GOOD HOUSEKEEPING: LEVEL OF 5S COMPLIANCE OF HOUSEKEEPERS FROM SELECTED BED AND BREAKFAST IN TAGAYTAY CITY

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Abstract: **Implementation of 5'S in hotels is very important because it provides an organized and efficient workplace for the employees. 5'S implementation can be applied in various industries such as hospitality particularly accommodation provider such as hotels. The researchers assess the implementation of 5'S in selected hotels in the city of Tagaytay which is a known tourist destination. The respondents in the study are the hotel employees from the selected hotels in the city of Tagaytay and survey questionnaire as the instrument of the study the result shows that most of the employees of the hotel age 21 to 30 with a gender of male, had an educational attainment of college graduate a monthly income range of P10,000 to P20,000 and is employed with the hotel for less than 1 year. The result of the 5'S assessment shows that the hotel employees often practiced Sort (Seiri), Set in Order (Seiton), Shine (Seiso) and Standard (Seiketsu) while the Sustain (Shitsuke) is sometimes practiced. The result of the relationship between the profile of the respondents and aspects of 5'S shows that there is no significant relationship.**

Keywords: **5'S, Hotels, Sort, Set in Order, Shine, Standard and Sustain.**

1. INTRODUCTION

Customer satisfaction is at the heart of the hospitality industry, with service delivery being one of the most important aspects in a guest's decision to stay at a particular hotel (Firman & Ilyas, 2021). One of the aspects that can affect service delivery is having structured, safe, and clean work environments. 5S is a method for systematically reinforcing workplace organization, cleanliness, standardization, and discipline. Its goal is to establish a work atmosphere where individuals can be productive and provide high-quality products/services while also feeling pride in their workplace. It's also frequently seen as the starting point for bettering operational efficiency, service quality, and, most importantly, staff safety (Fernando & Gamage, 2018).

The application of 5S in hotels is important because it provides an improvement in productivity and efficiency (Nasir, 2017). The 5S as a tool has been proved to increase an organization's performance and to assist the corporation in achieving continuous improvement and higher performance (Chandrayan, Solanki & Sharma, 2019). Various hotels around the world have applied 5's in their hotel such as the Grand Palace Hotel and Spa Yercaud in India (grandpalaceyercaud.com) and Mikazuki Spa and Hotel Resort (sigma.net.vn), however there are questions when it comes to the sustainability and

continuous use of the 5's in hotels in the long run (Nasir, 2017). In the Philippines the practice of using 5's in the organization is well established in micro, small, and medium enterprise (MSME) sector (Raneses et al. 2020) however there is a lack of published research when it comes to the implementation of the 5's in hotels in the Philippines.

In regard to the study, one significant feature of lodging is housekeeping; in lodging, the housekeeping department is responsible for general housekeeping; housekeeping teams can vary greatly depending on the size of the hotel. The responsibility of the housekeeping department is enormous and very important to an accommodation establishment in order to maintain a quality service provided to customers. Small boutique hotels may have only a few room attendants, while large resorts may have hundreds of housekeeping team members. Leadership roles, room responsibilities, public spaces, laundry areas, linen rooms, and other roles are separated into six categories in a housekeeping department. (Guzman, 2020).

The adoption of a hotel housekeeping management system is very important when it comes to the housekeeping of accommodation establishments such as hotels and other lodging providers, because when it comes to hotels, the housekeeping department is very important because the most important factor to look at in a hotel is the room because it is the main product. The importance of the housekeeping department also involves the significant labor and material resources spent on housekeeping management. The housekeeping department must meet the needs of the clients and give services to them at all times. (Boakye-Kessie, Fatawu & Boatang, 2018).

The adaption of total quality management practices such as the 5's model is important in order to provide a quality service and customer satisfaction either big accommodation providers such as hotels and even small accommodation providers such as inn and lodging must provide a quality management practices. (Kaufmann-Buhler, 2018).

The legal basis for the study is the ISO 9001:2015 The international standard ISO 9001 defines the requirements for a quality management system (QMS). The standard is used by businesses to show that they can consistently deliver products and services that fulfill customer and regulatory criteria. It is the most widely used standard in the ISO 9000 series and the only one that enterprises can certify with (asq.org).

On the other hand, the research subject and the setting The City of Tagaytay, located in the southern part of the province of Cavite, located 56km from Manila, Tagaytay city emerge from being a small town to become a tourist city; a major tourist destination as it is near from the capital Manila. The city is known for its cool climate since the city is located in a high upland area. (Tagaytay.gov.ph).

The city boasts the tourism industry as an important sector because mostly their income comes from this industry itself, as the view of the Taal Volcano, is the major tourist spot in the area. There are also several recreational facilities for the tourist available. Accommodation is not a problem since there are a lot of hotels in the area currently there are 10 hotels that are accredited by the Department of Tourism (Cavite.gov.ph, 2020). Observations suggested that there is a lot of accommodation interest in the city of Tagaytay different establishment ranges from reasonable price to different class of services. Establishments such as hotel, motel, inn, pension house are available in the area. (Tagaytay.gov.ph).

The proposed study would like to determine the total quality management: good housekeeping practices of small lodging hotels in Tagaytay City. The participants of the study are the housekeeping crew of the small accommodation provider, a survey questionnaire was the main tool of the study by the researchers. Specifically, the study sought to answer the following questions: The first is what are the profile of the respondents in terms of age, gender, monthly income, educational attainment and years of employment. Second how does the respondents assess the 5's housekeeping practices in terms of Sort, Set in Order, Sweep, Standardized and Sustain. Third is there significant different in the assessment of 5'S good practices of the respondents when grouped in profile and lastly based on the findings what action plan can be implemented to improve the 5's housekeeping practices.

The scope of the study was good housekeeping practices based on the concept that was used in the study which is the5's concept application in the hospitality industry, the study will be done from January to May 2021. The study will be limited to the housekeeping department crews as the respondents of the study and the focus on 5's concept as applied concept when it comes to good housekeeping. The study is important to the hospitality industry in order to come up with better ways in order to improve the service quality the provided with the customers which are the guest. The study is also important to the small accommodation guest in order to raise awareness on the importance of the 5's in providing a quality service and added efficiency to the accommodation provider and lastly to the future researchers so that they will expand the study about the 5's good housekeeping practices.

2. RELATED LITERATURE

Rooms are the major product that is offered in an accommodation provider, and a good accommodation is very important in order to provide a great service to the client, the importance of housekeeping in hotels is extremely important. The housekeeping department is the most crucial department to consider in a hotel because they are responsible for not only preserving the cleanliness of the rooms, but also the cleanliness of the entire hotel property, which includes the corridors, interior, and exterior perimeter (Kumar, 2020).Therefore, the housekeeping department can be considered as a very important workers in the hotel as it is suggested that housekeeping services could impact the customer satisfaction in the hotels (Bhatnagar & Nim, 2019).

The housekeeping department is responsible in general housekeeping of an accommodation, housekeeping teams can vary greatly depending on the size of the hotel. Small boutique hotels may have just a handful of room attendants, while giant resorts can have hundreds of housekeeping team members in which the responsibility of the housekeeping department is enormous and very essential to an accommodation establishment in order to maintain a quality service provided to the customers. In a house keeping department the roles are divided into 6 roles such as leadership roles, room responsibilities, public areas, laundry area, linen rooms and other roles (Guzman, 2020). When it comes to the responsibilities of housekeeping the main scope of the housekeeping department is to maintain cleanliness and orderliness in the guest rooms, provide all the guest supplies they play a vital role to keep the area free from safety hazards, in addition housekeeper should also attend guest request and make the guest more comfortable. Housekeeping department organize, provide and control clean linen, laundry operation, room service to guest and cleaning procedures however the activities of the housekeeping department first is to maintain comfort safe and secure environment, provide services economically and efficiently third the training its personnel, and Room supplies and equipment's (Sivakami, 2020).

In relation when it comes to the housekeeping department, each of the hotel accommodations large scale and small scale strive for quality service to the guest as the reputation of the hotel is at stake. Respective Housekeeping Departments applies and strive for efficiency and there are different tools and concept that is use to improve the total quality management. One of the most widely tools and concept that is used to improve the efficiency of service while maintaining the quality of service is the 5's the (Ahmed, 2018). Different industries such as engineering, food production, and etc. widely used the 5's in order to strive efficiency and productivity and improve service to the customer the concept of 5's can be applied to different parts of industry such as automobile, production and services however the main concept of 5's can also be applied in hotels and accommodation services provider. (Bharambe et. al, 2020).

However, the main concept of applying 5's to the hotels is to improve customer satisfaction and improvements in the productivity and efficiency of the operation of the hotels (Firman & Ilyas, 2021). The application 5's in the hospitality industry example could be in the administrative process, book keeping and customer service are included (Ashraf, Rashid and Rashid 2017). However, there are still problems when it comes to the continued implementation of the 5's because management of hotels could not foresee the benefits of implementing 5's in the organization therefore driving the continued implementation is suggested such as rewards and recognition from the employees (Nasir, 2017)

The application of 5's into the housekeeping aims to maximize the guest benefit and to minimize the use of the resource. It also offers great value to their guests, to reduce costs and to remain competitive in the hospitality industry, the 5's also provides a benefit to every process in regards with the housekeeping management the concept of 5's can be scaled from large scale services operations such as hotels to small scale and medium scale accommodations provider such as motel and inns (Thapa, Gupta and Qureshi, 2020). The 5's process starts with the Sort in which it organizes and prevent the problems in the workplace, such as broken equipment's in hotel, not used raw materials and removal of any risks from the areas. The second process is the sweep in which it concentrates on cleaning the surface and inspection of all machines a regular basis. The third is the standardize in which this process includes all tasks of housekeeping which depends on mistakes and carries out the task correctly. While the main purpose here is reducing wastage, improving efficiency and achieving output quality. The fourth step is the simplify in related to housekeeping ensuring that all equipment and items are in the right place, is easily accessible and reduces the time for searching for the items. While the last step is the sustain in which it is an ongoing process that sustains the operation and improves efficiency of the process of the housekeeping (Ahmed, 2018).
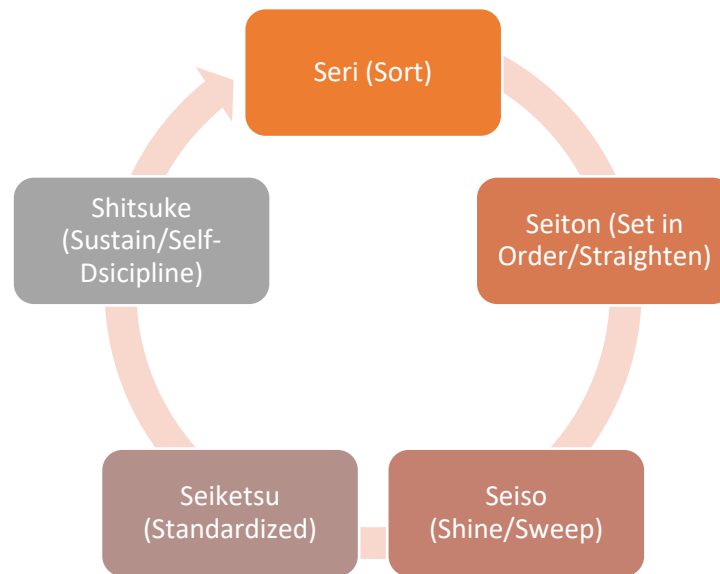
Figure 1: Conceptual Framework (5's Concept)

The figure above shows the conceptual framework used in the study, the concept of 5's started in Japan; the main purpose of the 5's concept as a whole is to make the workplace orderly to improve safety and efficiency, reducing the product defects rate and improve service quality. The concept of 5's is first applied in production system particularly automobile have saw the potential that the concept of 5's can be applied into different industries (Bharambe et. al 2020). The same concept of 5's is applied in hotels in which it has been known as the housekeeping 5's pillars (Ahmed, 2018). The application of the 5's concept is also shown that it can be scaled down to small and medium scale industry (Iqbala, 2020). The 5's represents Japanese words that describe the steps of a workplace organization process. These are Seiri (Sort), Seiton (Straighten, Set), Seiso (Shine, Sweep), Seiketsu (Standardize), and Shitsuke (Sustain). The 5S technique is amongst the first and fundamental steps implemented by an enterprise towards the path of implementing Total Quality Management and continuous improvement at the operation level. The 5's will be needed if the workplace is messy and unorganized. It will also be needed if employees spend extra time in searching tools, papers, information, etc.

This study provides information on 5's good housekeeping techniques which can be used as a tool for systematic approach for productivity, quality and safety improvement in all types of businesses/industries. The overall goal of this study is to provide update and relative information on Good Housekeeping which is the first step in building up local and global standards. The concept of 5's is applicable for small and medium enterprises (accommodation provider) as according to Iqbala (2020) whose desire is to grow in this competitive environment.

3. METHODOLOGY

The researchers will use quantitative research method. Furthermore, in order to determine the gathered information for this research study, the researchers use descriptive research method. Descriptive research can effectively design a questionnaire with neither open nor closed ended questions. The information that is collected from the responses can be statistically presented with this type of research method for it was easy to report and to have easy interpretation.

In this study the researchers used purposive random sampling in which the study purpose is to know the good housekeeping practices of small accommodations provider in the city of Tagaytay in which the housekeepers working in the small accommodation's provider are the respondents of the study. There are 60 respondents in which there are 20 respondents each selected small accommodation which includes F8 Bed and Breakfast, Magallanes Square Hotel and Containers by Eco Hotel. The survey questionnaire is self-made based on the concept of 5S. The design of the survey will be in Likert Form with ratings from 4 to 1 and interpreted as Always Practiced as the highest (4) and Needs Practices as the lowest (1). The questionnaire will be validated by the adviser hence using face validity Face validity refers to an expert looking at the questions in a questionnaire and agreeing that the test is a valid measure of the topic being measured based solely on the concept of the given topic (Yaddanapudi & Yaddanapudi 2019).

The chosen participants answered the survey questionnaire that was given to them, the distribution of survey questionnaires was done in a span of 2 weeks 2 for the first week and the third accommodation in the third week. In distributing the survey

questionnaire, the researchers asked if they are hotel staff and once the confirmation the respondents the hotel staff answer the survey questionnaire and the researchers waited for them to finish the answer. The researchers will distribute the survey during the first and second week of July 2022.

Percentage and frequency were used in analyzing the profile of the respondent. Descriptive statistics was used in the study in order to interpret the data. Computing the standard deviation in the study was really important since this was compared to the standard weighted mean. The standard weighted mean had a meaning for the corresponding points 1.00 to 1.49 Needs Practiced, 1.50 to 2.49 Sometimes Practiced, 2.5 to 3.49 Practiced and 3.5 to 4 Always Practiced. Lastly, ANOVA (Analysis of Variance) and T-Test was used to assess if there is a significant different in the assessment of 5'S good practices of the respondents when grouped in profile. This statistical analysis is really important in testing, significance for categorical variables. This will show the relationship if significant on the different variables.

4. DATA AND RESULTS

Table 1: Age of the Respondents

Age	Frequency	Percent
21 to 30	33	68.75
31 to 40	11	22.917
41 to 50	4	8.333
Total	**48**	**100**

The table 1 shows the result of the age of the respondents in which most of the respondents age 21 to 30 years with 33 (68.75%) respondents, followed by 31 to 40 years old with 11 (22.917%) respondents while the lowest number was 41 to 50 years old with 4 (8.333%) respondents.

The result shows that most of the respondents are young adults According to PSA (2019) young adults had the highest percentage of workforce which includes the hospitality industry according to the data (PSA, 2019) age 25 to 34 estimates to be 27% of the workforce and the largest number of workers are in service sector which includes the hospitality and tourism sector therefore this validated the result as to why there are more young adults working in the hotels while there are few more adults in the hospitality industry due to the booming of hospitality industry that it needs more new workers the young adults in the industry.

Table 2: Gender of the Respondents

Gender	Frequency	Percent
Male	25	52.083
Female	23	47.917
Total	**48**	**100**

The table 2 shows the result on the gender of the respondents the result shows that most of the respondents are male with 25 (52.083%) respondents followed by female respondents with 23 (47.917%) respondents.

The result shows that there are more male workers when it comes to the resorts. According to PSA (2019) the number of workforces in the labor is much higher in males as compared to women but in the hospitality industry females' workforce are more as compared with male therefore this could explain as to why there is not much difference with the number ratio of males to females since the data shows that there is an almost equal number of respondents.

Table 3: Educational Attainment of the Respondents

Educational Attainment	Frequency	Percent
Vocational	2	4.167
College Level	9	18.75
College Graduate	37	77.083
Total	**48**	**100**

The table 3 shows the result of the educational attainment of the respondents most of the respondents are college graduate with 37 (77.083%) respondents followed by college level respondents with 9 (18.75%) respondents while the lowest number respondents are high school graduates with 2 (4.167%) respondents.

According to PSA (2019) workers in hospitality industry are usually bachelor's degree but in the result in can be observe that there are also respondents that were college level. This explain that there is not much necessarily a need to work for hospitality industry with a bachelor's degree as some institution offers skills and training to be able to work in the hospitality industry because there are college level respondents, vocational level respondents and college graduate respondents.

Table 4: Monthly Income of the Respondents

Monthly Income	Frequency	Percent
P10,001 to P20,000	39	81.25
P20,001 to P30000	9	18.75
Total	48	100

The table above shows the result on the monthly income of the respondents the result shows that most of the respondents had a monthly income range of P10,001 to P20,000 with 39 (81.25%) respondents followed by respondents with an income range of P20,001 to P30,000 with 9 (18.75%) respondents.

The result shows that the monthly income of the respondents is in the lower range the median income for the workers in hospitality and tourism sector in the Philippines is P29,700 while the lower range is P11,300 per month (salaryexplorer.com, 2022). This interprets that the salary of the respondents is in the lower range this could be explained by the age of the respondents and the relation to years of the employment which will be explained afterwards because the respondents are new to their jobs and are young that their salary could be a starting salary rate which is below the suggested median of salary in the hospitality and tourism sector.

Table 5: Years of Employment of the Respondents

Years of Employment	Frequency	Percent
Less than 1 year	23	47.917
1 to 3 years	21	43.75
3 to 5 years	4	8.33
Total	**48**	**100**

The table 5 shows the result on the years of service of the respondents the result shows that most of the respondents had a year of employment with the hotel with less than 1 year with 23 (47.917%) respondents, followed by respondents with below 1 to 3 years with 21 (43.75%) respondents while the lowest number was more than 3 to 5 years of experience with 4 (8.33%) respondents.

The result suggests that most of the respondents range from 1 to 2 years of work service which means that they are fairly new to their work. According to PSA (2019) young adults are the usual workforce in hospitality industry which means that the respondents are probably new to the service since most of them are young adults which explains that this could be their first job.

Table 6: Respondents assessment of Sort (Seiri)

Sort (Seiri)	Mean	Verbal Interpretation	Rank
1.The management frequently decide what objects are necessary and what is unnecessary (e.g office materials such as papers, office tools and housekeeping materials such as vacuum cleaner, polishing machine, cleaning brushes and cleaning chemicals).	3.271	Often Practiced	1
2. Unnecessary items are kept and put in a separate area (storage area)	2.854	Often Practiced	3
3. Items which have not been used in the past one year were donated or discarded.	2.958	Often Practiced	2

4. The management practice red tagging which are items that has an uncertain ownership and lost and found items were stored for 30 days and after the period either sell the item, donated or discarded.	2.167	Sometimes Practices	5
5. Necessary items that are remove due to a change to new items where either recycled, donated or discarded.	2.729	Often Practiced	4
Overall Assessment of Sort	**2.796**	**Often Practiced**	

The table above shows the result of the sort (seiri) assessment of the respondents the result shows that the highest mean can be found in The management frequently decide what objects are necessary and what is unnecessary (e.g office materials such as papers, office tools and housekeeping materials such as vacuum cleaner, polishing machine, cleaning brushes and cleaning chemicals) with a mean of 3.271 and is interpreted as often practiced while the lowest mean can be found in The management practice red tagging which are items that has an uncertain ownership and lost and found items were stored for 30 days and after the period either sell the item, donated or discarded with a mean of 2.167 and it interpreted as sometimes practiced the overall mean of 2.726 suggest that when it comes to sort (seiri) the management of the hotel is often practiced.

The result shows that the highest mean can be found in the management frequently decide what objects are necessary and what is unnecessary (e.g office materials such as papers, office tools and housekeeping materials such as vacuum cleaner, polishing machine, cleaning brushes and cleaning chemicals). The result probably explains the hotels in subject practiced this part of sort is because this is the usual things that is needed and could be a common practice in the hotel. According to Ashraf and colleagues (2017) objects that are necessary is always available in the workplace area because this is a common practice among the food and beverage industry the same thing can also be said when it comes to accommodation provider because cleaning materials and office materials are usually needed which explains as to why this has the highest mean.

While the lowest mean The management practice red tagging which are items that has an uncertain ownership and lost and found items were stored for 30 days and after the period either sell the item, donated or discarded this could be probably explain that the hotel does not practice red tagging after all as according to the respondents some of them were ask by the researchers and red tagging is not a practice usually lost items were given to the reception for the guest to claim otherwise if the item stand there for too long then the items were discarded. According to Bhrambe and colleagues (2020) 5's can be implemented in different industries however there could be modifications that comes along with it this means that the practice of red tagging included in sort is not a common practice in hotels because there are different 5's implementation in different industries.

Table 7: Respondents assessment of Set in Order (Seiton)

Set in Order (Seiton)	Mean	Verbal Interpretation	Rank
1. The management put all materials and equipment at a place allocated to them with proper label or signalization. (ex. Labelling the storage of cleaning materials).	3.021	Often Practiced	1
2. The management uses alerts or indications for out-of-stock materials and equipment such as logging into the system out of stock materials and equipment or using bulletin boards.	2.646	Often Practiced	5
3. Items that are used hourly and every day is readily available at the work station of each employee. (e.g paper, clips, cleaning trolleys)	2.896	Often Practiced	4
4. The employee practice putting the tools and equipment in its proper place and easy to return each item to its proper place after using.	3	Often Practiced	2
5. Items that is used once in 6 to 12 months or more is stored at a distance from work station (e.g. swimming pool cleaning chemicals, scrubbing machine).	2.583	Often Practiced	6
6. Items that is used more than one a week and once a month is readily available at a central area in the workplace (e.g polishing machine, gardening tools.)	2.958	Often Practiced	3
Overall Assessment of Set in Order	**2.851**	**Often Practiced**	

The table above shows the result of the Set in Order (Seiton) the result shows that the highest mean can be found in the management put all materials and equipment at a place allocated to them with proper label or signalization. (ex. Labelling the storage of cleaning materials) with a mean of 3.021 and is interpreted as often practiced while the lowest mean can be found in Items that is used once in 6 to 12 months or more is stored at a distance from work station (e.g. swimming pool cleaning chemicals, scrubbing machine) with a mean of 2.583 and is interpreted as often practiced the overall mean of 2.851 suggest that the overall assessment for set in order (seiton) is often practiced.

The result shows that the highest mean can be found in the management put all materials and equipment at a place allocated to them with proper label or signalization. (ex. Labelling the storage of cleaning materials). The reason to this is that this is a common practiced among the hotels subject to research and this is helpful to the hotel staff to identify the materials, usually this is applied in the housekeeping which is why labels are important (Guzman, 2020). Aside from that this is a common part among the housekeeping department as this housekeeping department is the one that is responsible in the Room supplies and equipment handling (Sivakami, 2020) however this part as to why it is the highest mean as this can also be applied in the administrative process in running accommodations (Ashraf, Rashid and Rashid 2017).

In relation the lowest mean Items that is used once in 6 to 12 months or more is stored at a distance from work station (e.g. swimming pool cleaning chemicals, scrubbing machine) got the lowest mean could be attributed that the hotels have less items that is used once in 6 to 12 months therefore this could be overlook or they did not have items that is used for once in 6 to 12 months.

Table 8: Respondents assessment of Shine (Seiso)

Shine (Seiso)	Mean	Verbal Interpretation	Rank
1. The management divides the total area in zones (number of rooms) and allocate responsibility for cleaning for each zone.	3.271	Often Practiced	1
2. The management decides on cleaning points, order of cleaning, type of cleaning, cleaning aid required, etc.	2.896	Often Practiced	4
3. The management displays cleaning schedule in a bulletin board	2.833	Often Practiced	5
4. During cleaning the staffs look for defective conditions in the room and thought of how to solved it (e.g broken furniture and broken electronics)	3.104	Often Practiced	2
5. There is an allocated space for storage of cleaning aids and consumables for cleaning (e.g floor cleaners and toiler cleaners)	3.042	Often Practiced	3
Overall Assessment of Shine	**3.029**	**Often Practiced**	

The table above shows the result of the shine (seiso) assessment of the respondents the result shows that the highest mean can be found in the management divides the total area in zones (number of rooms) and allocate responsibility for cleaning for each zone with a mean of 3.271 and is interpreted as often practiced while the lowest mean can be found in the management displays cleaning schedule in a bulletin board and it interpreted as often practiced with a mean of 2.833. The overall mean of 2.726 suggest that when it comes to shine (seiso) the management of the hotel is often practiced.

Based on the results the highest mean can be found in the management divides the total area in zones (number of rooms) and allocate responsibility for cleaning for each zone. The probable reason as to why this got the highest mean is because this is a common practice in hotels cleaning for the rooms in hotel are allocated to the staffs in which staffs are assigned to clean a number of rooms after each of the checkout this is one of the major responsibilities of the housekeeping staff (Guzman, 2020) while the hotel administration is the one that makes the schedule and allotment of each room for the staffs to clean it (Sivikami, 2020).

On the other hand, the lowest mean can be found in the management displays cleaning schedule in a bulletin board usually this is the practice when it comes to the hotel that a bulletin board indicates and marks in the schedule but based on the result this is the lowest this is probably due to the hotel size as big hotels could practice this but the hotels that is used in the research are not big hotels and they have usually a small number of staffs small hotels have different implementation of housekeeping practices (Boakye-Kessie, Fatawu and Boateng, 2018) this explains the result as to why the management displays cleaning schedule in a bulletin board got the lowest mean.

Table 9: Respondents assessment Standardize (Seiketsu)

Standardize (Seiketsu)	Mean	Verbal Interpretation	Rank
1. The management documents procedures and guidelines for sorting, set in order and shine.	2.792	Often Practiced	2
2. The management provides staff training to cover the checklist and cleaning standard procedures.	2.604	Often Practiced	5
3. The management carry out periodic evaluation of 5S implementation.	2.313	Sometimes Practices	6
4. The management uses floor paint marking to define working area, path, entrance/exit, safety equipment, cart/ trolley locations, etc.	3.063	Often Practiced	1
5.The management uses standard colour coding for pipelines for steam, water, gas, drainage, etc.	2.771	Often Practiced	3
6. The management uses display cautions, messages, instructions at proper place at proper height and written clearly.	2.667	Often Practiced	4
Overall Assessment of Standardize	**2.701**	**Often Practiced**	

The table above shows the result of the Standardize (Seiketsu) the result shows that the highest mean can be found in the management uses floor paint marking to define working area, path, entrance/exit, safety equipment, cart/ trolley locations, etc. with a mean of 3.063 and is interpreted as often practiced while the lowest mean can be found in the management carry out periodic evaluation of 5S implementation. with a mean of 2.313 and is interpreted as sometimes practiced the overall mean of 2.701 suggest that the overall assessment for standardize (seiketsu) is often practiced.

The result shows that the highest mean can be found management uses floor paint marking to define working area, path, entrance/exit, safety equipment, cart/ trolley locations, etc. The result indicates that the management uses marking in defining path to entrance/exit and the cart/trolley locations. According to Firman and Ilyas (2021) the implementation of the 5's in hotel is directly related to customer satisfaction in which the hotels need to follow standards in order to act fast and efficient to the needs of the hotel guest in which the hotels in subject practice marking and labelling in order for the employees to easily identify the location of the equipment and particularly trolley location so that the management could act as efficiently in maintaining the cleanliness of the hotel in which the hotel guest will be satisfied.

Meanwhile the lowest mean can be found in the management carry out periodic evaluation of 5S implementation have found to be the lowest this is because not all of the hotels practice evaluation of 5'S according to Nasir (2017) the problem with the implementation of 5'S in hotels is the lack of foreseeing the benefits of implementing 5's in the organization which means that 5'S in the hotel subject have not fully implemented a 5'S system or it could be that they have a different implementation as according to Bharambe and colleagues (2018) there are different application of 5'S in different industries.

Table 10: Respondents assessment Sustain (Shitsuke)

Sustain (Shitsuke)	Mean	Verbal Interpretation	Rank
1. The management creates awareness and publicize the system. (e.g develop 5S News, 5S Posters, 5S Slogans, 5S Day.)	1.917	Sometimes Practiced	3
2. The management creates a structure of how and when 5S activities will be implemented for sustainability.	1.979	Sometimes Practiced	2
3. The management formulate guidelines for audit/evaluation of 5S	1.896	Sometimes Practiced	4
4. The management rewards and recognize best performer employees of the 5S. Implementation semi-annually.	2.292	Sometimes Practiced	1
5. The management practice continuous improvement and plan for the implementation of 5S.	1.792	Sometimes Practiced	5
Overall Assessment of sustain (Shitsuke)	**1.975**	**Sometimes Practiced**	

The table above shows the result of the Sustain (Shitsuke) shows the highest mean can be found in the management rewards and recognize best performer employees of the 5S. with a mean of 2.292 and interpreted as sometimes practiced. While the lowest mean can be found in the management practice continuous improvement and plan for the implementation of 5S with a mean of 1.792 and is interpreted as sometimes practiced the overall mean of 1.975 suggest that the overall assessment for standardize (seiketsu) is sometimes practiced.

Based on the result of the Sustain (Shitsuke) the result indicates that all of the statements are sometimes practiced while the highest is the management rewards and recognize best performer employees of the 5S. Implementation semi-annually the probable reason to this is the management still have awarding on the best performer employees albeit not on regular basis according Firman and Ilyas (2021) the implementation of 5'S is related to customer satisfaction however the Sustain (Shitsuke) part does not directly linked with an increase customer satisfaction meaning that this is on purely on the management basis and is not observable to the guest. While according to Nasir (2017) the problem with the implementation of 5'S in hotels is the lack of foreseeing the benefits of implementing 5's in the organization which means that that the management does not see an incentive on why they should implement 5'S in the hotel. Since the hotels that are subjected to research can be considered as small hotels according to (Boakye-Kessie, Fatawu, and Boateng, 2018) small hotels are focus on standards in providing the guest the best accommodation as possible to the guest which could indicate that the management could lack the resources and the knowledge in implementing 5'S.

The result coincides with the lowest mean in which the management practice continuous improvement and plan for the implementation of 5S. in which the management does not see the benefit of applying the 5'S and sustain it in their respective hotel (Nasir 2017) because of the lack of the incentive to the management and the employees to apply it as long as the hotel provided standard service to the guest and no complains were made by the guest then the hotel will continue to operate therefore the hotel sees the implementation to sustain the 5'S is lacking.

Table 11: Significant Difference between the Assessment of 5'S and Age

5 S's	Age			F-value	p-value	Interpretation
	Mean 21 to 30	Mean 31 to 40	Mean 41 to 50			
Sort	2.794	2.8	2.8	0.005	0.995	Not Significant
Set in Order	2.874	2.788	2.833	0.76	0.474	Not Significant
Shine	3.042	3.073	2.8	3.166	0.052	Not Significant
Standard	2.722	2.636	2.708	0.828	0.444	Not Significant
Sustain	2.024	1.909	1.75	2.617	0.084	Not Significant

The table above shows the result of the relationship between the assessment of the respondent of 5'S and their age the result shows that there is no significant difference in the assessment of the 5'S good practices, specifically, Sort, Set in Order, Shine, Standard and Sustain when respondents are grouped by age, since the F-values of 0.005, 0.76, 3.166, 0.828 and 2.617 have p-values greater than 0.05 significance level. Thus, the null hypothesis of no significant difference is not rejected. This indicated that the assessment of the 5'S good practices are the same across all age groups.

The result shows that there is no significant difference between the age of the respondents and their assessment of 5'S practices. According to Ahmed (2018) most of the employees does not have an idea when it comes to lean principles in a hotel which includes implementing 5'S and they rely on the management of the hotel to explain it them in which usually there is a lack of 5'S implementation from the management of the hotel and based on the result the age does not have significant difference meaning that all of the employees rely on the information about 5'S from the management.

Table 12: Significant Difference between the Assessment of 5'S and Gender

5 S's	Gender		t-value	p-value	Interpretation
	Mean Male	Mean Female			
Sort	2.8	2.791	0.149	0.882	Not Significant
Set in Order	2.813	2.891	1.353	0.183	Not Significant
Shine	3	3.061	1.044	0.302	Not Significant
Standard	2.647	2.761	1.144	0.307	Not Significant
Sustain	1.92	2.035	1.552	0.127	Not Significant

The table above shows the result of the relationship between the assessment of the respondent of 5'S and their gender the result shows that there is no significant difference in the assessment of the 5'S good practices, specifically, Sort, Set in Order, Shine, Standard and Sustain when respondents are grouped by gender, since the t-values of 0.149, 1.353, 1.044,

1.144 and 1.552 have p-values greater than 0.05 significance level. Thus, the null hypothesis of no significant difference is not rejected. This indicated that the assessment of the the 5'S good practices of the male and female respondents are the same.

Based on the result there is no significant different this means that gender is not a factor when it comes to 5'S Bharambe and colleagues (2018) explained that 5'S can be implemented in a lot of different industries however there is no mentioned that gender is a factor when it comes to the implementation of 5'S because the implementation of 5'S and experience in implementing 5'S comes from the management itself meaning it is collective and is not individual.

Table 13: Significant Difference between the Assessment of 5'S and Educational Attainment

5 S's	Educational Attainment			F-value	p-value	Interpretation
	Mean Vocational	Mean College Level	Mean College Graduate			
Sort	2.7	2.867	2.784	0.856	0.432	Not Significant
Set in Order	2.917	2.796	2.86	0.468	0.629	Not Significant
Shine	2.9	2.978	3.049	0.867	0.427	Not Significant
Standard	2.75	2.593	2.725	1.875	0.165	Not Significant
Sustain	1.7	2.067	1.968	1.751	0.185	Not Significant

The table above shows the result of the relationship between the assessment of the respondent of 5'S and their educational attainment the result shows that there is no significant difference in the assessment of the 5'S good practices, specifically, Sort, Set in Order, Shine, Standard and Sustain when respondents are grouped by educational attainment, since the F-values of 0.856, 0.468, 0.867, 1.875 and 1.751 have p-values greater than 0.05 significance level. Thus, the null hypothesis of no significant difference is not rejected. This indicated that the assessment of the 5'S good practices are the same across all educational attainment groups.

Based on the results there is no significant different this means that educational attainment is not a factor when it comes to 5'S. According to Ahmed (2018) employees can be trained by the management when it comes to the implementation of 5'S however it is the management of a hotel that is responsible when it comes to the implementation of 5'S and not the employees since the employees will follow the orders from the hotel management.

Table 14: Significant Difference between the Assessment of 5'S and Monthly Income

5 S's	Income		t-value	p-value	Interpretation
	Mean P10,001-P20,000	Mean P20,001-P30,000			
Sort	2.8	2.791	1.824	0.075	Not Significant
Set in Order	2.813	2.891	0.589	0.558	Not Significant
Shine	3	3.061	0.476	0.636	Not Significant
Standard	2.647	2.761	0.925	0.36	Not Significant
Sustain	1.92	2.035	1.403	0.167	Not Significant

The table above shows the result of the relationship between the assessment of the respondent of 5'S and their monthly income the result shows there is no significant difference in the assessment of the 5'S good practices, specifically, Sort, Set in Order, Shine, Standard and Sustain when respondents are grouped by Monthly income, since the t-values of 1.824, 0.589, 0.476, 0.925. and 1.403 have p-values greater than 0.05 significance level. Thus, the null hypothesis of no significant difference is not rejected. This indicated that the assessment of the 5'S good practices are the same across all income groups.

The result shows that there is no significant relationship between the monthly income and the assessment of 5'S of the respondents. According to Firman, and Ilyas (2021) although the customer satisfaction and implementation of 5'S is related to each other except the sustain aspect of 5'S the employees on the other hand were not and looking at the monthly income relationship with the 5'S there is significant relationship with it because the employees have the same perspective when it

comes to implementation of 5'S and is not bound by each monthly income range therefore the result is interpreted as not significant.

Table 15: Significant Difference between the Assessment of 5'S and Years of Employment

5 S's	Years of Employment			F-value	p-value	Interpretation
	Mean < 1 year	Mean 1 - 3 years	Mean 3-5 years			
Sort	2.791	2.819	2.7	0.596	0.555	Not Significant
Set in Order	2.891	2.825	2.75	1.143	0.328	Not Significant
Shine	3.017	3.057	2.95	0.536	0.588	Not Significant
Standard	2.725	2.698	2.583	0.931	0.401	Not Significant
Sustain	1.922	2.019	2.05	0.951	0.394	Not Significant

The table above shows the result of the relationship between the assessment of the respondent of 5'S and their years of employment the result shows There is no significant difference in the assessment of the 5'S good practices, specifically, Sort, Set In Order, Shine, Standard and Sustain when respondents are grouped by years of employment, since the F-values of 0.596, 1.143, 0.536, 0.931 and 0.951 have p-values greater than 0.05 significance level. Thus, the null hypothesis of no significant difference is not rejected. This indicated that the assessment of the 5'S good practices are the same across all years of employment groups.

In relation with the result this can be explained that different groups of different years of employment could have the same knowledge with the implementation of 5'S according to Nasir (2017) the management lack of incentive to apply 5'S and implement could hinder the organization to move forward as hotels lack of initiative to the employees in training them could also limit their potential when it comes to 5'S implementation but since the employees based on the result are mostly new the management of the hotel should adopt 5'S implementation and this could be an opportunity for the hotel management to provide a better service to the hotel guest and provide an efficient workplace.

5. CONCLUSION AND RECOMMENDATION

Summary of the Findings

1. The result of the age of the respondents in which most of the respondents age 21 to 30 years with 33 (68.75%) respondents, while the lowest number was 41 to 50 years old with 4 (8.333%) respondents. While the result of gender of the respondents the result shows that most of the respondents are male with 25 (52.083%) respondents followed by female respondents with 23 (47.917%) respondents. When it comes to educational attainment most of the respondents are college graduate with 37 (77.083%) respondents while the lowest number respondents are high school graduates with 2 (4.167%) respondents. The monthly income of the respondents shows that most of the respondents had a monthly income range of P10,001 to P20,000 with 39 (81.25%) respondents followed by respondents with an income range of P20,001 to P30,000 with 9 (18.75%) respondents. Lastly the result on years of employment of the respondents shows that most of the respondents had a year of employment with the hotel with less than 1 year with 23 (47.917%) respondents, while the lowest number was more than 3 to 5 years of experience with 4 (8.33%) respondents.

2. The result of the respondent assessment on 5'S shows that the highest mean can be found in The management frequently decide what objects are necessary and what is unnecessary (e.g office materials such as papers, office tools and housekeeping materials such as vacuum cleaner, polishing machine, cleaning brushes and cleaning chemicals) with a mean of 3.271 while the lowest mean can be found in The management practice red tagging which are items that has an uncertain ownership and lost and found items were stored for 30 days and after the period either sell the item, donated or discarded with a mean of 2.167 the overall mean for sort is 2.726 and is interpreted is often practiced. The result of Set in Order shows that the highest mean can be found in the management put all materials and equipment at a place allocated to them with proper label or signalization. (ex. Labelling the storage of cleaning materials) with a mean of 3.021 while the lowest mean can be found in Items that is used once in 6 to 12 months or more is stored at a distance from work station (e.g. swimming pool cleaning chemicals, scrubbing machine) interpreted as often practiced the overall mean of 2.851 suggest that the overall assessment for set in order (seiton) is often practiced. For shine the highest mean can be found in the management divides the total area in zones (number of rooms) and allocate responsibility for cleaning for each zone and is interpreted as often

practiced while the lowest mean can be found in the management displays cleaning schedule in a bulletin board and it interpreted as often practiced. The overall mean of 2.726 suggest that when it comes to shine (seiso) the management of the hotel is often practiced. The result of Standard shows that the highest mean can be found in the management uses floor paint marking to define working area, path, entrance/exit, safety equipment, cart/ trolley locations, etc. and is interpreted as often practiced while the lowest mean can be found in the management carry out periodic evaluation of 5S implementation. and is interpreted as sometimes practiced the overall mean of 2.701 suggest that the overall assessment for standardize (seiketsu) is often practiced. Lastly the result of sustain shows the highest mean can be found in the management rewards and recognize best performer employees of the 5S. and interpreted as sometimes practiced. While the lowest mean can be found in the management practice continuous improvement and plan for the implementation of 5S and is interpreted as sometimes practiced the overall mean of 1.975 suggest that the overall assessment for standardize (seiketsu) is sometimes practiced.

3. The result of the relationship between the profile of the respondents and the assessment of 5'S shows that all of the profile of the respondents such as age, gender, educational attainment, monthly income and years of employment does not have a significant relationship with all of the 5'S aspects such as Sort, Set in Order, Shine, Standard and Sustain since all of the p-value was above the level of significance of 0.05.

Conclusion

Based on the findings the researchers have concluded that most of the employees of the hotel age 21 to 30 with a gender of male, had an educational attainment of college graduate a monthly income range of P10,000 to P20,000 and is employed with the hotel for less than 1 year. The result of the 5'S assessment shows that the hotel employees often practiced Sort (Seiri), Set in Order (Seiton), Shine (Seiso) and Standard (Seiketsu) while the Sustain (Shitsuke) is sometimes practiced. The result of the relationship between the profile of the respondents and aspects of 5'S shows that there is no significant relationship.

Recommendation

Based on the findings of the research, the researchers have recommended the following based on the lowest mean for each of the aspect. The hotels should adapt red tagging for items that is lost and found, the hotel management should have a storage space for items that is used once in 6 to 12 months. The management of the hotel should implement a bulletin board in displaying the cleaning schedule. The management of the hotel should carry out periodic evaluation of 5S implementation and the management of hotel should practice continuous improvement and plan for the implementation of 5S.

REFERENCES

[1] Ahmed, M. (2018). Application of Lean Principles in Five-Star Hotels in Egypt. International Journal of Heritage, Tourism and Hospitality, 12(3 (Special Issue)), 181-194.

[2] Ashraf, S. R. B., Rashid, M. M., & Rashid, A. H. (2017). Implementation of 5S methodology in a food & beverage industry: A case study. International Research Journal of Engineering and Technology, 4(3), 1791-1796.

[3] Bharambe, V., Patel, S., Moradiya, P., & Acharya, V. (2020). "Implementation of 5S in Industry: A Review. Multidisciplinary International Research Journal of Gujarat Technological University, 2(1), 12-27.

[4] Bhatnagar, E., & Nim, D. (2019). Impact of housekeeping services and practices on customer satisfaction and repeat business. Prabandhan: Indian Journal of Management, 12(8), 46-57.

[5] Boakye-Kessie, V. A., Fatawu, A., & Boateng, R. (2018). Assessing Housekeeping Practices Among Some Two and Three-Star Hotels in Accra And Kumasi. ADRRI Journal of Arts and Social Sciences, 15(9), 1-34.

[6] Chandrayan, B., Solanki, A. K., & Sharma, R. (2019). Study of 5S lean technique: a review paper. International Journal of Productivity and Quality Management, 26(4), 469-491.

[7] Fernando, W. L. S. K., & Gamage, S. K (2018). Impact of Service Delivery on Customer Satisfaction of New Electricity Construction Projects with Special Reference To Ceylon Electricity Board.

[8] Firman, A., & Ilyas, G. B. (2021). The Effect of Kaizen Strategy on Customer Satisfaction: Empirical Study on Budget Hotels in Makassar City. Point Of View Research Management, 2(1), 01-09.

[9] Guzman, M. (2020, August 25). Hotel Housekeeping Duties: A Day in the Life. Retrieved January 05, 2021, from https://hoteltechreport.com/news/hotel-housekeeping-duties

[10] http://sigma.net.vn/en/quality-management-system/5s-methodology-was-implemented-at-mikazuki-spa-hotel-resort-danang-project.html

[11] https://asq.org/quality-resources/iso-9001#:~:text=Quality%20Glossary%20Definition%3A%20ISO%209001，meet%20customer%20and%20regulatory%20requirements.

[12] https://www.grandpalaceyercaud.com/5s-implemented-hotel-tour/

[13] Iqbala, T. (2020). Uncertain Supply Chain Management. 155–162 Growing Science Ltd. doi: 10.5267/j.uscm.2014.5.002.

[14] Kaufmann-Buhler, J. (2018). Housekeeping by Design: Hotels and Labor. Taylor & Francis.

[15] Kumar, M. H. (2020). A Study on ''Recent Trends in Housekeeping Department in Hotel Industry''. Mukt Shabd Journal ISSN NO : 2347-3150

[16] n.a. (2020). Department of Tourism (DOT) Accredited Tourism Establishments. Retrieved from: https://cavite.gov.ph/home/tag/department-of-tourism-dot-accredited-tourism-establishments/page/2/

[17] n.d. Hotels in Tagaytay City. Retrieved from: https://www.tagaytay.gov.ph/tourism.html

[18] n.d. Food / Hospitality / Tourism / Catering Average Salaries in Philippines 2022 retrieved from: http://www.salaryexplorer.com/salary-survey.php?loc=171&loctype=1&job=28&jobtype=1#:~:text=A%20person%20working%20in%20Food%20%2F%20Hospitality%20%2F%20Tourism%20%2F%20Catering%20in,%2C%20transport%2C%20and%20other%20benefits.

[19] Nasir, N. H. A. B. M. (2017). Factors contributing to the sustainability of 5s'program in Malaysia Hotel Industry (Doctoral dissertation, Universiti Teknikal Malaysia Melaka).

[20] PSA (2019). Employment Situation in July 2018. Philippine Statistics Authority (PSA). Retrieved from: https://psa.gov.ph/statistics/survey/labor-and-employment/labor-force-survey/title/Employment%20Situation%20in%20July%202018

[21] PSA (2019). Industry: Hotels and Restaurants. Philippine Statistics Authority (PSA). Retrieved from: https://psa.gov.ph/statistics/survey/data-by-industry/hotels

[22] Raneses, N. O., Cainghog, N. G., Tamayao, M. A. M., & Gotera, K. M. C. (2020). Consequences of Kaizen Practices in MSMEs in the Philippines: The Case of the Manufacturing Productivity Extension Program (MPEX). Workers, Managers, Productivity, 293.

[23] Sivakami, Sridivi (2020). functions of housekeeping department and inter relationship with other departments QUADRANT-III GLOSSARY. http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000827HE/P001226/M011986/ET/146250942718et.pdf

[24] Thapa, H. L., Gupta, A. K., & Qureshi, I. (2020) Implementation of 5s system in the small & medium scale industry. International Journal of Research Science & Management. ISSN: 2349-5197.

[25] Yaddanapudi, S., & Yaddanapudi, L. N. (2019). How to design a questionnaire. Indian journal of anaesthesia, 63(5), 335.