Importance of Computerized System to Reservation and Front Office Operations of Hotels in Batangas, Philippines

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Abstract

This study determines and analyzes the importance of computerized systems to the reservation and front office operations of mostly small to medium-size hotels in the Province of Batangas, Philippines. One hundred reservation and front office managers and employees from 10 hotels participated in the study by assessing the importance of their existing computerized system to their sales and reservation, guest registration, forecasting room status and room availability, through the use of a survey questionnaire developed by the researchers. The gathered data were analyzed with the aid of SPSS. Results show that the computerized system is very important to the pre-identified hotel operations or functions whether during peak or during lean season, although in most cases, the importance is more evident in peak season than in lean season. In general, respondents from the different groups of hotels find the computerized system important to their operations.

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Nevertheless, findings also reveal that computerized system is more important for hotels that are located along the coast than for those located off the coast, for hotels in the First District of Batangas than for those in the other three districts, and for four-star hotels than for three- or two-star hotels; but equally important for hotels regardless of size in terms of number of rooms. It is recommended for other hotels in Batangas, especially those along the coast and in the First District, to also establish or acquire a computerized system for their operations and for those with existing computerized systems to add important features for the improvement of their systems.

Keywords: hotel; computerized system; hotel reservation; front office operations; Batangas Philippines

1. Introduction

Hotel industry has become an important part of a much larger hospitality industry. The hotel industry comprises businesses that provide services, primarily accommodations, food and beverages, not only for those who travel for pleasure but also for business travelers [1]. This industry is continually changing. New hotels are rising to target specific age groups and lifestyles. Boutique hotels focus on high-end brand messaging, luxurious amenities, chic décor and hip cocktail lounges. Extended-stay hotels focus on low cost, business traveler essentials, comfort and security. Within this changing landscape, hotels are looking to differentiate their brand [2]. Hence, understanding and satisfying hotel patrons, customers or guests' need is always of paramount importance.

Due to the rapid changes in economy, society, politics, law, demography, technology, competition, and limited resources, there have been great shifts in customers' taste, demand and expectations. These shifts have become a major challenge to business practitioners since customers are surrounded by unlimited choices. Businesses, especially the service providers are facing an uphill battle to meet the need of their ever demanding customers since they can readily switch to other brands if they are not satisfied with any particular product. In today's highly competitive hospitality industry, hotel operators need to be vigilant and aware of such needs and demands of their patrons or guests [3].

In the hotel industry, the main indicator of success depends largely on occupancy rate. This rate is measured by the number of rooms booked divided by the number of rooms available [4]. The higher the number of room occupancy, the bigger will be the profits. Since hotel occupancy rate is seasonal in nature, it is common for hotels to record high occupancy rate during peak seasons [3].

Hotel occupancy rates depend both on external and internal factors. The external factors involve bigger issues such as the state of economy, technology, politics, demography and legislation. Ten years ago, the SARS and H1N1 scares and the issue of terrorism had badly affected tourism industry, especially hotel businesses. On the other hand, the internal factors relate to challenges in the hotel management such as quality of service, pricing and fees, variety and quality of food, accommodation, entertainment, facilities and location of the hotel. Poor performance in terms of low level of service quality contributes to problems in the internal factors. As such

there is a need to acknowledge both the internal and external factors that influence occupancy rate in order to gain a sustainable competitive advantage [3].

In the Philippines, hotel and restaurant industry is combination of institutions, supporting human resources, financing mechanisms, information systems, organizational structures that link institutions and resources that cater to the needs of domestic and foreign travelers. Institutions include government departments and agencies, private providers of hotel and restaurant services, educational institutions that provide training and other types of organizations responsible for the promotion of the industry. The local hotel industry is already in its mature stage characterized by overcapacity of available rooms and gradual standardization of prices across categories of services [5].

As tourism serves as the main market for hotel and accommodation services, increase in visitor traffic over the years resulted in a corresponding boom in the hotel industry. During the last decade, the industry has flourished even as it struggled to cope with difficult challenges. New hotels mushroomed in the capital while older hotels did their best to spruce-up both their interiors and upgrade services [5].

In every hotel or accommodation establishment, the front office is considered its heart. It is the principal area to be seen and experienced by the guests. Front office personnel are the ones who will welcome, handle and provide preliminary guest services. The front office is one of the most important departments of the hotel where guests come in contact with the hotel first. It is from this contact that the guests make their first and oftentimes lasting impression about the hotel [6].

The front office attends to room bookings, registration of hotel guests, guest relations assistance and other related matters. In small hotels or accommodation establishments the room sales and reservations are also handled by the front office. Hotels that deal with large volume of daily transactions in reservation, registration and other front office functions will certainly find manual system to be very laborious and time consuming. Thus, a computerized system like the so-called Property Management System is employed. The computer software used for this purpose varies among hotels depending on the size and requirements of their operations. Software providers usually do a need analysis before designing a computer system that is customized to particular hotel operations. This of course entails a substantial amount of investment because the hotel not only spends for the cost of the software but also the hardware that needs to be installed in various work stations [6].

1.1. Background of the study

Reservation system is an in-house system that can keep close track of reservations. System can tightly control room availability data and automatically generate many reservation-related reports. The biggest advantage of reservation system is the improved accuracy of room availability and rate information. As reservation agents put reservations and reservation modifications or cancellations into the system, the inventory of the available rooms is immediately updated. In addition, front desk transactions involving no-show, early departure or walk-in will immediately update the computer's room availability [7].

Many hotels now use computer systems in their front office operations, especially on reservations, to replace manual or labor-intensive systems. Manual booking is not easy to use because of its complicated steps and can cause many problems and leads to poor front office operations such as high errors, incorrect room rate calculations and missing documents [7].

A computer system consists of three interrelated and interdependent components namely hardware, software and users. The three common computer systems used in the hotel industry are the Property Management System (PMS), which is a generic term used to describe the application of computer hardware and software in managing the interface of various departments of a hotel; the Centralized Reservation System (CRS), which is a computerized reservation system for a chain or group of hotels to enable them to sell their rooms effectively; and the Global Distribution System (GDS), which is a computer-based systems linked globally through satellites and which is used for hotel reservations, airline reservations and other travel arrangements [8].

Agents making reservations with the computerized reservation system can easily handle complex operations such as routing instructions and split charges, shared reservations, frequent flyer and loyalty program memberships, negotiated rates, and rate discounts [7]. According to Brooks and Kasavana [9], the important things to consider in choosing a computerized hotel booking system are as follows:

- *Security.* Hotel booking system software must always be equipped with a security system to ensure safety and privacy. This is to safeguard information given by the guests, so that it won't be leaked or corrupted.

- *Ease of use.* In choosing a hotel booking system, there is a need to consider the software's ease of use. The graphical representation or interface of the application must be easy to comprehend. Complicated interfaces may lead to mistakes in reservation, such as getting the dates wrong or placing a guest in a smoking room when he asked for a non-smoking one.

- *Convenience.* Hotel booking systems need to be incorporated with online reservations. This convenient reservation option must be available to potential guests. This can help them save time by logging in to a hotel's website and choosing the amenities and services they need.

- *Effective management.* With the use of computerized systems, hotel management can become an easier task. Hotel booking software is equipped with an option that shows the available rooms at any given time. This makes dealing with room accommodation and reservations effective. It can also prevent issues like double booking.

- *Price.* It is also best to consider the cost of getting a hotel booking system. Most of these applications may be a bit pricey depending on their features. There are software manufacturers that offer customization of booking resources to adapt to hotel management needs.

A computerized system is vital, especially due to the increasing number of competing hotels available. Choosing to utilize a computerized hotel booking system will raise the efficiency of the hotel. This may result to higher occupancy rate, higher guest satisfaction and more revenue for the hotel [7].

1.2. Objectives and significance of the study

A manual system is definitely not anymore appropriate for multiple-starred hotels in the cities or metropolitan areas. However, this may not be true for hotels and accommodation establishments in the countryside or the provinces. In this view, this study was conducted to determine the importance of having computerized systems in hotels and accommodation establishments of Batangas Province via assessment of the existing system in selected hotels. In particular, this study aimed to:

- assess the importance of computerized systems of selected hotels in the Province of Batangas during lean and peak seasons as regards sales and reservation, guest registration, forecasting room status, and room availability; and
- determine and analyze the significant differences on respondents' assessments when grouped according to the geographical location, political district location, star-system classification, and number of rooms of their hotels.

This study could contribute valuable information regarding the utilization of computerized systems that will benefit the hotel industry outside metropolitan areas especially small and medium accommodation establishments in the provinces. The information can be used by hotel operators to generate innovative ideas for further improvement of their sales and reservation systems and front office operations that will lead to better customer service, superior guest satisfaction and higher hotel occupancy rate.

2. Research Methodology

This study is a descriptive-survey type of research. A questionnaire, developed by the researchers, was used as the data gathering instrument. The questionnaire has two parts: the first part determines the categorization of the respondent's hotel as to its geographical location, political district location, star-system classification, and number of rooms; while the second part assesses the importance of using computerized system in terms of sales and reservation, guest registration, forecasting room status, and room availability. Such assessment tool employs a four-point Likert scale. Faculty and research experts of Batangas State University and industry experts in the field of hospitality management participated in the validation process for the questionnaire. A trial run for the validated questionnaire was also conducted utilizing 30 respondents from three hotels in the adjacent Province of Laguna and the reliability analysis resulted to a reliability coefficient or Cronbach's alpha of .9273.

Purposive or judgment sampling was use in selecting the respondents for this study. The respondents are reservation and front office managers and staff of selected hotels in Batangas Province who are using computerized system. One hundred employees, 10 from each of the 10 selected hotels, were convinced to participate to the study. Some of them were given the questionnaire during the time of survey at their establishments and returned the answered questionnaire after about 10 to 15 minutes; while others, who were not around during the survey, were given questionnaire through their officemates and the filled-in questionnaires were retrieved after a week. Before the actual administration of survey questionnaire, permission to conduct the survey was sought from the concerned hotel official or authority with the condition of anonymity of hotels and of respondents.

The SPSS was utilized in the analysis of the data gathered. The interpretation of the mean is based on the following scale:

Mean	Interpretation
3.50 – 4.00	Fully agree
2.50 – 3.49	Agree to some extent
1.50 – 2.49	Disagree to some extent
1.00 – 1.49	Fully disagree

Although longitudinal data may be a better option for this type of study, cross sectional data were used due to time and other constraints for gathering data from participating hotels. This, and some other limitations like not using a more comprehensive data gathering instrument and involvement of lesser number of hotels and respondents, could however suggest and encourage directions or guidelines for future studies of similar nature.

3. Results and Discussion

Table 1 shows the distribution of the respondents and of the hotels as to its geographical location, political district location, star-system classification, and number of rooms.

Table 1. Distribution of respondents and of hotels per category

Category	Number of Respondents (n)	Number of Hotels	Percent
Geographical Location			
Along the coast/beach	50	5	50
Off the coast/beach	50	5	50
Political District Location			
First District	30	3	30
Second District	20	2	20
Third District	30	3	30
Fourth District	20	2	20
Star-System Classification			
Two-Star	20	2	20
Three-Star	40	4	40
Four-Star	40	4	40
Number of Rooms			
Less than 50 rooms	20	2	20
50 to 99 rooms	50	5	50
100 rooms or more	30	3	30

As seen in Table 1, the participating hotels in Batangas are medium-size hotels with 50% having 50 to 99 rooms only and most have three- or four-star hotel grading or classification, which are scattered in the four districts of the province and half are along the coastlines while the other half are in the downtowns or suburbs.

3.1. Importance of computerized system to reservation and front office operations

Table 2 shows how important the computerized system is to the respondents as regards sales and reservation.

Table 2. Assessment on the importance of computerized system to hotel sales and reservation

during lean and peak seasons, n = 100

Sales and Reservation The computerized system is important to us because …	Lean Season		Peak Season	
	Mean	SD	Mean	SD
1. It makes handling of inquiries on hotel facilities and services as well as room rates and arrangements easier.	3.80	.402	3.91	.288
2. It leads to effective and efficient system of receiving, processing and confirming reservations.	3.81	.394	3.87	.338
3. It gives an overview of the type of guests and type of rooms that sell most and this can be use for designing marketing strategies.	3.70	.461	3.81	.394
4. It produces figures or statistics like number of guests per category, room nights, and occupancy rate that serve as bases for future management decisions relating to marketing thrusts.	3.81	.394	3.81	.394
5. It provides a sound basis for room allocation and for making sales audit.	3.77	.423	3.94	.239
Overall	3.78	.267	3.87	.222

In general, the respondents fully agree that their computerized system is important to hotel sales and reservation whether during peak or lean season with the lowest mean of 3.70 to as high as 3.94. However, as shown in Table 2, the importance of computerized system to their sales and reservation is much evident during peak season than during lean season. More particularly, *computerized system as provider of sound basis for room allocation and for making sales audit* is very much important during peak season than during lean season.

Table 3 shows the importance of computerized system to the respondents in handling guest registration. With mean ranging from 3.75 to 3.94, the respondents fully agree that the computerized system is important to hotel guest registration.

Table 3. Assessment on the importance of computerized system to hotel guest registration

during lean and peak seasons, n = 100

Guest Registration The computerized system is important to us because …	Lean Season		Peak Season	
	Mean	SD	Mean	SD
1. It provides a detailed and updated guest list right after each registration.	3.78	.416	3.94	.239
2. It makes verification of reservation details and validation of information given easier.	3.87	.338	3.81	.419
3. It helps in preparing group movement information and rooming list in case of group registration.	3.82	.411	3.87	.338
4. It aids in the preparation of guest folio, a document where all guest charges are entered.	3.84	.395	3.75	.435
5. Bills for departing guests can be prepared in advance.	3.77	.423	3.76	.429
Overall	3.82	.266	3.83	.210

As to importance during peak or lean season, it can be seen from Table 3 that the *importance of computerized system regarding provision of detailed and updated guest list* is more evident during peak season than during lean season but the *importance of computerized system on the preparation of guest folio* is less evident during peak season than during lean season. This makes the overall assessments on the importance of computerized system to hotel guest registration almost the same for both peak and lean seasons.

In Table 4 the respondents' assessments on the importance of computerized system to forecasting room status is presented. With regards to such importance the respondents generally expressed their full agreement, as indicated by mean of 3.74 to 3.89.

Table 4. Assessment on the importance of computerized system to forecasting hotel room status
during lean and peak seasons, n = 100

Forecasting Room Status The computerized system is important to us because …	Lean Season		Peak Season	
	Mean	SD	Mean	SD
1. Room status of the newly occupied room can be changed at once in the room status bulletin.	3.85	.386	3.87	.418
2. Forecast of room occupancy can be prepared immediately.	3.74	.463	3.86	.349
3. Monitoring of forecast against actual occupancy is easier.	3.83	.378	3.79	.409
4. Housekeeping and other departments can have easy access on room status information.	3.84	.368	3.86	.349
5. Room status report is automatically generated and updated.	3.89	.314	3.84	.368
Overall	3.83	.266	3.84	.216

Table 4 further indicates the importance of computerized system to forecasting room status is almost the same during peak or lean season with the exception of importance on the *immediate preparation of the forecast on room occupancy*, at which the importance is more evident during peak season than during lean season.

Table 5 confirms the importance of computerized system to some functions regarding room availability. The mean values of 3.78 to 3.91 signify that the respondents fully agree on the importance of computerized system to room availability.

Table 5. Assessment on the importance of computerized system to hotel room availability
during lean and peak seasons, n = 100

Room Availability The computerized system is important to us because …	Lean Season		Peak Season	
	Mean	SD	Mean	SD
1. The number of rooms available can be determined at once.	3.78	.416	3.89	.314
2. Room transfer can be done quickly upon request.	3.80	.402	3.86	.349
3. Room blockings and assignments can be done with greater ease.	3.86	.349	3.88	.327
4. Double booking is avoided.	3.81	.394	3.90	.302
5. Daily room occupancy report can be prepared and submitted on time.	3.85	.359	3.91	.288
Overall	3.82	.278	3.89	.171

It can also be seen from Table 5 that the importance of computerized system to room availability is more evident during peak season than during lean season but the difference is not too much. Nevertheless, the highest mean difference between the importance during peak or lean season is on the *immediate determination of the number of rooms available*.

Table 6 summarizes the importance of computerized system to the pre-identified hotel operations or functions, i.e. sales and reservation, guest registration, forecasting room status, and room availability. Generally, the respondents fully agree on the importance of computerized system to the reservation and front office operations of selected hotels in Batangas Province as implied by the mean ranging from the lowest 3.78 for *sales and reservation* during lean season to the highest 3.89 for *room availability* during peak season. The highest mean as regards lean season is 3.83 for *forecasting room status* while the lowest mean as regards peak season is also 3.83 for *guest registration* which further indicates that in totality, the computerized system is clearly seen by the respondents as more important during peak season than during lean season.

Table 6. Assessment on the importance of computerized system to Batangas hotel reservations and front office operations during lean and peak seasons, n = 100

Hotel Operations / Functions	Lean Season		Peak Season	
	Mean	SD	Mean	SD
Sales and Reservation	3.78	.267	3.87	.222
Guest Registration	3.82	.266	3.83	.210
Forecasting Room Status	3.83	.266	3.84	.216
Room Availability	3.82	.278	3.89	.171
Overall	3.81	.237	3.86	.164

3.2. Differences on the respondents' assessments regarding the importance of computerized system

Table 7 presents the mean differences on the assessments regarding the importance of computerized system to reservation and front office operations during lean season when the respondents are grouped according to the geographical location of their hotels.

As shown in Table 7, the assessments of respondents from hotels along the coast regarding the importance of computerized system to all of the pre-identified hotel operations or functions i.e., sales and reservation, guest registration, forecasting room status, and room availability, during lean season are higher than the assessments of those from off-the-coast hotels. Further, results of an independent samples t-test employing .05 level of significance indicate that these differences on the assessments of the two groups of respondents i.e., those from hotels along the coast and those from hotels off the coast, are significant. These imply that during lean season the computerized system is more important for Batangas hotels along the coast than for those hotels off the coast.

Table 7. Results of t-test on the respondents' assessments on the importance of computerized system during lean season when grouped by geographical location, α = .05

Hotel Operations / Functions	Geographical Location	n	Mean	t	p
Sales and Reservation	Along the coast / beach	50	3.84	2.381	.019
	Off the coast / beach	50	3.72		
Guest Registration	Along the coast / beach	50	3.87	2.142	.035
	Off the coast / beach	50	3.76		
Forecasting Room Status	Along the coast / beach	50	3.89	2.388	.019
	Off the coast / beach	50	3.77		
Room Availability	Along the coast / beach	50	3.88	2.201	.030
	Off the coast / beach	50	3.76		
Overall	Along the coast / beach	50	3.87	2.602	.011
	Off the coast / beach	50	3.75		

Table 8 presents the mean differences on the assessments regarding the importance of computerized system to reservation and front office operations during peak season when the respondents are grouped according to the geographical location of their hotels. It also shows that there is no significant difference between the assessments of those from along-the-coast hotels and those from off-the-coast hotels during peak season in all the pre-identified hotel operations or functions as indicated by p-values that are all greater than .05. This was the result of an independent samples t-test using .05 level of significance, the descriptive statistics of which further shows that for all areas of hotel operations the mean assessments of the two groups of respondents are almost the same. This implies that the computerized system is equally important to both along-the-coast and off-the-coast hotels in Batangas during peak season.

Table 8. Results of t-test on the respondents' assessments on the importance of computerized system during peak season when grouped by geographical location, α = .05

Hotel Operations / Functions	Geographical Location	n	Mean	t	p
Sales and Reservation	Along the coast / beach	50	3.89	1.080	.283
	Off the coast / beach	50	3.84		
Guest Registration	Along the coast / beach	50	3.82	-.284	.777
	Off the coast / beach	50	3.83		
Forecasting Room Status	Along the coast / beach	50	3.88	1.878	.063
	Off the coast / beach	50	3.80		
Room Availability	Along the coast / beach	50	3.90	.465	.643
	Off the coast / beach	50	3.88		
Overall	Along the coast / beach	50	3.87	1.007	.316
	Off the coast / beach	50	3.84		

Table 9 presents the mean differences on the assessments regarding the importance of computerized system to reservation and front office operations during lean season when the respondents are grouped according to the political district location of their hotels.

Table 9. Results of ANOVA on the respondents' assessments on the importance of computerized system during lean season when grouped by political district location, α = .05

Hotel Operations / Functions	Political District Location	n	Mean	F	p
Sales and Reservation	First District	30	3.98	12.358	.000
	Second District	20	3.66		
	Third District	30	3.75		
	Fourth District	20	3.63		
Guest Registration	First District	30	3.99	8.985	.000
	Second District	20	3.70		
	Third District	30	3.80		
	Fourth District	20	3.69		
Forecasting Room Status	First District	30	3.99	7.711	.000
	Second District	20	3.69		
	Third District	30	3.82		
	Fourth District	20	3.74		
Room Availability	First District	30	3.99	7.221	.000
	Second District	20	3.71		
	Third District	30	3.79		
	Fourth District	20	3.71		
Overall	First District	30	3.99	12.287	.000
	Second District	20	3.69		
	Third District	30	3.79		
	Fourth District	20	3.69		

In all pre-identified hotel operations or functions, results of one-way ANOVA at .05 level of significance shown in Table 9 indicate that there are significant differences on the assessments regarding the importance of computerized system during lean season made by the four groups of respondents i.e., those from first-district, second-district, third-district, and fourth-district hotels. Looking at the mean assessments of the four groups, it can be deduced that the significant mean differences were due to the very high mean assessments given by respondents from first-district hotels. This is confirmed by the results of Scheffe test presented in Table 9a which imply that the computerized system is more important for hotels in the First District of Batangas than for hotels in the three other districts.

Table 10 presents the mean differences on the assessments regarding the importance of computerized system to reservation and front office operations during peak season when the respondents are grouped according to the political district location of their hotels.

As shown also in Table 10, there are significant differences among the assessments of the four groups of respondents during peak season regarding the importance of computerized system to sales and reservation, forecasting room status and room availability but there is no significant difference on their assessments on the importance of computerized system to guest registration. These are the results of a one-way ANOVA using .05 level of significance.

Table 9a. Results of multiple comparisons of assessments on the importance of computerized system during lean season by political district location using Scheffe Test, $\alpha = .05$

Hotel Operations / Functions	Political District Locations Compared	p
Sales and Reservation	First District vs. Second District	.000
	First District vs. Third District	.003
	First District vs. Fourth District	.000
	Second District vs. Third District	.579
	Second District vs. Fourth District	.982
	Third District vs. Fourth District	.332
Guest Registration	First District vs. Second District	.001
	First District vs. Third District	.024
	First District vs. Fourth District	.001
	Second District vs. Third District	.554
	Second District vs. Fourth District	.999
	Third District vs. Fourth District	.471
Forecasting Room Status	First District vs. Second District	.001
	First District vs. Third District	.059
	First District vs. Fourth District	.006
	Second District vs. Third District	.332
	Second District vs. Fourth District	.935
	Third District vs. Fourth District	.728
Room Availability	First District vs. Second District	.003
	First District vs. Third District	.031
	First District vs. Fourth District	.003
	Second District vs. Third District	.734
	Second District vs. Fourth District	1.000
	Third District vs. Fourth District	.734
Overall	First District vs. Second District	.000
	First District vs. Third District	.004
	First District vs. Fourth District	.000
	Second District vs. Third District	.403
	Second District vs. Fourth District	1.000
	Third District vs. Fourth District	.426

Further analysis using Scheffe test presented in Table 10a reveals that regarding the assessment on the importance of computerized system during peak season to sales and reservation, forecasting room status and in

overall, the significant mean differences are between first-district and second-district hotels and between first-district and fourth-district hotels; while for assessments on the importance to room availability, the significant mean difference is only between first-district and fourth-district hotels.

Table 10. Results of ANOVA on the respondents' assessments on the importance of computerized system during peak season when grouped by political district location, α = .05

Hotel Operations / Functions	Political District Location	n	Mean	F	p
Sales and Reservation	First District	30	3.99	7.450	.000
	Second District	20	3.79		
	Third District	30	3.88		
	Fourth District	20	3.74		
Guest Registration	First District	30	3.88	2.633	.054
	Second District	20	3.79		
	Third District	30	3.86		
	Fourth District	20	3.73		
Forecasting Room Status	First District	30	3.97	7.294	.000
	Second District	20	3.73		
	Third District	30	3.85		
	Fourth District	20	3.76		
Room Availability	First District	30	3.96	4.625	.005
	Second District	20	3.84		
	Third District	30	3.91		
	Fourth District	20	3.80		
Overall	First District	30	3.95	8.613	.000
	Second District	20	3.79		
	Third District	30	3.88		
	Fourth District	20	3.76		

Looking at the mean assessments of the different groups, also in Table 10a, it can be found that respondents from first district hotels gave higher assessments than those from second-district and fourth-district hotels which imply that computerized system during peak season is more important for hotels in the First District of Batangas than for hotels in the Second District and Fourth District.

Table 10a. Results of multiple comparisons of assessments on the importance of computerized system during peak season by political district location using Scheffe Test, α = .05

Hotel Operations / Functions	Political District Locations Compared			p
Sales and Reservation	First District	vs.	Second District	.010
	First District	vs.	Third District	.206
	First District	vs.	Fourth District	.001
	Second District	vs.	Third District	.506
	Second District	vs.	Fourth District	.895
	Third District	vs.	Fourth District	.136

Forecasting Room Status	First District	vs.	Second District	.001
	First District	vs.	Third District	.184
	First District	vs.	Fourth District	.006
	Second District	vs.	Third District	.205
	Second District	vs.	Fourth District	.972
	Third District	vs.	Fourth District	.448
Room Availability	First District	vs.	Second District	.096
	First District	vs.	Third District	.658
	First District	vs.	Fourth District	.012
	Second District	vs.	Third District	.571
	Second District	vs.	Fourth District	.895
	Third District	vs.	Fourth District	.168
Overall	First District	vs.	Second District	.004
	First District	vs.	Third District	.283
	First District	vs.	Fourth District	.000
	Second District	vs.	Third District	.246
	Second District	vs.	Fourth District	.937
	Third District	vs.	Fourth District	.062

Table 11 presents the mean differences on the assessments regarding the importance of computerized system to reservation and front office operations during lean season when the respondents are grouped according to the star-system classification of their hotels.

Table 11. Results of ANOVA on the respondents' assessments on the importance of computerized system during lean season when grouped by star-system classification, $\alpha = .05$

Hotel Operations / Functions	Star-System Classification	n	Mean	F	p
Sales and Reservation	Two-Star	20	3.80	3.654	.030
	Three-Star	40	3.70		
	Four-Star	40	3.85		
Guest Registration	Two-Star	20	3.81	1.581	.211
	Three-Star	40	3.77		
	Four-Star	40	3.87		
Forecasting Room Status	Two-Star	20	3.83	1.739	.181
	Three-Star	40	3.78		
	Four-Star	40	3.89		
Room Availability	Two-Star	20	3.82	.630	.535
	Three-Star	40	3.79		
	Four-Star	40	3.86		
Overall	Two-Star	20	3.82	2.205	.116
	Three-Star	40	3.76		
	Four-Star	40	3.87		

The conducted one-way ANOVA utilizing .05 level of significance revealed that except for sales and reservation, there is no significant difference among the assessments of the three groups of respondents i.e., those from two-star, three-star or four-star hotels, regarding the importance of computerized system for hotel operations or functions during lean season. Scheffe test shown in Table 11a further reveals that the significant mean difference on the assessments of the importance of computerized system to sales and reservation is only between three-star and four-star hotels. Since the respondents from four-star hotels gave higher assessments than those from three-star hotels, the implication is that the computerized system is more important in terms of sales and reservation for four-star hotels than for three-star hotels in Batangas during lean season.

Table 11a. Results of multiple comparisons of assessments on the importance of computerized system during lean season by star-system classification using Scheffe Test, α = .05

Hotel Operation / Function	Star-System Classifications Compared	p
Sales and Reservation	Two-Star vs. Three-Star	.340
	Two-Star vs. Four-Star	.781
	Three-Star vs. Four-Star	.032

Table 12 presents the mean differences on the assessments regarding the importance of computerized system to reservation and front office operations during peak season when the respondents are grouped according to the star-system classification of their hotels.

As further shown in Table 12, a one-way ANOVA with .05 level of significance revealed that there is no significant difference among the assessments of the three groups of respondents on the importance of computerized system to the pre-identified hotel operations or functions during peak season. This implies that, during peak season, the computerized system is equally important to participating Batangas hotels regardless of their star-system classification.

Table 12. Results of ANOVA on the respondents' assessments on the importance of computerized system during peak season when grouped by star-system classification, α = .05

Hotel Operations / Functions	Star-System Classification	n	Mean	F	p
Sales and Reservation	Two-Star	20	3.83	2.244	.111
	Three-Star	40	3.83		
	Four-Star	40	3.93		
Guest Registration	Two-Star	20	3.79	.566	.570
	Three-Star	40	3.82		
	Four-Star	40	3.85		
Forecasting Room Status	Two-Star	20	3.80	2.764	.068
	Three-Star	40	3.81		
	Four-Star	40	3.91		
Room Availability	Two-Star	20	3.85	1.668	.194
	Three-Star	40	3.87		

	Four-Star	40	3.93		
Overall	Two-Star	20	3.82	2.616	.078
	Three-Star	40	3.83		
	Four-Star	40	3.90		

Table 13 presents the mean differences on the assessments regarding the importance of computerized system to reservation and front office operations during lean season, while Table 14 presents the mean differences on the assessments during peak season, when the respondents are grouped according to the number of rooms of their hotels.

Table 13. Results of ANOVA on the respondents' assessments on the importance of computerized system during lean season when grouped by number of rooms, α = .05

Hotel Operations / Functions	Number of Rooms	n	Mean	F	p
Sales and Reservation	Less than 50 rooms	20	3.80	.437	.647
	50 to 99 rooms	50	3.79		
	100 rooms or more	30	3.74		
Guest Registration	Less than 50 rooms	20	3.80	.582	.561
	50 to 99 rooms	50	3.84		
	100 rooms or more	30	3.78		
Forecasting Room Status	Less than 50 rooms	20	3.82	.372	.690
	50 to 99 rooms	50	3.85		
	100 rooms or more	30	3.80		
Room Availability	Less than 50 rooms	20	3.78	1.265	.287
	50 to 99 rooms	50	3.86		
	100 rooms or more	30	3.77		
Overall	Less than 50 rooms	20	3.80	.719	.490
	50 to 99 rooms	50	3.84		
	100 rooms or more	30	3.77		

Results of one-way ANOVA with .05 level of significance showed that there is no significant difference among the assessments of the three groups of respondents i.e., those from hotels with less than 50 rooms, from hotels with 50 to 99 rooms and from hotels with 100 rooms or more, regarding the importance of computerized system to pre-identified hotel operations or functions during lean season (Table 13) and also during peak season (Table 14). In other words, when the respondents are grouped according to the number of rooms of their hotels, their responses or the mean assessments are almost the same. This implies that, whether during lean season or during peak season and regardless of the number of rooms of the participating Batangas hotels, the computerized system is equally important for the said hotels.

Table 14. Results of ANOVA on the respondents' assessments on the importance of computerized system during peak season when grouped by number of rooms, α = .05

Hotel Operations / Functions	Number of Rooms	n	Mean	F	p
Sales and Reservation	Less than 50 rooms	20	3.83	.823	.442
	50 to 99 rooms	50	3.90		
	100 rooms or more	30	3.85		
Guest Registration	Less than 50 rooms	20	3.84	.099	.906
	50 to 99 rooms	50	3.83		
	100 rooms or more	30	3.81		
Forecasting Room Status	Less than 50 rooms	20	3.81	.386	.681
	50 to 99 rooms	50	3.86		
	100 rooms or more	30	3.84		
Room Availability	Less than 50 rooms	20	3.85	.817	.445
	50 to 99 rooms	50	3.89		
	100 rooms or more	30	3.91		
Overall	Less than 50 rooms	20	3.83	.339	.714
	50 to 99 rooms	50	3.87		
	100 rooms or more	30	3.85		

4. Conclusions and Recommendations

Based on findings or results of the study, the following conclusions were drawn:

4.1. On the importance of computerized system to reservation and front office operations

- Computerized system is very important to hotel sales and reservation during both peak and lean seasons although the importance is much evident during peak than during lean season, especially in the provision of sound basis for room allocation and for sales audit.

- Computerized system is also very important for handling hotel guest registration during both peak and lean seasons and such importance is equally evident for both seasons. However, its importance in the provision of detailed and updated guest list is more evident during peak season while its importance on the preparation of guest folio is more evident during lean season.

- Computerized system is again very important for forecasting room status during both peak and lean seasons and the importance is also equally evident for both seasons except on the immediate preparation of the forecast on room occupancy which is more evident during peak season.

- Computerized system is yet again very important with regards to room availability during both peak and lean seasons and the importance is a little more evident during peak than during lean season particularly on the immediate determination of the number of rooms available.

- In summary, the computerized system is very important for the hotels in Batangas on their reservation and front office operations, specifically on sales and reservation, guest registration, forecasting room status and room availability, during both peak and lean seasons. The greatest

importance, however, is placed on room availability during peak season and on forecasting room status during lean season.

4.2. On the differences among the assessments of the different groups of respondents

- During lean season, computerized system is more important for those hotels in Batangas that are located along the coast than for those hotels that are located off the coast as regards all reservation and front office operations. But during peak season, computerized system is equally important for those along-the-coast and off-the-coast hotels also regarding all reservation and front office operations.

- During lean season, computerized system is more important for those hotels in the First District of Batangas than for those hotels in the Second District, Third District and Fourth District as regards all reservation and front office operations. During peak season, computerized system is more important for those hotels in the First District than for those hotels in Second District and Fourth District in overall assessment and as regards sales and reservation and forecasting of room status; also more important for those hotels in the First District than for those hotels in the Fourth District as regards room availability; and equally important for hotels regardless of political district location as regards guest registration.

- During lean season, computerized system is more important for four-star hotels than for three-star hotels in Batangas as regards sales and reservation but equally important for Batangas hotels regardless of the star-classification given to them as regards guest registration, forecasting room status, room availability and in overall assessment. During peak season, computerized system is equally important for Batangas hotels regardless of their star-classification as regards all reservation and front office operations.

- During both peak and lean season, computerized system is equally important for Batangas hotels regardless of their number of rooms as regards all reservation and front office operations.

In view of the above findings and conclusions, the following recommendations are given:

- Since computerized system is very important for hotels whether during peak or lean season, other hotels in the Province of Batangas regardless of location, classification and size should be encouraged to set-up or acquire their own computerized system of reservation and front office operations. More encouragement on the establishment of computerized system may particularly be made for hotels that are along the coast, in the First District of Batangas, and/or classified as four-star.

- Participating hotels in this study should still consider how their computerized system can be further enhanced, adding important features that are not yet contained in their existing system.

- Further studies on the existing computerized systems of Batangas hotels may be made having longitudinal data, utilizing varied data gathering tools, encouraging the participation of more hotels, and/or focusing on hotel guests' satisfaction or on problems being encountered.

- Similar studies may also be made on hotels and accommodation establishments in other provinces or countryside regions.

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