance of the green place as follows:

1-The arithmetic mean of phrases 3 and 5 is 1,7000 which is higher than the total arithmetic mean estimated with 1,6360 and standard deviation with 0,67763 and 0,64681 respectively this is what it shows that there is a partial application by the study sample which indicate that the goods are received by hotel staff at specific times, and also the hotel provide information by the staff about programs created to increase environmental awareness for guests.

2-The arithmetic mean of phrase 1 is 1,6400 which is higher than the total arithmetic mean estimated with 1,6360 and standard deviation with 0,66271 and this is what it shows that there is a partial application by the study sample which indicate that in the hotel online reservation are not made via hotel's website or from Booking, Trivago.

3-The arithmetic mean of phrase 2 is 1,6000 which is less than the total arithmetic mean estimated with 1,6360 and standard deviation with 0,67006 and this is what it shows that there is a partial application by the study sample which indicate that the location of the hotel is difficult to reach.

4-The arithmetic mean of phrase 4 is 1,5400 which is less than the total arithmetic mean estimated with 1,6360 and standard deviation with 0,61312 and this is what it shows that there is a partial

application by the study sample which indicate that the hotel does not provide the necessary information by tourism agencies for environmental protection on time and in the right place.

#### 4. Green Promotion

Green Promotion phrases can be summarized as follows:

Table 7: The arithmetic mean of green Promotion phrases

| Phrases      | The Mean | Standard deviation | Degree of approval | Arrangement |
|--------------|----------|--------------------|--------------------|-------------|
| 1            | 2,1600   | 0,84177            | partially applied  | 1           |
| 2            | 2,0600   | 0,76692            | partially applied  | 2           |
| 3            | 1,9000   | 0,73540            | partially applied  | 4           |
| 4            | 2,0200   | 0,74203            | partially applied  | 3           |
| 5            | 1,8200   | 0,69076            | partially applied  | 5           |
| <b>Total</b> | 1,9920   | 0,53599            | partially applied  |             |

The table number one indicates the answers of the study sample for expressions related to the level of importance of the green promotion as follows:

1-The arithmetic mean of phrase 1 is 2,1600 which is higher than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,84177 and this is what it shows that there is a partial application by the study sample which indicate that the hotel make advertisement through various media about programs on environmental protection to raise awareness of the local community.

2-The arithmetic mean of phrase 2 is 2,0600 which is higher than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,76692 and this is what it shows that there is a partial application by the study sample which indicate that the hotel promote the environmental services but not so well like : sea trips, natural reserves.

3-The arithmetic mean of phrase 4 is 2,0200 which is higher than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,74203 and this is what it shows that there is a partial application by the study sample which indicate that the hotel sets awareness programs to protect the environment via website and social media

4-The arithmetic mean of phrase 3 is 1,9000 which is less than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,73540 and this is what it shows that there is a partial application by the study sample which indicate that the hotel Reliance on guests VIP to promote environmentally friendly services.

5- The arithmetic mean of phrase 5 is 1,8200 which is less than the total arithmetic mean estimated with 1,9920 and standard deviation with 0,69076 and this is what it shows that there is a partial application by the study sample which indicate that exhibitions and seminars are held in the hotel in order to introduce the services of the hotel especially environmentally friendly.

#### 5. Green People

Green People phrases can be summarized as follows:

Table 8: The arithmetic mean of green People phrases

| Phrases      | The Mean | Standard deviation | Degree of approval | Arrangement |
|--------------|----------|--------------------|--------------------|-------------|
| 1            | 1,6000   | 0,67006            | not applicable     | 5           |
| 2            | 1,9200   | 0,60068            | partially applied  | 4           |
| 3            | 2,1400   | 0,67037            | partially applied  | 1           |
| 4            | 2,1200   | 0,68928            | partially applied  | 2           |
| 5            | 2,0800   | 0,77828            | partially applied  | 3           |
| <b>Total</b> | 1,9720   | 0,46249            | partially applied  |             |

The table number one indicates the answers of the study sample for expressions related to the level of importance of the people as follows:

1-The arithmetic mean of phrase 3 is 2,1400 which is less than the total arithmetic mean estimated with 1,9720 and standard deviation with 0,67037 and this is what it shows that there is a partial application by the study sample which indicate that the hotel encourages its guests to reuse, recycling waste and separation but not so well.

2-The arithmetic mean of phrase 4 is 2,1200 which is higher than the total arithmetic mean estimated with 1,9720 and standard deviation with 0,68928 and this is what it shows that there is a partial application by the study sample which indicate that the hotel encourages suppliers but not so well to obtain local and environmentally friendly suppliers.

3-The arithmetic mean of phrase 5 is 2,0800 which is higher than the total arithmetic mean estimated with 1,9720 and standard deviation with 0,77828 and this is what it shows that there is a partial application by the study sample which indicate that the hotel sensitize the local community to maintain the environment but not significantly.

4--The arithmetic mean of phrase 2 is 1,9200 which is less than the total arithmetic mean estimated with 1,9720 and standard deviation with 0,60068 and this is what it shows that there is a partial application by the study sample which indicate that the hotel encourage its guests but not so well to involvement in saving water and energy.

5-The arithmetic mean of phrase 1 is 1,6000 which is less than the total arithmetic mean estimated with 1,9720 and standard deviation with 0,67006 and this is what it shows that there is no application by the study sample which indicate that the hotel does not train staff to raise environmental awareness.

## 6. Green Process

Green Process phrases can be summarized as follows:

Table 9: The arithmetic mean of green Process phrases

| Phrases      | The Mean | Standard deviation | Degree of approval | Arrangement |
|--------------|----------|--------------------|--------------------|-------------|
| 1            | 1,6000   | 0,63888            | not applicable     | 3           |
| 2            | 1,6800   | 0,65278            | partially applied  | 1           |
| 3            | 1,5800   | 0,67279            | not applicable     | 4           |
| 4            | 1,5600   | 0,67491            | not applicable     | 5           |
| 5            | 1,6400   | 0,66271            | not applicable     | 2           |
| <b>Total</b> | 1,6120   | 0,50533            | not applicable     |             |

The table number one indicates the answers of the study sample for expressions related to the level of importance of the green process as follows:

1-The arithmetic mean of phrase 2 is 1,6800 which is higher than the total arithmetic mean estimated with 1,6120 and standard deviation with 0,65278 and this is what it shows that there is a partial application by the study sample which indicate that in the hotel a plan is drawn up to increase environmental awareness but not significantly.

2-The arithmetic mean of phrase 5 is 1,6400 which is higher than the total arithmetic mean estimated with 1,6120 and standard deviation with 0,66271 and this is what it shows that there is a partial application by the study sample which indicate that in the hotel meters are not installed to monitor energy consumption.

3-The arithmetic mean of phrase 1 is 1,6000 which is less than the total arithmetic mean estimated with 1,6120 and standard deviation with 0,63888 and this is what it shows that there is no application by the study sample which indicate that the environmental management plan is not established for hotel operation.

4-The arithmetic mean of phrase 3 is 1,5800 which is less than the total arithmetic mean estimated with 1,6120 and standard deviation with 0,67279 and this is what it shows that there is no application

by the study sample which indicate that the energy saving technologies and techniques are not installed and used in the hotel.

5-The arithmetic mean of phrase 4 is 1,5600 which is less than the total arithmetic mean estimated with 1,6120 and standard deviation with 0,67491 and this is what it shows that there is no application by the study sample which indicate that the water contamination minimization program is not implemented in the hotel.

## 7. Green Physical Evidence

Green Physical evidence phrases can be summarized as follows:

Table 20: The arithmetic mean of green Physical Evidence phrases

| Phrases      | The Mean | Standard deviation | Degree of approval | Arrangement |
|--------------|----------|--------------------|--------------------|-------------|
| 1            | 1,6200   | 0,66070            | not apply          | 1           |
| 2            | 1,6000   | 0,67006            | not applicable     | 2           |
| 3            | 1,6200   | 0,66070            | not applicable     | 1           |
| 4            | 1,5800   | 0,67279            | not applicable     | 3           |
| 5            | 1,6000   | 0,67006            | not applicable     | 2           |
| <b>Total</b> | 1,6040   | 0,54434            | not applicable     |             |

The table number one indicates the answers of the study sample for expressions related to the level of importance of the green physical evidence as follows:

1-The arithmetic mean of phrases 1and 3 is 1,6200 which is higher than the total arithmetic mean estimated with 1,6040 and standard deviation with 0,66070 and this is what it shows that there is no application by the study sample which indicate that there is no noise control technology in the hotel and also the hotel does not use lighting motion sensor inside and outside the hotel.

2-The arithmetic mean of phrases 2and5is 1,6000which is higher than the total arithmetic mean estimated with 1,6040and standard deviation with 0,67006and this is what it shows that there is no application by the study sample which indicate that there is no leaflets inside the hotel indicate smoking and non-smoking areas and the design non-compatible with building and nature surrounding the hotel.

3-The arithmetic mean of phrase 4 is 1,5800 which is higher than the total arithmetic mean estimated with 1,6040 and standard deviation with 0,67279 and this is what it shows that there is no application by the study sample which indicate that the hotel does not Use a method to control computer adaptation system and operate the kitchens and energy saving cooling devices.

## 4 Test hypothesis and Discussion

### a. Test hypothesis of the study

Table 31: Table caption

| Element                | Arithmetic mean | Standard deviation | Application ratio | T value | Significance level |
|------------------------|-----------------|--------------------|-------------------|---------|--------------------|
| <b>Green Service</b>   | 1,9920          | 0,50783            | 66,4%             | 14,035  | 0,000              |
| <b>Green Price</b>     | 1,8920          | 0,65429            | 63,06%            | 11,974  | 0,000              |
| <b>Green Place</b>     | 1,6360          | 0,51061            | 54,33%            | 18,889  | 0,000              |
| <b>Green Promotion</b> | 1,9920          | 0,53599            | 66,4%             | 13,298  | 0,000              |
| <b>Green People</b>    | 1,9720          | 0,46249            | 65,73%            | 15,717  | 0,000              |
| <b>Green Process</b>   | 1,6120          | 0,50533            | 53,73%            | 19,422  | 0,000              |

|                   |          |        |         |        |        |       |
|-------------------|----------|--------|---------|--------|--------|-------|
| Green<br>Evidence | Physical | 1,6040 | 0,54434 | 53,46% | 18,134 | 0,000 |
|-------------------|----------|--------|---------|--------|--------|-------|

- **Hypothesis 1 (H1):** The application degree of green service element is high in Royal Tulip Hotel. The table shows the degree of apply green service element in the hotel Royal Tulip skikda, where the results are showed that the arithmetic mean is 1,9920 and the standard deviation is 0,50783 ,the table also shows that the application ratio for green service element is medium according to the study sample with percentage of 66,4% where T value calculated was 14,035 with significance level 0,000 which is less than 0,005 and from it we reject the sub-hypothesis and accept the alternative hypothesis saying : the degree of apply green service element in the hotel Royal Tulip skikda is medium .
- **Hypothesis 2 (H2):** The application degree of green price element is high in Royal Tulip Hotel. The table shows the degree of apply price element in the hotel Royal Tulip Skikda, where the results are showed that the arithmetic mean is 1,8920 and the standard deviation is 0,65429 ,the table also shows that the application ratio for price element is medium according to the study sample with percentage of 63,06% where T value calculated was 11,974 with significance level 0,000 which is less than 0,005and from it we reject the sub-hypothesis and accept the alternative hypothesis saying : the degree of apply price element in the hotel Royal Tulip Skikda is medium.
- **Hypothesis 3 (H3):** The application degree of green place element is high in Royal Tulip Hotel. The table shows the degree of apply green place element in the hotel Royal Tulip Skikda, where the results are showed that the arithmetic mean is 1,6360 and the standard deviation is 0,51061,the table also shows that the application ratio for price element is medium according to the study sample with percentage of 54,33% where T value calculated was 18,889 with significance level 0,000 which is less than 0,005 and from it we reject the sub-hypothesis and accept the alternative hypothesis saying : the degree of apply green place element in the hotel Royal Tulip Skikda is medium.
- **Hypothesis 4 (H4):** The application degree of green promotion element is high in Royal Tulip Hotel. The table shows the degree of apply green promotion element in the hotel Royal Tulip skikda, where the results are showed that the arithmetic mean is 1,9920 and the standard deviation is 0,53599,the table also shows that the application ratio for price element is medium according to the study sample with percentage of 66,4% where T value calculated was 13,298 with significance level 0,000 which is less than 0,005 and from it we reject the sub-hypothesis and accept the alternative hypothesis saying : the degree of apply green promotion element in the hotel Royal Tulip Skikda is medium.
- **Hypothesis 5 (H5):** The application degree of green people element is high in Royal Tulip Hotel. The table shows the degree of apply people element in the hotel Royal Tulip skikda, where the results are showed that the arithmetic mean is 1,9720 and the standard deviation is 0,46249,the table also shows that the application ratio for price element is medium according to the study sample with percentage of 65,73% where T value calculated was 15,717 with significance level 0,000 which is less than 0,005 and from it we reject the sub-hypothesis and accept the alternative hypothesis saying : the degree of apply people element in the hotel Royal Tulip Skikda is medium.
- **Hypothesis 6 (H6):** The application degree of green process element is high Royal Tulip Hotel. The table shows the degree of apply process element in the hotel royal tulip skikda, where the results are showed that the arithmetic mean is 1,6120 and the standard deviation is 0,50533,the table also shows that the application ratio for price element is medium according to the study sample with percentage of 53,73% where T value calculated was 19,422 with significance level 0,000 which is less than 0,005 and from it we reject the sub-hypothesis and accept the alternative hypothesis saying : the degree of apply process element in the hotel Royal Tulip Skikda is medium.
- **Hypothesis 7 (H7):** The application degree of green physical evidence element is high in Royal Tulip Hotel. The table shows the degree of apply physical evidence element in the hotel royal

tulip skikda, where the results are showed that the arithmetic mean is 1,6040 and the standard deviation is 0,54434, the table also shows that the application ratio for price element is medium according to the study sample with percentage of 53,46% where T value calculated was 18,134 with significance level 0,000 which is less than 0,005 and from it we reject the sub-hypothesis and accept the alternative hypothesis saying : the degree of apply physical evidence element in the hotel Royal Tulip Skikda is medium.

## **b. Discussion**

The main objective of this study was to find out if Royal Tulip Hotel Skikda applies environmental standards or one of them, through a questionnaire distributed to the hotel employees and includes the elements of the Marketing Mix of services and each element includes environmental standards to see if they are applied or not, this finding is not consistent with the study of Järvensi and Jenny who found that the original Sokos Hotel Villa is already implementing a considerable number of environmentally sustainable practices while in Royal Tulip Hotel we found that environmental practices are partially applied.

The second study of Claudia Ollé Huntado found that benefits from implementing environmental certifications in the Barcelona Princess Hotel are more seen at managerial level than at an operational level while in Royal Tulip Hotel the benefits of implementing environmental certification are not shown neither at the administrative level nor at the operational level these findings were also not consistent with our study.

The third study of Heather A. Price found that environmental behaviors such as recycling and switching off lights when leaving the room are enacted most often and also the results show that guests ranked the following as most important: buying amenities, purchasing organic, and advertise practices on the Hotel website and in public areas, the results showed that consumers do value sustainability while in our study at Royal Tulip Hotel; the hotel doesn't recycle and it advertises other practices not environmental practices on the hotel website and in public areas these findings were also not consistent with our study.

We concluded that in our study we found that the hotel partially applies green service and price as for the green distribution we find there is a partial application where the goods are received by hotel staff at the specific times.

And in the hotel, hotel staff provides information about programs created to increase environmental awareness for hotel guests. And also we find that the hotel doesn't provide the necessary information from the tourist agencies on environmental protection on time and in the right place, as for green promotion it's partially applied, the hotel is promoting environmental services but not very well like : sea trips, natural reserves while the people element we see that the hotel doesn't train staff to raise environmental awareness and we notice in the process the meters are not installed to monitor energy consumption and also for energy saving technology is not installed in the hotel, also it doesn't elaborate an environmental management plan for hotel operations, also the hotel is not implementing a program to reduce water pollution in it and thus the process element is not applied in the hotel.

Concerning physical evidence, it's also not applied where the hotel doesn't have noise control technology in it and doesn't use lighting motion sensor inside and outside the hotel.

And also, we found that the design is not consistent with the building and nature surrounding the hotel. There is no leaflets inside the hotel indicate smoking and non-smoking areas and therefore we reject all the raised hypotheses and we conclude that the hotel applies elements of the Marketing Mix with medium degree; it means that the hotel partially applies the environmental standards compared to the precedent studies.

## 5 Proposed model of green hotel

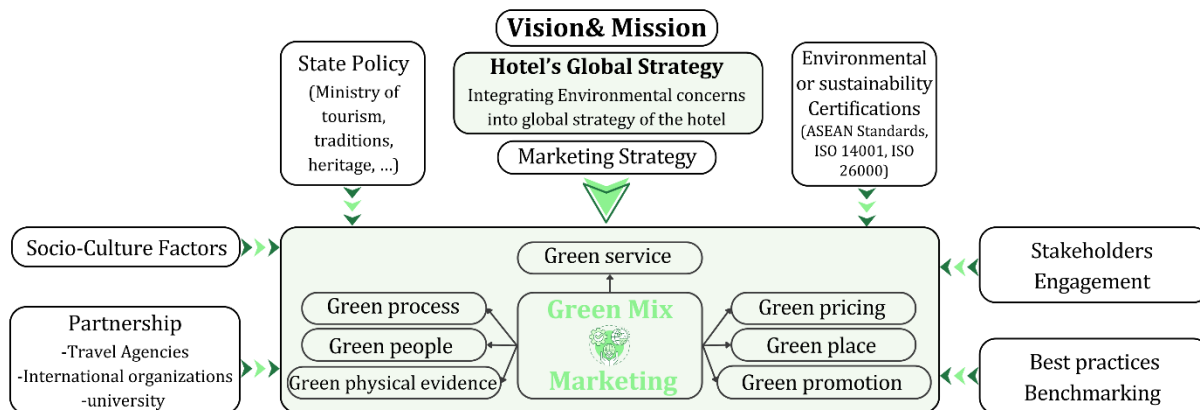


Figure 2: Model of green hotel (Proposed by the Author).

### a. Management Voluntary

- **Vision:** The hotel should envision a leader in unique concepts of “repurposed hotels” designed with environmental considerations that caters to both local and international guests that integrates environmental practices that will influence and positively impact the guests, the host community and society, improving lives today and the future generations. All this by following the Principles of Eco-tourism.
- **Mission:** Even the mission should be modified by being green ,such as : unique Eco Hotel concepts and locations in areas of tourism and potential tourism, to increase sales and profitability, to provide environmental preservation awareness to its guests, and education and opportunities to its host communities, including its landowners, and create an awareness of each one’s role to preserve their home, their Environment, their Culture and their society.
- **Hotel’s Global Strategy:** By integrating the environmental concerns and sustainability principles in the global strategy of the hotel, in order to more concretization the implementation of the concept on the whole of the hotel entities.
- **Marketing strategy:** The global strategy is cascading from the top to bottom, so it touches marketing strategy by greening its strategy and operations.

### b. Greening the Marketing Mix

#### 1. Green service: provides

- Lodging and psychological comfort of the rooms;
- Offer organic food;
- Providing spa.

#### 2. Green pricing

- Setting special prices for environmental products and services (you pay extra for green products);
- Purchase energy saving equipment like: solar panels;
- Purchase less dangerous materials.

#### 3. Green place

- Accessibility of Hotels location;
- Travel agencies should provide necessary information about environment protection on time and in the right place.

#### 4. Green promotion

- Makes advertisement through various media about programs on environment protection to raise awareness of the local community;

- Make promotion to environmental services like sea trips natural reserves;
- Sets awareness programs to protect the environment via website and social network.

#### **5. Green people**

- Offers training for staff to raise environmental awareness;
- Encourage the involvement of guests in saving water and energy;
- Encourage suppliers to provide local and environmentally friendly supplies.

#### **6. Green process**

- Elaborate an environmental management plan for Hotel operations;
- Install meters to monitor energy consumption;
- Implement program to reduce water pollution in hotel;
- Establishing and using of energy saving technologies and techniques in hotel.

#### **7. Green physical evidence**

- The design of hotel must be consistent with the building and nature surrounding;
- Provide leaflets inside the hotel indicate smoking and non-smoking areas;
- Using the lights motion sensor inside and outside the hotel.

### **c. Support elements**

#### **1. State policy**

The state has a role to play in this area by setting legislative framework appropriate to environmental practices, the role of state here is to encourage and subvent the privates to build green hotels. The state also may give more deployment to sustainability by the work of its agencies (Ministry of Tourism, Traditions, Culture, Heritage...etc.).

#### **2. Stakeholders Engagement**

- Create a civilized awareness;
- Implementing of control programs against pollution problems through the role of family and school in awareness and environmental education.

#### **3. Partnership**

- Travel agencies: establishment of culture and environmental practices, advertise environment services to attract customers;
- International organization: obtaining funding from international organizations to support the implementation of programs related to preserving the environment, exchanging knowledge, information and experiences of advanced technology.
- University: provides necessary human resources and consulting.

#### **4. Best practices (Benchmarking)**

- Best practices of hotels' experiences in the field of sustainability;
- Make benchmarking to green hotels by preserving the characteristics of the hotel and of course according to available resources

#### **5. Socio culture Factors**

- Create awareness among customers about environmental issues;
- Increased number of events in the hotel;
- Provide local services in the hotel.

#### **6. Environmental certification**

Any hotel should seek to adopt environmental and sustainability certifications such as (ASEAN

standards, ISO 14001, ISO 26000...).

## 6 Conclusions

The hotel sector affects directly to the environment so the managers of the hotel industry in the world realize the importance of green practices towards the environment, and Algeria is lacking green hotel compared to developed countries, and going to green hotels has become an inevitable necessity to protect the environment from pollution.

Environmental friendly practices in hotel aim to reduce environmental impacts, so this type of hotel must be designed according to the conditions of environmental standards and enhancing environmental awareness among decision makers and employees in hotel sector to apply environmental practices in hotels.

according to the study it was shows that there is a partial application of environmental standards in the hotel Royal Tulip Skikda and the hotel must observe these standards in order to become a green hotel.

Through the study I was able to answer the problematic, and I noticed that the hotel applies partially the environmental standards and the most important results of this study is:

- The green service element is partially applied in Royal Tulip Hotel.
- The green price element is partially applied in Royal Tulip Hotel.
- The green place element is not applicable in Royal Tulip Hotel.
- The green promotion element is partially applied in Royal Tulip Hotel.
- The green people element is partially applied in Royal Tulip Hotel.
- The green process element is not applicable in Royal Tulip Hotel.
- The green physical evidence element is partially applied in Royal Tulip Hotel.
- The hotel doesn't provide the necessary information from the tourist agencies about environmental protection on time and in the right place.
- The hotel doesn't train staff to raise environmental awareness.
- The meters in hotel are not installed to monitor energy consumption and also the hotel is not implementing program to reduce water pollution in the hotel.
- The hotel has no noise control technology.

When we studing a topic towards setting a green Hotel Model from a Marketing standpoint in Royal Tulip Skikda we suggest the following recommendations:

- Using environmentally friendly building materials in the Hotel Royal Tulip Skikda.
- Raising awareness about the importance of green practices towards the environment.
- Create an incentive program to encourage hotel staff to participate in and improve upon environmentally-friendly practices.
- Educate hotel staff to turn off lights and turn down heating /air conditioning in unoccupied rooms or employee-only areas.
- Install a renewable energy system onsite.
- Install a meters to monitor energy consumption in Royal Tulip Hotel.
- Provide recycling bins in hotel both in public areas, in the kitchen, and in the back office to make recycling as easy as possible.
- Train kitchen employees to turn off ventilation hoods when the cooking appliances are off.
- Plant an organic garden to provide fresh produce for the guests.
- Take steps to reduce food waste.

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