

Branded Housekeeping Chemicals Posturing Towards Eco Friendly Practices in Hospitality Industry

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ABSTRACT

Branded housekeeping chemicals play a pivotal role in grabbing attention of users towards environmental preservation and prevents users from illness like inflammation of lungs, bronchitis etc during their service and operations. The study helps to find out the positive and negative effects of branded housekeeping chemicals as compared to their unbranded counterparts, which in turn helps us to gain the economic sustenance in hospitality sector by employing eco friendly practices & products. The main attempt of this paper is to find out the marketing strategies for the marketing of branded chemicals in order to gain the momentum in service marketing. In this paper the researcher collected the data from the hotels and destination management organizations of Jammu and Kashmir. The analysis part includes descriptive analysis (mean, standard deviation) and factor analysis. The purpose of this study is to know about the role of branded chemicals towards eco friendly practices and economic sustenance. After the analysis of data it was found that branded housekeeping chemicals definitely lead positive role towards economic sustenance and environmental preservation by knowing that branded chemical usage in housekeeping operations is less as compared to unbranded ones. In addition to this it was found that there is fewer efforts (energy) required for their application in operations. In the light of these facts it makes a mark in economic sustenance and environment preservation

Keywords: *Branding, Housekeeping Chemicals, Environment preservation, Economic Sustenance*

Introduction

Housekeeping is a department of hospitality sector found in hotels, hospitals and welfare institutions for upkeep, hygiene and sanitation. The standardization and specifications in terms of branded housekeeping chemicals play an important role in the reputation of the hotels. One feels comfortable only in the environment which is clean and well ordered, so cleanliness is important for health foremost also for well being (.....Importance of Housekeeping). In order to maintain the hygiene and sanitation there is an active involvement of cleaning agents, equipments and technical brigade. All these three aspects depends upon time and energy, which in turn depends upon the brand of cleaning agent used, as brand defines the quality of the cleaning agent and saves time and energy. There are number of cleaning agents used in housekeeping at different institutions and different chemicals are applied on

different surfaces as the composition of chemicals for different surfaces vary within each other. Same chemicals used on wooden flooring cannot be applied on the marble flooring because the compositions of marble and wooden flooring are not same. Same happens with the type of dirt, as the dirt on WC is not same as on bath tub. Selection and application of cleaning agents also depends upon the type of dirt and its intensity. The cleaning agents of higher quality i.e. branded, helps to save energy and time by having their effective action on surfaces as there are cleaning agents in the hotels, hospitals that cause environmental deterioration when they are squeezed in the form of Sullage. But this does not happen with the eco friendly branded chemicals as the manufacturing company takes care of environment from its base development. Nik Abdul Rashid (2009) defined green purchase intention as the probability and willingness of an individual to give preference to green product over conventional products in their purchase considerations. Branded cleaning agents and their impact towards economic sustenance is also of a prime importance. It has been seen that the branded eco friendly chemicals help to generate the economy for the hospitality institutions where in it is used. As the usage in case of branded eco friendly chemicals is less and it requires less time to get applied. In addition to this the time is saved, quality of standards are met which in turn helps to finish other works by the same brigade, within the same shift, that results towards the economic sustenance of the hospitality institutions, may it be hotel, hostel, hospital or educational institutions (welfare) by saving more on chemical costs, training and recruitment of employees.

Review of Literature

Various household cleaning products have been developed to facilitate the removal of dust and dirt, for surface maintenance, and for disinfection. (Reisz, GR., Gammon, RS. 1986) Products are available in powder, liquid or spray form. The basic ingredients determine the type of cleaning tasks for which they are suitable. Some are packaged as general purpose cleaning materials whilst others are targeted at specific cleaning tasks such as drain clearing, oven cleaning, lime scale removal and polishing furniture. Household cleaning products provide aesthetic and hygiene benefits but are also associated with health risks for the users, and building occupants. (Burton, A 2007) The US Department of Health and Human Services offers the public access to the Household Products Database. This database provides consumer information for over 4,000 products based on information provided by the manufacturer through the material safety data sheet.

Surfactants lower the surface tension of water, making it able to flow into smaller tiny cracks and crevices in soils making removal easier. Alkaline chemicals break down known soils such as grease and mud. Acids break down soils such as

lime scale, soap scum, and stains of mustard, coffee, tea, and alcoholic beverages. Some solvent-based products are flammable and some can dissolve paint and varnish. Disinfectants stop smell and stains caused by bacteria. When multiple chemicals are applied to the same surface without full removal of the earlier substance, the chemicals may interact. This interaction may result in a reduction of the efficiency of the chemicals applied (such as a change in pH value caused by mixing alkalis and acids) and in cases may even emit toxic fumes. An example of this is the mixing of ammonia-based cleaners (or acid-based cleaners) and bleach. (Raizenne M., Dales R., Burnett, R 1998) This causes the production of chloramines that volatilize (become gaseous) causing acute inflammation of the lungs (toxic pneumonitis), long-term respiratory damage, and potential death. (Zock, JP. Plana, E., Jarvis D. et al. 2007)

Employees involved in cleaning are often exposed to a variety of chemicals. Wearing correct personal protective equipment, use of proper strength solutions, and good personal hygiene can minimize the hazards. Problems, when they do occur, are often the result of failure to follow simple precautions. Many of the following suggestions require nothing more than following label directions. Employees need to be trained in the proper precautions when handling housekeeping chemicals. Monitoring work practices and periodic review of procedures by supervisory personnel will help ensure they are being followed.

Regarding human health, green-certified cleaning products have the following characteristics: low toxicity, they do not bio-accumulate, they are not carcinogenic, they do not contain chemicals associated with harm to the reproductive system, they are not corrosive to skin or eyes and they do not cause allergic contact dermatitis. They have a high flashpoint. Also, they are beneath the threshold for VOCs, meaning that they do not off-gas beyond the recommended level.

There has been a rising concern on environmental issues worldwide. Today's consumers have started to realize that their purchasing behavior actually can cause a huge impact to the environment. (Laroche, M., 2010) Therefore, being socially responsible by offering environmentally friendly products and services should be a practice of any companies who wish to sustain a competitive advantage in the business world (Wahid, N.A. Rahbar, E. & Shyan, T.S., 2011)

The emergence of green consumers began in the 1990s – the so-called green decade when environmentalism first began to mushroom worldwide (Kirkpatrick, 1990). Consumers are becoming increasingly concerned about environmental issues, such as global warming, ozone depletion and habitat destruction. Many individuals now realize that their purchasing decisions directly influence the environment (Luzar, J.E., Diagne, A., Gan, C., and Henning, B.R. 1995). The most convincing indicator of consumer activation with regard to green management is

the growing number of people who are willing to purchase environmentally friendly products. Same happens here with the purchase of housekeeping chemicals as it has been seen that branded ones shed less effect on environment than their unbranded counterparts, which in turn helps to generate maximum revenue at lower costs and it gets proved that branded chemicals lead hotel towards economic sustenance by reducing the cost of human resource, training, quantity of chemical used and time.

Objectives

1. To suggest a chemical; for housekeeping cleaning agent as a tool towards eco-friendly practices.
2. To study about the positive and negative impacts of branded cleaning agents in environmental preservation.
3. To analyze the effect of branded housekeeping cleaning agents towards economic sustenance.

Scope of the Study

This study is conducted at the hotels, hospitals and welfare institutions of Jammu and Srinagar districts of J&K, in order to carve out a branded chemical having positive effect on environment and which would in turn lead economic sustenance for the industry. This paper is helpful tool for industry practitioners, researchers and academics as it does not involve only eco friendly practices but also the economic aspects of hospitality industry.

Research Methodology

Sampling

The sampling of this research paper took place in hotels, hospitals, educational institutions in order to find out the usage of branded housekeeping cleaning agents. The sample size of 200 sample was taken from above institutions in the month march 2013. This sample size was calculated with the help of formula given by Krejcie & Morgan, 1970.

Research Instrument

The self structured questionnaire on the basis of three aspects like branded housekeeping chemicals, environmental preservation and brand value in terms of economy was formulated after applying the 5-Point Likert's Scale instrument. While as secondary data was collected from published journals, books and articles.

Research tools

In order to go for the descriptive analysis, the mean, standard deviation was applied. In addition to this the factor analysis is implemented to find out the factors there loading, Eigen value and to carve out the factors on the basis of variable correlation matrix.

Data Analysis & Results:

A preliminary analysis of the data reveals that the sample is composed of about 200 hotels from Jammu and Kashmir regions of J&K state comprising of 100 each. In this sample it was found that 26% chemicals are purchased from Johnson Diversey (Branded Product) and 26% from the Rickett Benckiser while as rest 48% are purchased from others (Non branded). In order to clarify the effect of branded housekeeping chemicals on brand value, environmental preservation that leads to economic sustenance, the descriptive analysis is applied i.e. mean value and standard deviation which signifies the variance of the data and helps to understand the effect of branded housekeeping chemicals in enhancing brand value (F1) of organisation and environmental preservation (F2) which in turn helps to gain economic sustenance. The mean value and standard deviation itself clears the above statement, as the mean value and standard deviation for the brand value (F1) factor is 4.15 and 0.06. Same is the case with the F2 environmental preservation i.e. 4.15 and 0.67 respectively as discussed in Table 2.

Table 1

S.No.	Statements	Mean	Standard Deviation
1	Do you believe that branded cleaning agents helps in preserving environment	3.9	1.67
2	The branded cleaning agents add to the brand value of organization	4.48	0.91
3	The branded housekeeping chemicals provide safety & security to the employees who use them	4.25	1.26
4	Do you believe that branded Chemicals require less time and energy in their application	4.49	0.91
5	The branded housekeeping chemicals helps to maintain the standard of hygiene	4.53	0.90
6	Over usage and under usage leads to negative effects on surfaces	4.48	0.69
7	Branded cleaning agents need branded equipment for use	4.15	0.99
8	For using branded cleaning agents the employees need high level to training	Extracted in Factor Analysis	
9	Branded chemicals require branded additives as their thinners	4.15	0.91
10	The utilization quantity of cleaning agents is less in case of branded cleaning agents as compared to unbranded products	Extracted in Factor Analysis	
11	Branded cleaning agents are expensive	4.72	0.58

Table 2

No.	Factor	Mean	Standard Deviation
F 1	Brand Value	4.15	0.06
F 2	Environment Preservation	4.15	0.37

Factor Analysis of Data

Factor analysis: Factor analysis which is one type of multivariate analysis is used to define the underlying structure called factors among the variables in the analysis. For the purpose of this study, factor analysis was used in 11 variables of present study. The result of initial (first run of) factor analysis on eleven independent variables showed KMO was 0.815 and significance level of Bartlett's test of sphericity was 0.00. In addition to this, the rotated factor matrix showed that all the 11 statement/Variables about housekeeping chemicals brands, their role in brand management, environment preservation, efficiency of chemicals and so on were adequate and out of 11 variables only 9 variables were resembling or correlating with the branded housekeeping chemicals in terms of environmental preservation and brand value and two variables were extracted. This was considered satisfactory as it fulfilled the criteria of KMO >0.5 (meaned factor analysis was suitable to be used for this data analysis) and significance <0.05 (which indicated sufficient correlations existed among the variables to proceed for factor analysis. (Hair et al 2007).

Factor analysis on Environmental Preservation and Brand Value: The factor analysis on 11 items measuring effect of branded housekeeping chemicals on the environmental preservation and economic sustenance was carried out using Varimax rotation with Kaiser normalization and principal component analysis. These 11 items were initially grouped under two different components.

Total variance explained was 46.97% with KMO's value 0.815. Barlett's test of sphericity was significant ($p < 0.01$). The range of loading for each of the loaded items was from 0.38-0.71. Two items were omitted. Factor loading 1 and 2 were renamed by researchers as specific Brand Value and Environment Preservation, representatively. The factor analysis on nine items measuring economic sustenance and branded housekeeping chemicals were grouped under two different components i.e. brand value and environmental preservation.

Total Variance Explained

Component	Initial Eigen Value			Extraction Sum of Squared Loading			Rotation Sum of Squared Loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.227	46.971	46.971	4.227	46.971	46.971	3.499	38.883	38.883
2	1.067	11.855	58.826	1.067	11.855	58.826	1.795	19.943	58.826
3	0.998	11.087	69.913						
4	0.760	8.447	78.360						
5	0.608	6.759	85.119						
6	0.493	5.474	90.592						
7	0.346	3.850	94.442						
8	0.320	3.560	98.002						
9	0.180	1.998	100.00						

Extraction Method: Principle Component Analysis**Communalities**

	Initial	Extraction
Eco Friendly Products	1.000	.713
Organizational Usage	1.000	.558
Safety and security	1.000	.734
Time consumption	1.000	.628
Hygiene	1.000	.705
Negative effects	1.000	.555
Branded Equipment	1.000	.421
Branded Additives	1.000	.600
Socio Economy	1.000	.380

S. No.	Statements	Component	
1	Do you believe that branded cleaning agents helps in preserving environment	.709	-.459
2	The branded cleaning agents add to the brand value of organization	.743	.072

S. No.	Statements	Component	
3	The branded housekeeping chemicals provide safety & security to the employees who use them	.829	-.217
4	Do you believe that branded Chemicals require less time and energy in their application	.789	-.079
5	The branded housekeeping chemicals helps to maintain the standard of hygiene	.825	-.157
6	Over usage and under usage leads to negative effects on surfaces	.423	.614
7	Branded cleaning agents need branded equipment for use	.606	.232
8	Branded chemicals require branded additives as their thinners	.516	.578
9	Branded cleaning agents are expensive	.610	-.089

Extraction Method: Principle Factor Analysis

2 Components Extracted

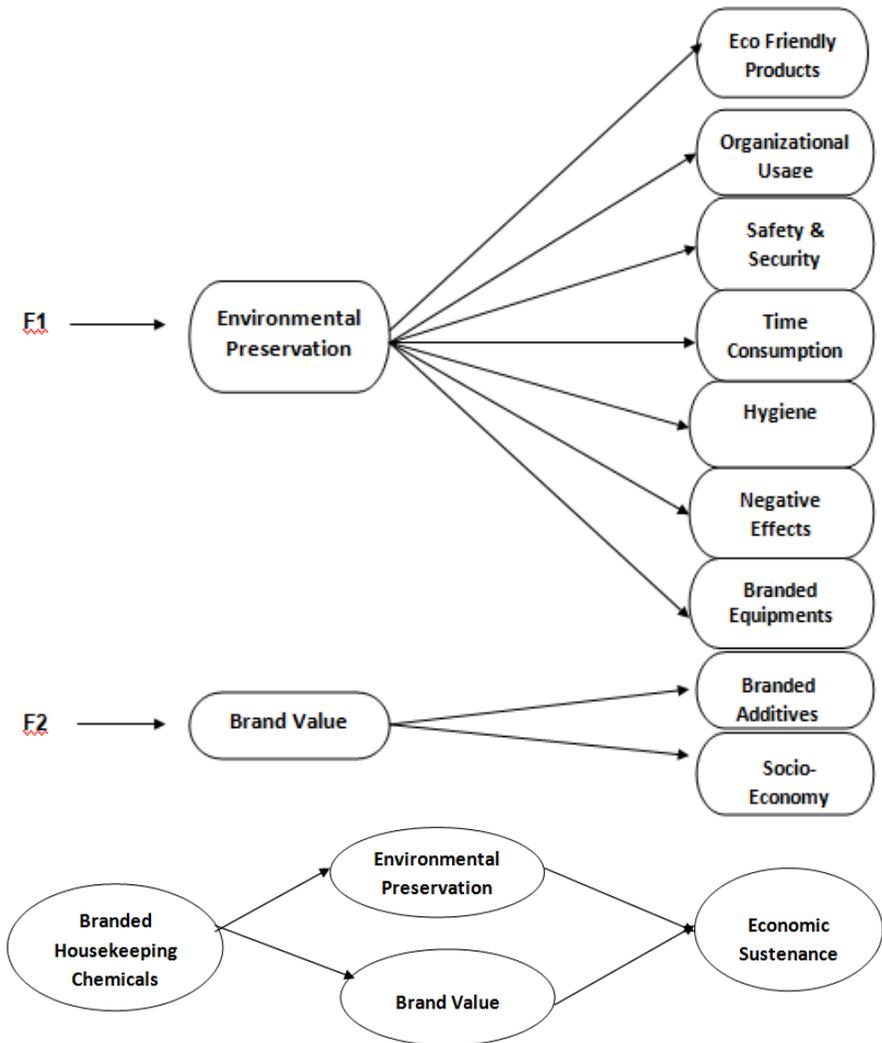
Component Score Coefficient Matrix

	Component	
	1	2
Eco Friendly Products	.354	-.297
Organizational Usage	.122	.143
Safety and security	.270	-.085
Time consumption	.199	.025
Hygiene	.242	-.036
Negative effects	-.188	.553
Branded Equipment	.021	.260
Branded Additives	-.153	.534
Socio Economy	.167	-.004

Extraction Method: Principle Factor Analysis

Rotation Method: Varimax with Kaiser Normalization

Component scores



Models showing effect of Branded Chemicals on Economic sustenance

Different Brands of Chemicals used by different hotels in Jammu & Kashmir

The collection of data has been done in the hotels of Jammu and Kashmir in which one question about the purchase profile of company or name of the company was asked from which chemical was manufactured, it was found that the hotels are using branded chemicals from different companies like Johnson Diversey, Reckitt Benckiser, Dabur, Godrej, Green biotech. The maximum percentage of usage was found of Johnson and Reckitt Benckiser as these are the branded one's and the hoteliers are more inclined towards eco friendly practices and corporate social responsibility.

This not only saves the environment only but also saves time and money to the hotels in this way it follows the concept of socio-Eco mutualism. The usage percentages of chemicals are better understood by this pie-chart.

It has been seen that hotels in J&K mostly use the chemicals of Johnson Diversey and Reckitt Benckiser for the housekeeping purpose only because of two things that is firstly they are easily available in market, having good market credibility and easily usable i.e. there is no need of training to the employees for their usage as it is clearly defined on their containers.

Conclusion

This study aims at finding out the effect of branded housekeeping chemicals on environmental preservation, brand value and economic sustenance. The investigation analyzed various factors and their effect on environmental preservation, safety and security of employees which further take it towards economic sustenance. Understanding the determinants could enable hotel housekeeping managers to adapt and improve their service, bringing their businesses in line with international standards. The study employs widely-used statistical tests and empirical analysis, such as mean, standard deviation, and factor analysis which segregated the different variables into suitable factors that show the effect of Branded Housekeeping chemicals on brand value and environmental preservation. It is therefore obvious/evident from the results that there is highly positive relation of branded Housekeeping chemicals on the environment preservation and brand value enhancement of hotel. The branded chemicals too help in securing the time and money of the hotel as there is fewer requirements of branded chemicals in usage and it does not have the health hazard too, these two qualities again lead the branded chemicals towards economic sustenance. While as unbranded chemicals cause many health disorders like inflammation of lungs, long term respiratory problems, skin irritation, reproductive problems and some chemicals are carcinogenic in nature. In short it is better to use branded chemicals for the housekeeping purpose as these do not only save environment, prevent health hazards but also these are economical as discussed above. In addition to this, it is clear from the models used above that environmental preservation further depends on eco friendly products, organizational usage, safety and security, time consumption, hygiene, negative effects of un branded chemicals, branded equipments and also brand value of organization further depends upon branded additives and socio economy usage of chemicals. Also it is evident from Table 1 values that all the above said factors have effect on environment preservation and brand value of organization which in turn has effect on economic sustenance.

Managerial Implications

After the data analysis and interpretations it was found that mean value and standard deviation of variables like eco friendly products, organizational usage, safety and security, time consumption, hygiene, negative effects, branded equipments, branded additives and socio economy of chemicals do have a lot of effect of Branded Housekeeping Chemicals which in turn have effect on brand value of organization and environmental preservation which further helps to gain economic sustenance. Therefore the Housekeeping managers should adopt following strategies in case of Housekeeping Purchases:

- 1) Always purchase the branded Housekeeping Chemicals for Housekeeping, because of following:
 - a) Needs less quantity in Utilization.
 - b) Helps to maintain standards and specifications.
 - c) Creates highly hygienic and sanitized environment.
 - d) Effective in usage for both organisation and employees.
 - e) No need of training to the employees.
 - f) Prevents employees from getting diseases like lung inflammation etc.
 - g) Helps to prevent environment.
 - h) Do not produce carcinogenic effects.
 - i) Economical in terms of usage.
- 2) Suggest employees about the benefits of branded chemicals than unbranded ones.
- 3) Train the employees about the usage quantity as if the chemicals are used in higher quantities that too lead a negative effect on the surfaces.
- 4) Using branded chemicals helps to gain (CSR) corporate Social Responsibility.
- 5) Study the composition of the chemicals before and match with the surfaces found in the hotels.

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