

A STUDY ON THE MARKET AND COMPETITOR ANALYSIS FOR HOSPITALITY INDUSTRY

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Abstract

The chemical sector helps development of the country by aiding the downstream industries such as detergents, textiles, paper, soaps, pharmaceuticals and others to climb the ladder for economies of scale. With an increase in population and domestic power the industry is expected to grow at 10-13%. Urbanisation, purchasing power, and demand are fuelling opportunities for chemical companies. India also has international demand for its chemicals with an export potential of 5.4%. It exports to Germany, United States of America, United Kingdom, Spain, Singapore, Turkey, Japan and others. With a strong foothold in the domestic and international market the expansion feasibility continues to remain high with substantial and sustainable growth. Chemical industry is offering new products according to changes in the preferences and requirements of the market. The industry has to recognize the need of the time related to technology. Safety, investments, quality, and scale of operations are the key requirements. The main aim of the study is to analyze the expansion feasibility in the hospitality department. The research focuses on learning and gaining insights on competition and market of the cleaning chemical industry for the purpose of understanding the potential for a new company to enter into the market. The research also takes into consideration the future distributor of housekeeping or cleaning chemicals and the growth prospects from a distributor's point of view in a

B2B industry. The study used both primary and secondary sources. The data is collected from domestic locations includes Hyderabad, Port Blair and International locations includes Nepal and Vietnam. The organizations included in the study are basically Schools, Hotels, Hospital, Super Markets, Shopping Mall, Bakery, Restaurants, and Resorts. The sample size for the study is 150. Statistical tolls include averages, mean, percentages, standard deviation and ANOVA used.

Keywords: *Chemical Industry, Competitor, Purchasing Power, Hospitality, GDP and SDGs*

Overview of Indian Chemical Industry

The Indian Chemical Industry is expanding at a high rate. The growth rate of this industry is expected to be 5% per annum for the next 5 years. The projected growth from 2015-2025 has been considerable. The chemical industry is the backbone for the agricultural and industrial development. Wise investments, international access, industry-academic partnerships, initiatives by companies and incentives by the Government will play a key role in boosting the business in the Indian chemical industry. The chemical sector helps development of the country by aiding the downstream industries such as detergents, textiles, paper, soaps, pharmaceuticals and others to climb the ladder for economies of scale. With an increase in population and domestic power the industry is expected to grow at 10-13%. Urbanisation, purchasing power, and demand are fuelling opportunities for chemical companies. India also has international demand for its chemicals with an export potential of 5.4%. It exports to Germany, United States of America, United Kingdom, Spain, Singapore, Turkey, Japan and others. With a strong foothold in the domestic and international market the expansion feasibility continues to remain high with substantial and sustainable growth.

Policy supports, robust demand, increasing investments, and competitive advantage add benefits to chemical manufacturing and distributing companies representing a considerable turnover in revenues. Diversification is another key element in the chemical industry that boasts of 80000 products. An unprecedented growth of \$304 billion is expected by 2025 in the chemical industry. A special provision is being made in the Union budget for the industry at US \$0.4 million. The Indian Government provides for exclusive incentives for the companies and manufacturing units of chemicals covering an area of 250 square kilometers. India has also discarded any restrictions

on Foreign Direct Investment. India has given a nod for 100% FDI in the chemical industry, except in the case of hazardous chemicals.

History of Chemical Industry

P. C. Ray has been the pioneer for the development of Indian Chemical Industry. Mr. Ray, a Chemistry Professor of Calcutta University. He commenced the Bengal Chemicals and Pharmaceutical Works in 1982. This company paved a way for other Indian chemical manufacturing industries. India had begun its sizeable alcohol-based chemical industry by the 1960s which used ethanol as feedstock. Legislations and rules were imposed on alcohol manufacture and distribution as the years passed by. In 1944 Tata Chemicals Limited, Gujarat started the second soda ash plant in India. Currently, it is the second-largest producer in the world. In 1947, Kochi Kerala Atul Limited of Gujrat, was incorporated by Kasturibhai Lalbhai in order to make India self-reliant in the manufacture of chemicals. They set up joint ventures to provide for agrochemicals, polymers, basic chemicals, and dyes. The year 1951, saw the uproar of Sindri Fertilizers and Chemicals Limited, Jharkhand, which became second in India to produce ammonium sulphate. It was the first fertilizer factory to have it's own captive power plant, first in India to make urea, ammonium Nitrate-Sulphate and used gypsum and coal as raw materials.

The petrochemical industry continued to grow in the 1970s, Indian Petrochemicals Corp Ltd played a primary role by incorporating naphtha based cracker in Vadodara. In the 1980s and 1990s, the petrochemicals industry expanded further and on a large scale. In the year 1942, The Council of Scientific and Industrial Research (CSIR) was established. It had the mission to empower scientific and industrial R&D in order to increase economic, societal, and environmental benefits for Indian citizens. It led to the establishment of 3 laboratories for serving chemical sciences: Indian Institute of Chemical Technology (IICT), National Chemical Laboratory (NCL), and Central Drug Research Institute (CDRI). Indian Chemical Council was launched under the watchful eye of P. C. Ray, Rajmitra B. D. Amin, and other industrialists for promoting the industrial interests.

Chemical Industry at International Level

The chemical industry is diverse and fast-growing sector. The industry leaves an impact on the economy and the society at large. The global impact that the chemical industry creates is as follows.

Table 1: Economic Impact of the Global Chemical Industry

Direct Impact	The chemical industry owns activities includes generates GDP and creates employment opportunities for a large number of people in each year.
Indirect Impact	The activities of employment are supported by the chemical industry's broad supply chain through the procurement of goods and services for the industry to function effectively.
Induced Impact	The wider economic benefits that are derived from the expenditure incurred by the people or workers employed within the global chemical industry and its supply chain spend their earnings.

Source: International Congress & Convention Association

It is estimated that the chemical industry does not only have its contribution to the economy but also contribute to other industries. The chemical industry globally spent \$3 trillion with their suppliers for purchasing goods and services which help in the manufacture of chemical products (2017).

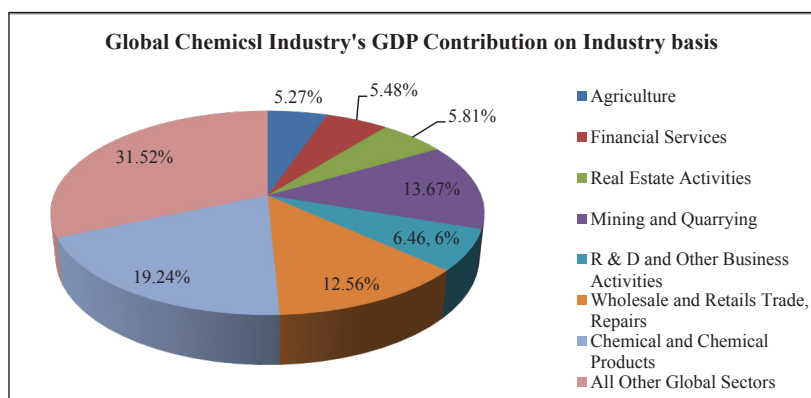
Global analysis of the chemical industry, its supply chain and payroll-induced impact, made a \$5.7 trillion. This contribution was made to the world GDP and supported 120 million jobs. Chemical manufacturers also invest in Research and Development (R&D) throughout the world. In 2017, the investment made in chemical industry R&D was estimated to be around \$51 billion.

Many products of the chemical industry have a positive impact on global development.

- Fertilizers and agrochemicals play a crucial role contributing to Sustainable Development Goals (SDG 15).
- LED lighting, resulting in substantial power savings and supporting SDG 9, to “build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation”.
- Roof and window coatings used to improve insulation levels as part of climate change mitigation efforts, and also contributing to the achievement of SDG 9.
- Water chemicals, treatment of chemicals, contribute to Sustainable Development Goals Goal 1 and Goal 6.

- Plastics used for packaging, which plays a major role in protecting fresh, processed and prepared food, extending its shelf life and contributing to SDG 2 (zero hunger).

Every sector of the global economy benefits from the existence of the chemical industry, as is shown in below figure below. Combining the revenues of all the diverse types of chemical industries, the total contribution directly makes \$1.1 trillion for the global GDP in the year 2017 with mining and quarrying (including oil and gas extraction), and wholesale and retail trade, generating \$0.8 and \$0.7 trillion respectively. The remainder is spread across the rest of the economy, with R&D, real estate, financial services, and agriculture all playing important roles.

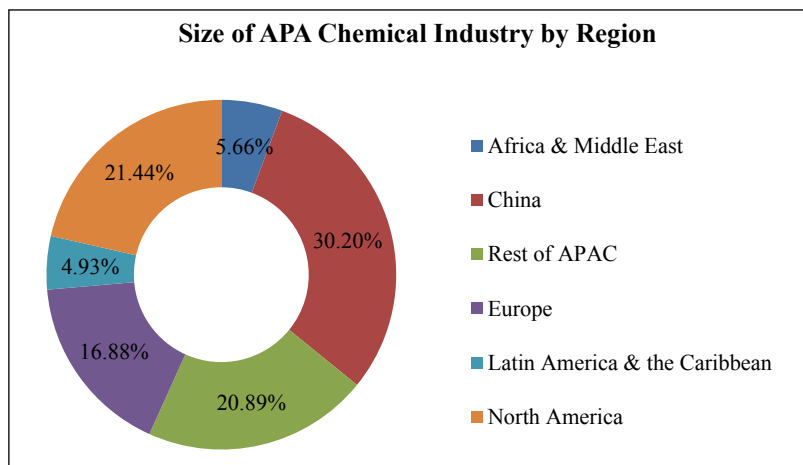


Source: ACC, CEFIC, Oxford Economics

Fig. 1: GDP Contribution on Industry Basis

Chemical Industry at National Level

The Asia-Pacific region created 51% of the world Gross Value Added (GVA) in the year 2017. In this region, the industry represented 2.1% of total GDP. North America and Europe follow, with 21 and 17% of the total, respectively. In both regions, however, the size of the industry is just above 1% of total annual GDP.



Source: ACC, CEFIC, Oxford Economics

Fig. 2: Size of the APA Chemical Industry by Region During the Year 2017

The Indian Chemical Industry has gained a considerable share in the global and domestic market and has become attractive for domestic and foreign investments. It turned out to be a preferred destination for investments worldwide. The Indian chemical market boasts of a world share of 3%. The share cover increased from \$108 billion in 2012 to \$290 billion in 2017. In international trade, India ranks 17th in exports of chemicals, and 7th in imports of the same. The chemical industry constitutes 5.4% of world exports. According to the Planning Commission (2012) the major exporting nations are Singapore, Japan, Switzerland, United Kingdom, United States of America, Spain, and Turkey. The producers are into manufacturing world-class and superior quality products, which delivered a high growth rate. The expansion of the chemical industry has also attracted scientific manpower.

Chemical industry is offering new products according to changes in the preferences and requirements of the market. The chemical industry has developed microbial decolourisation and degradation procedures for textiles. The chemical industry is also exploring biodiversity for natural dyes. Development of eco-friendly methodology for synthetic dyes is a new pioneer. Hindustan Petroleum Corporation Ltd (HPCL), a public sector refiner, has stated its intent to bring to green market lubricants developed from renewable

feedstock. DuPont, as part of its R&D strategy, has set up a knowledge centre in India focusing on areas like green technologies for refinery processes. Tata Chemicals has established an Innovation centre to focus on green technologies in the emerging regions such as nano-technology, fermentation and biofuels.

Chemical Industry at State Level

India is comprised of 29 states and 7 union territories. There are numerous chemical industries in our country. Few of the well-known and large scale industries working on hundreds of square feet are:

- Tata Chemicals Limited
- UPL Limited
- Gujarat Fluoro Chemicals Limited
- BASF India Limited
- Aarti Industries Limited
- GHCL Limited
- India Glycols Limited
- Gujarat Alkalies & Chemicals Limited

Specific chemical producing companies include:

- Asian Paints Limited
- Atul Limited (Top 500)
- Bayer BioScience Agro Private Limited
- Polymer Industries India Limited
- Alkali Metals Limited

Sector Dynamics

The Indian Chemical Industry has both small and large scale units. The chemical manufacturing units are about 70,000 as per Department of Chemicals and Petrochemicals-Draft National Chemical Policy-December 2013. Top ten chemical industries in India in no specific order given below:

Table 2: Top Ten Chemical Industries in India

Company Name	Founded in the Year
Pidilite Industries Ltd	1959
Tata Chemicals Ltd	1939
UPL Ltd	1969
Gujarat Fluoro Chemicals Ltd	1987
BASF India Ltd	1865
Aarti Industries Ltd	1975
GHCL Ltd	1983
India Glycols Ltd	1983
Gujarat Alkalies & Chemicals Ltd	1973
Atul Ltd	1947

Source: <https://www.fundoodata.com/learning-center/top-10-chemical-companies-india/>

Table 3: India's Four Large Producers of Petrochemicals

Company
Reliance Industries Limited (RIL)
Indian Oil Corporation Limited (IOCL)
Haldia Petrochem Limited (HPL)
Gas Authority of India Limited (GAIL)

Source: Federation of Indian Chambers of Commerce & Industries

Conclusion on Chemical Industry

The Confederation of Indian Industry (CII) aims to triple the size of the chemical industry from 2015 to 2025. The industry would be set at the US \$430 billion by 2025. The industry has to recognize the need of the time related to technology. Safety, investments, quality, and scale of operations are the essential requirements. Goods and Service Tax (GST) also benefits the manufacturing units due to the reduction of indirect taxes. The country remains to be dependent on oil and gas in the future as well. Biomass and coal require investments to be exploited advantageously. India lacks inventory that identifies the chemicals for exchange in monetary and kind. A reexamination of the chemical industry is also required to compete with global companies. International companies have ventured out to reevaluate their portfolio through sustainability. Lastly, investments, workers, and company and industry level

development will play a major role in the advancement of the economy and industry.

Objectives of the Study

The primary objective is to find the scope of expansion in the housekeeping industry by providing affordable cleaning chemicals to the business entities large or small. The study is conducting the research to understand the competition in the market. The aim is to analyze the expansion feasibility in the hospitality department which includes all those companies where there is a housekeeping department. The research further expands on learning and gaining insight on competition and market of the cleaning chemicals industry to understand the potential for a new company to enter into the cleaning chemicals market. The expansion feasibility into the cleaning chemicals industry is assessed along with the present suppliers and large scale distributors in Indian and international market for small, medium, and large enterprises.

Methodology

The research is exploratory. To understand the market characteristics, an exploratory method of research is adopted. Most of the people interviewed belong to the operation-level of management i.e., lower levels of management. Both primary and secondary sources are used. The primary sources of data would include the results from field surveys, personal interviews, questionnaire surveys, online research. The data has been collected from domestic and international locations. The domestic data is collected from Hyderabad, Port Blair and the International data is collected from Nepal and Vietnam. The organizations included in the study are basically Schools, Hotels, Hospital, Super Markets, Shopping Mall, Bakery, Restaurants, and Resorts. The secondary sources are the results and information from journals, articles, case studies, interviews of experts and other references of the same nature. The sample size for the study is 150 which are aiming to get the data from hospitality companies. Statistical tools include averages, mean, percentages, standard deviation and ANOVA used.

Scope

The scope of the research on the market and competitor analysis is made for learning the level of saturation of the chemical market, mainly the cleaning chemicals market. The research also takes into consideration the future distributor of housekeeping or cleaning chemicals and the growth

prospects from a distributor's point of view in a B2B industry. Apart from this, the hospitality industry is given preference, namely, hospitals, hotels, resorts, restaurants, schools, supermarkets, malls, bakery chains and others.

Case of the Present Study

A business entering a new market with an existing product needs to assess the existing competition and market. The saturation level of the market and the market share of the competitors are to be understood. In a business sense, the star, question mark, cow, and dog which are a part of the BCG matrix. A graphical representation of the BCG matrix developed by the Boston Consulting Group is given below:

Table 4: Illustration: BCG Matrix

	High Market Share	Low Market Share
High Growth Rate	Star	Question Mark
Low Growth Rate	Cash Cow	Dog

Source: Boston Consultancy Group

The hospitality companies fall under various brackets, such as the size of the business, the region of the business, and the scale of operations. On the basis of various factors the hospitality companies would choose a brand, supplier, or locally produced chemicals for the purpose of cleaning. Mostly the large scale companies prefer the use of cleaning chemicals manufactured by domestic producers, rather than branded commercial producers of chemicals. The difference between the manufactured and commercial chemicals is that the locally manufactured chemicals are quality-oriented and strong and can't be used in normal households as there is a prescribed criterion for its usage. The commercial chemicals such as Harpic, Lizol, and others are commercial products which are expensive to be purchased in bulk and are more preferable by households rather than hospitality companies working on a large scale.

A range of products, suppliers, brands, manufacturers, and distributors are put together in the research report for a careful and detailed understanding of the chemical demand and chemical market. This helps in realizing the market and competitor analysis for assessment of expansion feasibility.

The below table shows the distribution of respondents over a finite range of the various places the respondents hail from.

Table 5: Location of the Hospitality Company

Locations	No. of Respondents	Percentage
Hyderabad	85	56.67
Port Blair	25	16.67
Nepal	20	13.33
Vietnam	20	13.33
Total	100	100.0

Source: Primary Data

From the above table, the location of the hospitality companies revealed that majority that is, 85 (56.67%) of the companies belonged to Hyderabad, 25 (16.67%) belonged to Port Blair from India followed by 20 (13.33%) of the companies belongs to Nepal and remaining 20 (13.33%) of the companies from Vietnam respectively.

Table 6: Type of Hospitality Companies

Sectors	No. of Respondents	Percentage
Schools	13	8.7
Hotels	33	21.7
Hospital	33	21.7
Super Markets	13	8.7
Shopping Mall	20	13.0
Bakery	6	4.3
Restaurants	26	17.4
Resort	6	4.3
Total	150	100

Source: Primary Data

The information collected on the type of hospitality companies of all the respondents disclosed that, 33 (21.7%) of the respondents from Hotels and Hospitals each, 26 (17.4%) of the respondents from restaurants, 20 (13.0%) of the respondents from shopping malls. Further, 13 (8.7%) of the respondents from schools and supermarkets each followed by 6 (4.3%) of the respondents each from bakery and resorts respectively.

Table 6: Factors Looking for Housekeeping Products

Name of the Products	No. of Respondents	Percentage
Quality	117	78.3
Brand	6	4.3
Package	0	0.0
Price	27	18
Total	150	100

Source: Primary Data

Hospitality companies look for quality in the cleaning chemical products as compared to other factors. It is proved from the above table, out of 150, 117 (78.3%) of the companies are looking for quality of the product followed by price and brand with 18% and 4.3% respectively. The considering factors for opting housekeeping products according to importance i.e., Quality, Price and Brand. Packaging plays a negligible role for choosing cleaning chemical products. Therefore, a distributor has to take into consideration the quality of the manufacturer's product while undertaking the distribution process in order to have a revenue generation. The distributor may not be able to reap in results and turnover if an expensive brand is chosen as compared to an affordable brand. Below table shows the data about the type of housekeeping products or cleaning chemical products that are required in a hospitality company for the purpose of facility management.

Table 8: Housekeeping Products used by the Hospitality Companies

Type of Housekeeping Products	No. of Respondents	Percentage	Rank
Detergents	72	47.82	7
Floor Polish	117	78.26	2
Toilet Cleaner	98	65.23	3
White Phenyl	130	86.96	1
Black Phenyl	0	0	0
Dish Wash Liquid	72	47.87	4
Glass Cleaner	72	47.87	5
Odour Eliminator	72	47.87	6
Others	26	17.39	8
Total	150	100.0	Average = 4.5

Source: Primary Data

From the above table, majority of the companies i.e., 130 (86.96%) informed that almost mandatory for cleaning, 117 (78.26%) of the companies Floor Polish, 98 (65.23%) Toilet Cleaner, followed by Dish Wash Liquid, Glass Cleaner, Odour Eliminator, detergents, and others with 72 (47.87%) and 26 (17.39%) respectively and same observed in the ranking given in the above cleaning chemical products based on importance. Average of the ranking among all the chemical products is 4.5. From the study, it is clearly understood that White Phenyl becomes almost mandatory in the hospitality company followed by floor polish, toilet cleaner. Hospitality companies are willing to pay an average of Rs. 5000 on a minimum basis for a month. Therefore, a brand which is cost-effective would be feasible in the market to be distributed.

Table 9: Price Range: Minimum Cost Incurred on Products

Price Range	No. of Respondents	Percentage
Below Rs. 2,000	0	0.0
Rs. 2,000 to Rs. 3000	39	26.09
Rs. 3,001 to Rs. 4,000	26	17.39
Rs. 4,001 to Rs. 5,000	7	4.35
More than Rs. 5,000	78	52.17
Total	150	100

Source: Primary Data

Above table depicts that the minimum price that is to be paid for the three most important chemical products such as White Phenyl, floor polish, and toilet cleaner. The various hospitality companies use various brands of cleaning chemical products are shown below table.

Table 10: Cleaning Chemical Brands

Chemical Brands	No. of Respondents	Percentage
CleanMate	5	3.33
Dettol	6	3.33
Diversey	13	8.67
Innochem	9	6
Johnson Diversey	13	8.67
Lizol	8	5.33

Chemical Brands	No. of Respondents	Percentage
Loose Chemicals	20	13.33
Sai Baba Housekeeping	6	4
Sri Meghna Enterprises	5	3.33
Sunlight	8	5.33
Taski	58	38.69
Total	150	100

Source: Primary Data

From the table, it is clear that 58 (38.69%) of the hospitality companies are using Taski, 13.33% of the companies using Loose chemicals, 8.67% using Diversey and earlier it was Johnson Diversey, 6% Innochem, 5.33% Lizol, Sunlight, 4% Sai Bab Housekeeping, and followed by 3.33% of the companies using Cleanmate, Dettol, Sri Meghana Enterprises. It is assumed that the hospitality companies may have been using some other brand earlier. It is important to know which brand had a market share earlier and the reason to switch the brand if any.

Table 11: Previous Cleaning Brands

Cleaning Brands	No. of Respondents	Percentage
Branded	13	8.7
Clean Mate	13	8.7
Johnson Diversey	26	17.4
Loose Chemical	26	17.4
Taski	72	48
Total	150	100

Source: Primary Data

From the above table, 72 (48%) of the companies have used the Taski brand previously as compared to 26(17.4%) of the companies used Diversey. Did these hospitality companies switches or were loyal?

The table shows the statistics that companies readily switch to Taski as compared to Diversey products. The companies are not very likely to switch from Taski and therefore remain loyalists. If they switched then what was the reason?

Table 12: Hospitality Companies: Loyalty

Loyalty	No. of Respondents	Percentage
Hospitality Companies using Diversey before and “Switched”	20	13.04
Hospitality Companies using Diversey before and “Loyal”	6	4.35
Hospitality Companies using Taski before and “Switched”	20	13.04
Hospitality Companies using Taski before and “Loyal”	19	13.04
Hospitality Companies that switched to Taski	59	39.13
Hospitality Companies that switched to Diversey	26	17.39
Total	150	100.0

Source: Primary Data

Table 13 enlists the reasons for switching. The distributor company has to keep these reasons in mind while deciding on the manufacturer whose products are to be distributed.

Table 13: Complaints: Previous Brand

Complaints	Frequency	Percentage
Better Quality	40	26.67
Poor Services	6	4.0
Low Price	39	26.0
No Reason	65	43.33
Total	150	100.0

Source: Primary Data

From the table, it can be inferred that companies are attracted to better quality and low prices.

Therefore, to beat the competition the company has to take into consideration good quality chemical products and affordable prices to make a share in the market. It is also proved from the table 26.67% of the respondents

informed that better quality followed by low price and poor services with 26% and 4% respectively. Further, it is also observed that 43.33% of them are in confusion. Below table shows the results of the Likert scale on the importance of smell for cleaning products.

Table 14: Importance of the Cleaning Products

Importance of the Product	Frequency	Percentage
Strongly Agree	65	43.5
Agree	33	21.7
Neutral	39	26.1
Disagree	5	3.33
Strongly Disagree	8	5.33
Total	150	100.0

Source: Primary Data

Most of the hospitality companies have not considered smell a defining factor. The smell may be of secondary importance as quality and price take the primary role. From the table it is proved that 65 (43.5%) of the companies strongly agree, 33 (21.7%) of the companies agree, followed by 5 (3.33%) and 8 (5.33%) of the companies disagree and strongly disagree to the importance of the cleaning products. It is also observed that from the table, 39 (26.1%) of the respondents are in confusion to state the importance of the product.

Hospitality companies consider the quality of utmost importance in order to strike a deal with distributors or suppliers of cleaning chemical products. Quality is followed by Price, Brand and Quick Response.

Table 15: Essential Considerations of Hospitality Companies

Essentials to Deal	Frequency	Percentage
Quality	72	47.8
Brand	26	17.4
Price	39	26.1
Quick Reply	13	8.7
Total	150	100.0

Source: Primary Data

Table 16: Descriptive Statistics for Essential Considerations of the Cleaning Products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Quality	72	1.0972	.29834	.03516	1.0271	1.1673	1.00	2.00
Brand	26	2.0000	.00000	.00000	2.0000	2.0000	2.00	2.00
Price	39	3.0000	.00000	.00000	3.0000	3.0000	3.00	3.00
Quick Reply	13	4.6154	.50637	.14044	4.3094	4.9214	4.00	5.00
Total	150	2.0533	1.14568	.09354	1.8685	2.2382	1.00	5.00

Source: Generated from SPSS

From the table, it is proved that, Quality is the highest preferred consideration that has to be taken into account by a distributor while selecting a manufacturer. 72 (47.8%) of the respondents informed that Quality is the most essential consideration of the companies to take a deal with the distributors or suppliers. Further, 39 (26.1%) of the respondents stated that price is important to the extent that it fits the hospitality company's budget allocated for the housekeeping department. The brand is not always essential for the cleaning chemicals as it is not a product of conspicuous consumption. The brand isn't important, but the quality of the brand remains relevant to the organization. From the study, 26 (17.4%) of the respondents opined that it is essential and followed by quick reply with 13 (8.7%) is the least essential consideration of the companies to strike the deal. Few companies prefer to purchase the chemicals in bulk rather than in instalments. Bulk purchase keeps the inventory full and also reduces costs. Descriptive Statistics of the test, the mean for the quality condition is 1.11, the mean for the brand condition is 2, the mean for the price condition is three and the mean for the quick reply condition is 4.62. The standard deviation for the quality condition is 0.31, the standard deviation for the brand and price condition is 0 and the standard deviation for the quick reply condition is 0.51 (when rounded). The number of sample for all the conditions (N) is 150.

The mean for the quick reply condition is 4.61 whereas the mean for the quality condition is 1.11 words remembered. So there are more words remembered in between these two. So here need ANOVA to conclude the significant difference. Further, ANOVA is applied for the test to the following hypothesis.

H_0 : *There is no significant difference in the importance and essential considerations of the cleaning chemical products by the hospitality companies.*

H_1 : *There is a significant difference in the importance and essential considerations of the cleaning chemical products by the hospitality companies.*

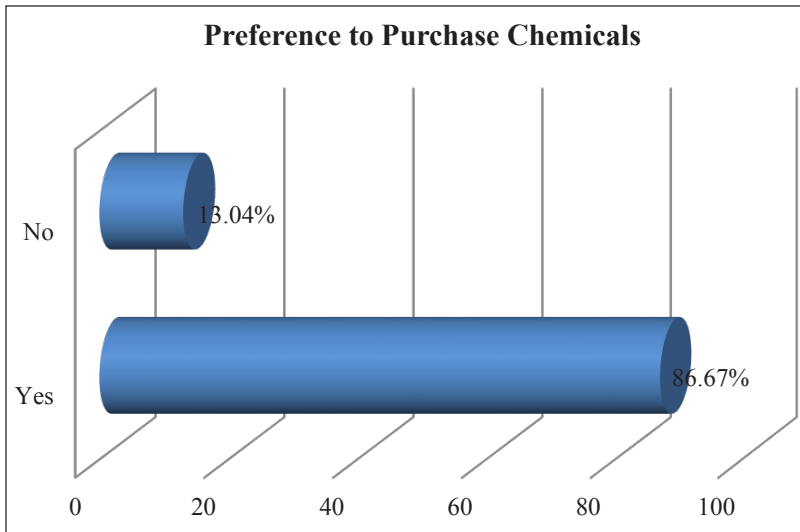
From the above test results clearly shows that the calculated value of F is 964.268. Hence, the level significant value is 0.05 (i.e., 5%) at 3, 146 Degree of Freedom (DoF). The significant value is 0.000 is less than the level of significant 0.05 so the Null Hypothesis is rejected. Hence, it is concluded that there is a statistically significant difference in the importance and essential considerations of the cleaning chemical products by the hospitality companies.

Table 17: ANOVA Test Results

		Sum of Squares	df	Mean Square	F	Sig.	
Between Groups	(Combined)	186.177	3	62.059	964.268	.000	
	Linear Term	Unweighted	151.469	1	151.469	2353.510	.000
		Weighted	182.652	1	182.652	2838.028	.000
		Deviation	3.525	2	1.763	27.387	.000
Within Groups		9.396	146	.064			
Total		195.573	149				

Source: Generated from SPSS

The expiry of these chemicals as well last for more than a year. Therefore, inventory management becomes easy. From the below figure, it is proved that 131 (86.67%) of the respondents prefer to purchase cleaning chemicals in bulk basis rather than instalments and remaining 19 (13.04%) of the respondents were not.



Source: Primary Data

Fig. 3: Preference to Purchase of Cleaning Chemicals

Since most of the hospitality companies prefer bulk purchases, the distributor has to establish bulk combination products. Those products should be associated together, which aim at satisfying a 'bulk' need.

Summary

The chemical sector helps the development of the country by aiding the downstream industries such as detergents, textiles, paper, soaps, pharmaceuticals and others to climb the ladder for economies of scale. With an increase in population and domestic power, the industry is expected to grow at 10-13%. Urbanisation, purchasing power, and demand are fuelling opportunities for chemical companies. India also has international demand for its chemicals with an export potential of 5.4%. It exports to Germany, the United States of America, United Kingdom, Spain, Singapore, Turkey, Japan and others. With a strong foothold in the domestic and international market, the expansion feasibility continues to remain high with substantial and sustainable growth. The Indian Chemical Industry has gained a considerable share in the global and domestic market and has become attractive for domestic and foreign investments. It turned out to be a preferred destination for investments worldwide. The Indian chemical market boasts of a world share of 3%. The share cover increased from \$108 billion in 2012 to \$290 billion in 2017. India lacks inventory that identifies the chemicals for the purpose of exchange in monetary and kind. A reexamination of the chemical industry is also required to compete with global companies. International companies have ventured out to reevaluate their portfolio through sustainability. The unprecedented growth of \$304 billion is expected by 2025 in the chemical industry. A special provision is being made in the Union budget for the industry at the US \$0.4 million. The Indian Government provides for exclusive incentives for the companies and manufacturing units of chemicals covering an area of 250 square kilometres. India has also discarded any restrictions on Foreign Direct Investment. India has given the nod for 100% FDI in the chemical industry, except in the case of hazardous chemicals.

Suggestions

The suggestions for the distributor organization for market and competitor analysis to assess the expansion feasibility are:

- The competitiveness of the market is understood. Two key competitive players in the hospitality industry are Taski and Diversey.

- The expansion feasibility in the hospitality department is huge. Uni Chemicals & Systems have the opportunity to get new and potential customers. Moreover, they can also get brand switchers to their advantage as companies are willing to switch to a cheaper alternative.
- Uni Chemicals & Systems should distribute a product which is affordable and has good quality.
- The major competitors for the distributor are Taski and Diversey if the distributor chooses another brand apart from the former two.
- The competition is powered by Taski, Diversey, and other locally manufactured chemicals. To overcome the competition, the distributor has to choose chemicals which are feasible to enter the market for small, medium, and large scale companies. The distributor can expand into the market by associating and distributing Taski cleaning chemicals.
- The market analysis shows that loyal customers in the cleaning chemical market is volatile. The customers are willing to shift to a new product if the alternative is cheaper.
- If the distributor chooses Taski, it has to compete with other distributors who are distributing for Taski. To compete, Uni Chemicals & Systems can purchase Taski's products and distribute them at lower prices and better services.
- Lower prices of Uni Chemicals will attract more customers and thereby cover the market. This penetration technique would be feasible for expansion in the housekeeping department.

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