

# What Makes More Positive Thinking and Implementation towards Green and Environment Sustainable Practices: an Observation among Selected Star Hotels from Chennai using Multiple Regression Model

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*Abstract: Green and energy saving practices are in the increasing trend in order to preserve the natural environment and to meet the expectations and desires of green consumers. The purpose of this study is to assess the role of independent factors on adoption and implementation of environmental sustainability practices in the star hotels of Chennai city. Data was collected from participants representing different hotels from Chennai city. The questionnaire is prepared by using standard questions taken from review of literature. The sample is restricted to star hotels only. The results indicated that the factors making the hotels to think towards green and environment sustainable practices are savings and benefits observed in the adoption and implementation of energy efficiency, water efficiency, and reduction in the usage of toxic chemicals, purchases, lighting and landscape management of a hotel. This study clearly indicates that the active participation of hotels in the green and environment sustainability practices can further help in cost cutting and improving the return on investment in the years to come.*

**Keywords:** Energy efficiency – water management- Cleaning- Consumables-Savings.

## I. INTRODUCTION

Environmental sustainability is the prime focused areas of twentieth century among the developed countries and developing countries in the world due to the benefits perceived and the savings in the form of cost cutting and recycling of water and other consumables in the hotels. The role of usage of renewable energy and nontoxic products and consumables are insisted among the hotels to improve the green consumerism and environmental protection along with the improved level of return on investment. The wastage coming out of hotels are mounting as huge dump requires cleaning and clearing. This involves lot of money, time and resources. If the waste control is effectively implemented, a huge savings can be obtained. This leads to think about the green and environmental practices adoption and implementation among the hotels where huge amount of tourist population is floating throughout the year and high level of hygiene and life style products are used to satisfy the customers. The process of cleaning, preparation of food, lighting, pest control and other ancillary services creates lot of damage to the environment. This has pressured the need for identification of green and environment sustainability practices of hotels and to implement the same for the environment protection.

### 1.2 Objective of the study

The purpose of this study was to assess the factors of implementation and positive thinking towards green and environmental sustainability practices in the hotel in Chennai city.

## II. RESEARCH METHODOLOGY

The current study is descriptive in nature. The study is conducted among the selected three star and five star hotels in Chennai city. The sample respondents are the executives working in different departments in the sample hotels and involving in the green and sustainable practices implementation in the hotel. The one observation is the level of awareness exists among the employees but the degree of adoption and implementation depends on the support and attitude of the management. The big savings may come next, what initial costs are matters to the management. This attitude is dragging the hotels from the implementation of green and sustainable practices in an effective manner. For the purpose of sample survey, a structured questionnaire is designed and tested through pilot study and the reliability alpha is found at 0.898. The sample size is fixed at 600 by considering the qualitative data lapses. But the large quantity (850) of questionnaires are distributed to respondents and collected through physical visit during Jan-June 2018. On physical verification, it is found that, there are 623 questionnaires as fully filled and error free. And the same is used for analysis. The analysis is done by using the SPSS statistical package version 29.2. The appropriate statistical tests are selected based on the nature of data.

## III. DATA ANALYSIS AND DISCUSSION

Regression-I: Role of Commitment to Environmental Practices, Recycling and Reuse Practices, Energy Efficiency and Conservation Practices, Lighting, Water Efficiency and Conservation, Landscape, Pest Management, Hazardous and Toxic Substances, Transportation Purchasing on the perceived benefits of green energy and sustainable practices in hotel industry.

Independent variables used are: the degree of implementation of

Commitment to Environmental Practices (X1)

Recycling and Reuse Practices(X2)

Energy Efficiency and Conservation Practices (X3)

Lighting (X4)

Water Efficiency and Conservation (X5)



|                                     |            |      |      |      |       |
|-------------------------------------|------------|------|------|------|-------|
| Landscape (X6)                      | Purchasing | .304 | .041 | .264 | 7.333 |
| Pest Management (X7)                |            | .000 |      |      |       |
| Hazardous and Toxic Substances (X8) |            |      |      |      |       |
| Transportation (X9)                 |            |      |      |      |       |
| Purchasing (X10)                    |            |      |      |      |       |

Dependent variable: Overall Perceived Benefits of Green energy and sustainable practices

|                  |            |
|------------------|------------|
| Multiple R value | : 0.743    |
| R Square value   | : 0.552    |
| F value          | : 75.403   |
| P value          | : <0.001** |

The numerous connection coefficient is 0.743 estimates the level of connection between the real qualities and the anticipated estimations of the advantages of Green and vitality sparing Practices in lodgings. Since the anticipated qualities are gotten as a direct mix of Environmental Practices (X1), Recycling and Reuse Practices(X2), Energy Efficiency and Conservation Practices(X3), Lighting(X4), Water Efficiency and Conservation(X5), Landscape management(X6), Pest Management(X7), Hazardous and Toxic Substances(X8), Transportation(X9) and Purchasing practices(X10), the coefficient estimation of 0.742 demonstrates that the connection between saw advantages of Green and vitality sparing Practices and the ten free factors is very solid and positive.

The Coefficient of Determination R-square measures the integrity of attack of the evaluated Sample Regression Plane (SRP) as far as the extent of the variety in the needy factors clarified by the fitted example relapse condition. In this manner, the estimation of R square is 0.553 basically implies that about 55% of the variety in saw advantages of Green and vitality sparing Practices is clarified by the evaluated SRP that utilizations Environmental Practices (X1), Recycling and Reuse Practices(X2), Energy Efficiency and Conservation Practices(X3), Lighting(X4), Water Efficiency and Conservation(X5), Landscape management(X6), Pest Management(X7), Hazardous and Toxic Substances(X8),

Table 1: Coefficients (a) of factors on green practices

|   |  | Unstandardized Coefficients |         |         | Coefficients |
|---|--|-----------------------------|---------|---------|--------------|
|   |  | Standardized Coefficients   | T value | P value |              |
|   |  |                             |         |         | B            |
|   |  | Std. Error                  | Beta    |         |              |
| 1 | (Constant)                                   | 5.467                       | 2.127   | 2.571   |              |
|   | .010   |                             |         |         |              |
|   | Commitment to Environmental Practices        |                             | .028    |         |              |
|   | .101   | .009                        | .272    | .786    |              |
|   | Recycling and Reuse Practices                |                             | .118    | .042    |              |
|   | .120   | 2.808                       | .005**  |         |              |
|   | Energy Efficiency and Conservation Practices |                             |         |         |              |
|   | .733   | .050                        | .517    | 14.700  | .000         |
|   | Lighting                                     | .195                        | .076    | .096    | 2.552        |
|   | Water Efficiency and Conservation            |                             | .351    | .071    |              |
|   | .214   | 4.920                       | .000    |         |              |
|   | Landscape                                    |                             | .148    | .074    | .080         |
|   | .047   |                             |         |         | 1.989        |
|   | Pest Management                              | .081                        | .070    | .046    | 1.165        |
|   | .245   |                             |         |         |              |
|   | Hazardous and Toxic Substances               |                             | .207    | .062    |              |
|   | .139   | 3.340                       | .001    |         |              |
|   | Transportation                               |                             | .151    | .080    | .073         |
|   | .060   |                             |         |         | 1.886        |

a Dependent Variable: Overall Perceived Benefits of GESP Here the coefficient of X1 is 0.028 speaks to the ostensible dimension of impact of natural practices on apparent advantages of Green and vitality sparing Practices in inns in the example territory, by holding different factors as steady. The evaluated positive sign suggests that such impact is certain that apparent advantages of Green and vitality sparing Practices in inns would increment by 0.028 for each unit increment in natural Practices and this coefficient worth isn't noteworthy at 5% level. Here the coefficient of X2 is 0.118 speaks to the huge dimension of impact of reuse and reuse rehearses on apparent advantages of Green and vitality sparing Practices in inns in the example region, by holding different factors as steady. The assessed positive sign infers that such impact is certain that apparent advantages of Green and vitality sparing Practices in lodgings would increment by 0.118 for each unit increment in reuse and reuse exercises and this coefficient worth is exceedingly noteworthy at 1% level.

Here the coefficient of X3 is 0.733 speaks to the exceptionally impressive dimension of impact of Energy Efficiency and Conservation Practices(X3) on saw advantages of Green and vitality sparing Practices in inns in the example territory, by holding different factors as consistent. The evaluated positive sign suggests that such impact is certain that apparent advantages of Green and vitality sparing Practices in lodgings would increment by 0.688 for each unit increment in Energy Efficiency and Conservation Practices(X3) and this coefficient worth is noteworthy at 1% level. Here the coefficient of X4 is 0.195 speaks to the ostensible dimension of impact of lighting on apparent advantages of Green and vitality sparing Practices in inns in the example region, by holding different factors as consistent. The assessed positive sign infers that such impact is certain that apparent advantages of Green and vitality sparing Practices in lodgings would increment by 0.195 for each unit increment in lighting and this coefficient worth is huge at 5 % dimension.

Here the coefficient of X5 is 0.351 speaks to the significant dimension of impact of Water Efficiency and Conservation(X5)on saw advantages of Green and vitality sparing Practices in inns in the example territory, by holding different factors as consistent. The assessed positive sign suggests that such impact is sure that apparent advantages of Green and vitality sparing Practices in lodgings would increment by 0.351 for each unit increment in Water Efficiency and Conservation(X5) and this coefficient worth is profoundly critical at 1 % level. Here the coefficient of X6 is 0.148 speaks to the ostensible dimension of impact of Landscape management(X6)on saw advantages of Green and vitality sparing Practices in inns in the example zone, by holding different factors as consistent. The evaluated positive sign suggests that such impact is sure that apparent advantages of Green and vitality sparing Practices in lodgings would increment by 0.148 for each unit increment in Landscape management(X6) and this coefficient worth is noteworthy at 5 % dimension.



Here the coefficient of X7 is 0.081 speaks to the ostensible dimension of impact of Pest Management(X7)on execution of Green and vitality sparing Practices in lodgings in the example territory, by holding different factors as steady. The evaluated positive sign infers that such impact is sure that execution of Green and vitality sparing Practices in inns would increment by 0.081 for each unit increment in Pest Management(X7) and this coefficient worth isn't critical at 5 % level. Here the coefficient of X8 is 0.207 speaks to the impressive dimension of impact of Hazardous and Toxic Substances(X8)on saw advantages of Green and vitality sparing Practices in lodgings in the example region, by holding different factors as steady. The evaluated positive sign infers that such impact is certain that apparent advantages of Green and vitality sparing Practices in lodgings would increment by 0.207 for each unit increment in Hazardous and Toxic Substances(X8) and this coefficient worth is very noteworthy at 1 % dimension.

Here the coefficient of X9 is 0.151 represents the average level of effect of Transportation(X9)on perceived benefits of Green and energy saving Practices in hotels in the sample area, by holding the other variables as constant. The estimated positive sign implies that such effect is positive that perceived benefits of Green and energy saving Practices in hotels would increase by 0.151 for every unit increase in Transportation(X9) and this coefficient value is significant at 5 % level. Here the coefficient of X10 is 0.304 represents the considerable level of effect of Purchasing practices(X10)on perceived benefits of Green and energy saving Practices in hotels in the sample area, by holding the other variables as constant. The estimated positive sign implies that such effect is positive that perceived benefits of Green and energy saving Practices in hotels would increase by 0.304 for every unit increase in purchasing practices(X10) and this coefficient value is highly significant at 1 % level.

**Regression-II:** Impact of awareness, adoption and implementation on the perceived benefits of green energy and sustainable practices of hotels in the sample.

The variables used in the study are:

Independent variables are:            1. Overall awareness  
     2. Overall adoption  
     3. Overall implementation of green and energy saving practices

Dependent variable:                  1. Perceived benefits of green and energy saving practices

|                  |            |
|------------------|------------|
| Multiple R value | : 0.681    |
| R Square value   | : 0.461    |
| F value          | : 178.819  |
| P value          | : <0.001** |

The different connection coefficient is 0.681 estimates the level of connection between the real qualities and the anticipated estimations of the advantages of Green and vitality sparing Practices in lodgings. Since the anticipated qualities are gotten as a straight blend of in general mindfulness (X1), in general appropriation (X2), and by and large execution of green and vitality sparing practices in the lodgings (X3), the coefficient estimation of 0.681 demonstrates that the connection between saw advantages of Green and vitality sparing Practices and the three autonomous factors is very solid and positive.

The Coefficient of Determination-square estimates the integrity of-attack of the assessed Sample Regression Plane (SRP) as far as the extent of the variety in the needy factors

clarified by the fitted example relapse condition. Consequently, the estimation of R square is 0.461 just implies that about 46% of the variety in saw advantages of Green and vitality sparing Practices is clarified by the evaluated SRP that utilizations generally mindfulness (X1), by and large appropriation (X2), and in general usage of green and vitality sparing practices in the inns (X3), as the autonomous factors and R square worth is noteworthy at 1 % dimension.

Table-2: Coefficients (a) of benefits of green practices

|   |                                | Unstandardized |            | Coefficients |         |
|---|--------------------------------|----------------|------------|--------------|---------|
|   |                                | Standardized   |            | T value      | P value |
|   |                                | B              | Std. Error |              |         |
| 1 | (Constant)                     | 1.962          | 2.228      |              | .881    |
|   | .379                           |                |            |              |         |
|   | Overall Awareness on GESP      |                |            | 0.393        | .035    |
|   | .477                           | 11.121         | 0.001**    |              |         |
|   | Overall Adoption of GESP       |                |            | 0.021        | .010    |
|   | .094                           | 2.101          | 0.036*     |              |         |
|   | Overall Implementation of GESP |                |            | 0.193        | .037    |
|   | .197                           | 5.256          | 0.001**    |              |         |

A Dependent Variable: Overall Perceived Benefits of GESP

Here the coefficient of X1 is 0.393 represents the considerable level of effect of awareness on perceived benefits of Green and energy saving Practices in hotels in the sample area, by holding the other variables as constant. The estimated positive sign implies that such effect is positive that perceived benefits of Green and energy saving Practices in hotels would increase by 0.393 for every unit increase in awareness and this coefficient value is highly significant at 1% level.

Here the coefficient of X2 is 0.021 represents the nominal level of effect of adoption on perceived benefits of Green and energy saving Practices in hotels in the sample area, by holding the other variables as constant. The estimated positive sign implies that such effect is positive that perceived benefits of Green and energy saving Practices in hotels would increase by 0.021 for every unit increase in adoption and this coefficient value is significant at 5% level.

Here the coefficient of X3 is 0.193 represents the considerable level of effect of implementation of green practices on perceived benefits of Green and energy saving Practices in hotels in the sample area, by holding the other variables as constant. The estimated positive sign implies that such effect is positive that perceived benefits of Green and energy saving Practices in hotels would increase by 0.193 for every unit increase in implementation of green practices and this coefficient value is highly significant at 1% level.

#### IV. SUMMARY AND CONCLUSION

The factors making the hotels to think towards green and environment sustainable practices are savings and benefits observed in the adoption and implementation of energy efficiency, water efficiency, and reduction in the usage of toxic chemicals, purchases, lighting and landscape management of a hotel.



Hence, the hotels are highly benefited through green and environmental practices in the long run by saving consumables and natural resources like water and energy. The alternative sources of consumables and energy usage can help in doing this. Hence, the star hotels show interest towards green practices adoption and implementation. It is also observed from the analysis that the awareness and implementation of the green practices makes the industry and management to think positive and to take steps towards practicing green practices in the hotel industry. Hence, creating awareness and implementation of green and environmental sustainable practices in a phased manner can help in reaching the sustainable position along with savings in cost and attracted rate of return on investment. This can help the industry to grow in a sustainable manner in the years to come.

## **REFERENCES**

1. Bader, E.E. (2005). Manageable inn strategic approaches. *Diary of Retail and Leisure Property*, 5(1), 70-77. doi: 10.1057/palgrave.rlp.5090008
2. Bohdanowicz, P. (2005). European hoteliers' natural demeanors: Greening the business. *Cornell Hotel and Restaurant Administration Quarterly*, 46, 188-204. doi:10.1177/0010880404273891
3. Butler, J. (2008). The convincing hard case for green lodging improvement. *Cornell Hospitality Quarterly*, 49(3), 234-244. doi:10.1177/1938965508322174
4. Cognition/observation. (2013). Recovered from McMaster University, Department of Psychology, Neuroscience and Behavior site: <http://www.science.mcmaster.ca/pnb/look into/insight perception.html>
5. Dickson, C. (2010). Advancing manageable occasion practice: The job of expert affiliations. *Global Journal of Hospitality Management*, 29(2), 236-244. doi:10.1016/j.ijhm.2009.10.013
6. Eagly, A.H., & Chaiken, S. (2007). The upsides of a comprehensive meaning of frame of mind. *Social Cognition*, 25(5), 582-602. Recovered from <http://www.guilfordjournals.com>
7. Friedman, T. (2008). Hot, level, and swarmed: Why we need a green unrest – and how it can restore America. New York: Farrar, Straus, and Giroux Books.
8. History of supportability: Creation of EPA and NEPA. (2013). Recovered from the U.S. Natural Protection Agency site: <http://yosemite.epa.gov>
9. Kang, K.H., Stein, L., Heo, C.Y., and Lee, S. (2012). Buyers' eagerness to pay for green activities of the lodging business. *Worldwide Journal of Hospitality Management*, 31, 564-572. doi:10.1016/j.ijhm.2011.08.001
10. Levy, S.E. and Park, S-Y. (2011). An investigation of CSR exercises in the hotel business. *Diary of Hospitality and Tourism Management*, 18, 147-154. doi:10.1375/jhtm.18.1.147