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Role of Industry Technology System in Hospitality Industry

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Abstract

Purpose: This paper aims to the Hospitality industry utilizes various systems and technologies in order to serve guests more efficiently and effectively.The system include work group information systems,electronic mail,organizational information systems,and global information systems.
Hospitality information systems are a collection of components that work together to provide information help in the operations and management of a hospitality organization.in the hospitality industry, information technology systems are primarily computers and telephone systems,but can be software applications and hardware that are used in a variety of locations in various sectors of the industy .This study examines the technology used in the hospitality industry today.

Design/Methodology/approach: This study is based on secondary data collected from Hospitality reference books,web articles and hotel websites

Findings: This study aims to find out the how the technology helping the hotel industry to improve the quality of the workforce and increasing the Guest satisfaction in hospitality industry

Research limitations/Implications: A well defined knowledge related to industry technology will be shared to the hospitality industry community.

Practical implications: Technical improvement in the field of Hotel operations leads to a higher revenue generation in hotel industry and also possible to attract new guest segmentation in the hospitality industry.

Originality/Value: This study helps to improve the strong presence of the industry technology in the hospitality industry.It will also help the future generations to conduct advanced research in this segment.

Keywords: Hospitality information system,application service provider,computer information system,information technology,central reservation system,customer relationship management,Data base management system,front of the house operations,point of sale system,property management system,Personal Digital Assistance

1. Introduction

In the hospitality industry,information systems make use of computers and telephone systems to provide guests services,to make business process more effective,and to perform decision- making functions for managers.The computers,communication equipments and other technology used in information systems are called information technology.computer information systems give hospitality managers an advantage because they reduce the chance of error.These systems allow managers to control an entire property at the touch of a button.For example,computerized systems can now help monitor work as it is being done,thereby warning associates about obvious or likely errors before those errors cascade to create

additional errors elsewhere.in housekeeping operations,housekeepers can be notified in advance of guest request before guests check into the hotel.This helps create a comfortable and predictable environment for guests and at the same time it saves time and provides efficiency in the housekeeping department.
The hospitality industry utilizez various system and technologies in order to serve guests more efficiently and effectively . The systems include work group information systems,electronic mail,organizational information systems,and global information systems.

2. Study Objectives

To identify the primary use for a PMS
To know the different areas of hotel information technology systems
To state the purpose of Hospitality industry technology
To know how the technology influence catering
To understand the criteria need to be considered when choosing a POS system
To define the guest services solutions
To Know the benefits of using a Personal Digital Assistants

3. Review of Literature

MICROS System is one of the global leaders in hospitality technology,specializing in producing and selling a variety of hospitality management systems and POS system .The POS system help restaurants,hotels,resorts,casinos,stadiums,airports, the entertainment industry to manage product cost,customer price sensitivity and employees and to maintain margin.Their mission is to develop products for the hospitality industry that will help the industry increase efficiency,reduce operating costs,and raise the level of service for customers.
Founded in 1977,Micros has served the industry more than twenty years.combined with its international subsidiary,Micros Fidelio,the company has offices all around the world,including Asia Pacific,Europe,Africa,Middle east,and latin America ,quarters in colimbia,Maryland.The companies have installed more than 120000 systems for the hospitality industry in 130 countries.
For the lodging sector of the hospitality industry,Micros offers a centralized reservation system and customer information system.Their table service restaurant customers have a variety of technological products from which to choose that help make running their business easier and faster with fewer errors.
Four different categories of software products are offered: POS systems,enterprise office systems,restaurant operations and corporate applications.
The newest technology they offer is the 9700 Hospitality Management System.This POS system combines front end and back office restaurant service to cut down time,especially in large business.The 9700 HMS can run reports and automate system utilities while simultaneously being used by personnel.
The system runs on the Microsoft Windows NT application and employs structured query language ,an industry standard method for accessing database information,so data can be stored with most available software packages.
Another feature for restaurants is product management software,which allows operators to customize their application screens to fit their requirements.They can tailor file content or form names and change screen layouts.
MICROS has developed a software program called Labor management that allows hospitality businesses to maintain human resource files,support payroll processing and generate staff schedules for multilevel

operations.
MICROS systems has become a profitable industry leader in hospitality technology.The companys approach to global business opportunities has definitely contributed to its expansion.Today MICROS offers its products in multiple languages and transalates the price of its products into multiple currencies.

4. METHODOLOGY

This study is based on secondary data collected from Hospitality reference books,web articles and hotel websites

5. Theorectical Background

The hospitality industry utilizes various systems and technologies in order to serve guests more efficiently and effectively.The systems include work group information systems,organizational information system,and global information systems.

5.1 Work Group information system

Many hospitality businesses today have work group information systems.
These systems allow groups of associates within a department to share data and information that help manage the departments functions.These system sometimes utilize a local area network (LAN) in which the employees of a business can communicate and work with one another simultaneously via different computers within a complex or campus of buildings.LANs allow a large number of people to communicate and exchange messages within seconds.
These LAN connections are adopted by large business and,in conjuction with wide area network connections,allow franchises to link with one another over considerable distances.In large franchises,many people are trying to communicate with one another and these work groups can communicate faster with high speed access within and outside of the businesses.

5.2 Organizational Information Systems

Organizational information systems are used throughout a company and can be accessed by a number of associates.They may also be called enterprise information system.These systems are controlled by several computers which are separated by long distances.Examples of these systems would be payroll,time and attendance,guest history,or reservations systems.Many companies today do not use the traditional time cards;instead they use an electronic system that scans time cards.A system such as this supplies hourly data to the payroll branch,which could be located across the country.This facilitates the timely distribution of employee paychecks each pay period.
An enterprise system is a customized service module that is used by,for instance a hotel chains multiple outlets in various locations.The Fairmont hotel chain uses peoplesoft,a program that allows Fairmont Hotel associates to access the same information regardless of which hotel they are located at.

5.3 Global/International Information Systems

Companies that do business outside their own country are called international businesses.These worldwide businesses have information systems that allow them to stay linked these systems are called global or international information systems.If international companies are to communicate and make transactions effectively,they must use international information technologies and systems.
High-speed internet service is one form of information technology that these businesses can utilize.with the help of the internet and computer based software,companies can speed transactions between one country and another.An example of a company that provides such services is Wayport High-speed internet

solutions.Wayport High speed internet solutions for hotels is a provider of high speed wireless and wired internet service for hotels and their guests.

The wayport service allows hotel guests to connect to the web,email and the guests corporate networks at speeds up to fifty times faster than traditional modern connections.This results in a competitive edge when targeting business guests,because it enables reduced PBX/voice trunk saturation and cost,property differentiation,and brand enhancement.Typically these are the benefits businesses may receive by using high-speed internet access for transactions.

5.4 Hospitality Information Processing

Hospitality business process data into useful information .information can be used to enter guest reservations,collect guest information,bill guests and so forth.This information can be entered into a computer database in which the data are stored for future reference,and the front desk and accounting department can share it.

For instance,guest payments must be recorded and transmitted from the initial sale at the front desk,to accounting where they are documented for legal purposes.

The term information sharing refers to business processes that operate independently accessing each others data.

Hospitality businesses worldwide use electronic data interchange to transfer business data such as purchase orders and requests from a hotel to a supplier.

Hotels use EDI to execute orders for various departments within the business.

EDI eliminates delays and increase accuracy by providing electronic transmission of data between the guest computer and the suppliers computer.These highly advanced EDI systems enable hospitality businesses to reduce costs and work more efficiently.

Some hotel companies like choice international have tried to develop their own high speed internet provider but realized that such a project presents too many challenges so they have opted to go with a company specializing in providing high speed connections.

Considering that choice has more than 3300 hotels (Comfort Inn,Comfort Suites,Clarion,Quality,Econo Lodge,Sleep Inn,Mainstay Suites Franchises)

It is remarkable that they were able to find an application service provider called Viator who could provide access to all franchisees

Daniel Rothfield Choice senior VP of partner services,says that Viator provides hardware and software from leaders in the technology industry,customized,trunkey programs to fit each propertys specific needs. Viator has a proven track record of installations,plug and play usage,and purchase or leasing options including use of existing wiring and connectivity when possible

Systems can be financed at a minimal charge to guests or at no charge to guests for those franchisees that absorb the nominal costs.

5.5 Hotel Information Technology System

Information technology has helped hotels reach one of the main goals of a hotel to deliver exceptional guest satisfaction.some hotels have utilized technology for many years.The first hotel to use a computer was the New York Hilton in 1963.

This was the first computer automated guest room management system,but it was very inefficient because front desk clerks had to use key punch cards to record information and then process these cards in a batch at a later time.

Fortunately hospitality information technology has progressed and today several efficient systems are fast

becoming industry standards.

5.6 Property Management Systems

The property management system is the hub of information processing in a hotel.

A property management system is a computer-based lodging information system that relates to both the front office and back office activities.property management systems are used to help complete many tasks with in a short period of time.Hotels with a large number of guests and employees to serve and inform predominantly use these systems.A PMS will aid a property to become more efficient with time,which is an important factor for guests who demand personal attention and fast service.

The property management system can interface with many other modules or applications.one application of the PMS in the front office is the room management module.A room management module tracks the status of rooms,which can assist the housekeeping department with their duties.The hotel room master in the PMS contains data on each room such as room number,room type,room features,room rates,locations,and the status of each room.

Knowing the status of each room definitely helps the housekeeping department know what work has to be done,what work is in progress,and what work has been completed.

Another front office module is a guest accounting module.A guest accounting module increases the hotel control over guest accounts and significantly modifies the night audit routine.other functions of a PMS are electronic locking systems,energy management system,and call accounting systems.

There are many potential users of a PMS,Any manager making strategic decisions could utilize the information provided by a PMS.Some property management systems even after microcomputer interfaces so that the information from the PMS can be downloaded onto a personal computer to be utilized by a number of business applications.

Companies such as INNfinity Hospitality systems and Palm Hospitality Technologies Inc . have joined to create property management systems that help hotels to modernize with very little cost.The new PMS-WOM (Wireless operations management) system provides hotels with a Windows-based PMS from INNfinity,the JiHi (Just in-time Housekeeping Integrated) solution from palm Hospitality Technologies for wireless housekeeping,minibar and maintenance/guest requests,and high speed T 1 internet access for a complete in-hotel wireless network for all meeting/guest rooms and common areas.

An example of how technology is assisting hospitality operators is given by the Washington Duke Inn & Golf Club in Durham,North Carolina,which has revamped its audit process,eliminating the night audit and moving to an audit every five days.Using hospitality technology solution automated hotel audit,they have gone from two night auditors seven days a week plus an hour of day audit to one person who performs the entire process,including management reports,in approximately fifteen hours a week.

Another example is the four star Chateau Relais Resort,Ontario,Canada,which is a convention resort property that uses the Northwind Maestro PMS System.They found that it has helped streamline the sales and catering books,and they have used its yield management feature to better manage inventory and maximize revenue for year-round packages.The system also creates detailed guest history reports.The sales and catering staff have been able to increase the amount of bookings by 15 percent by switching to a single computerized system from a more paper-oriented system.The ADR is up 7 percent this year due to new yield management practices.

Some hotels use an express check-in process that allows guests to conveniently check in and check out via a touch screen that interfaces with the hotels property management system without associate assistance.A booth in the lobby allows guests to input their reservation details or provide data from an

inserted card or touch-screen solutions.Based on the information given,a series of task is then completed and after obtaining an electronic signature,an electronic room keys is then encoded and dispensed.A printout of guest stay information including room type,rate and departure date is printed.Guest may also use the booth to check out.

A kiosk utilizes a colorful graphical interface and intuitive touch-screen technology to guide the guest thorough the check in process.it is ideal for full service properties,where large groups may be checking in simultaneously,and for extended stay properties that have limited after-hours personnel.Not only does this kind of technology save time for guests,it can also save properties money.

Perhaps the ultimate in guest convenience is the wireless curbside guest check-in made possible by the ving card system.This recent technological advance allows guests to go right to their rooms from curbside.The system is capable of interfacing with existing PMS system to fully integrate property management,reservations,and guest service functions.With a portable keycard encoder and MICROSOPERA Palm,a wireless handheld device with real-time database access, the system works seamlessly to provide the ultimate guest convenience.

Some property management systems use Microsoft Windows to move data between applications and to share information – a process called information sharing.Information sharing permits menu-driven interface with other systems such as advanced reservations,room inventory,self check in /out,night audit,guest accounting,city ledger,group handling,travel agency accounting.All of these system are designed to improve guest service.But beware:Management needs to ensure that the front desk associate doesn't just look down while keying in the guest name and other details without ever really looking up at the customer.Yes,the hotels that will be successful in the next few years are the ones that go out of their way to make guests really feel welcome and give a high tech yet high-touch service.

5.7 Energy Management System

Technology is used to extend guest in-room comfort by means of an energy management system.Passive infrared motion sensors and door switches can reduce energy consumption by 30 percent or more by automatically switching off lights and air conditioning,thus saving energy when guest is out of the room.

Additional features include :

1. Room occupancy status reporting
2. Automatic lighting control
3. Minibar access reporting
4. Smoke detector alarm reporting
5. Central electronic lock control
6. Guest control amenities

Due to increasing energy costs,some operators are installing software programs that will turn off nonessential equipment during the peak billing times of day.

Hospitality operators can save money by utilizing this type of energy saving software to reduce their energy costs.

5.8 Call Accounting system

Call accounting system track guest room phone charges.software packages can be used to monitor where calls are being made and form what phones on the property.To track this information,the CAS must work in conjunction with the PBX and the PMS.Call accounting systems today can be used to offer different rates for local guest calls and long-distance guest calls.The CAS can even be used to offer discounted calling during off-peak hours at the hotel.

5.9 Guest Reservation Systems

Before hotels started using electronic means to book reservations,they used to receive reservations by letters,telegrams,faxes,and phone calls.Airlines were the first industry to start using global distribution systems for reservations.Global distributions systems are electronic markets for specific travel and tourism components.Initially hotels offered reservations through airline GDS,but the rigid structure of the older GDS data bases soon became obsolete for the hotel industry.

Hotels could only publish a few rates for each type of room they offered.when a travel agent would search for rooms,some hotels would automatically be eliminated from the search because they could not publish all of their rates.

Eventually,hotels and brand chain began receiving reservations in central offices called central reservation offices .These offices could handle several properties reservation.Later hotels developed central reservation system that could handle a lot more information than the older global distribution systems and they could be integrated with a property management system.Two types of central reservation systems are in use:affiliate and non affiliate systems.affiliate systems are central reservation systems in which all participating properties are contractually related.A nonaffiliate reservation system refers to a subscription system that links independent properties.

A hotel subscribes to the system services and takes responsibility for updating the system with accurate room availability data.Nonaffiliate systems generally provide the same services as affiliate systems,thus enabling independent hotel operators to gain benefits otherwise available only to chain operators.

A central reservation system houses the electronic database in the central reservation office.Hotels provide room rates and availability information to the CRO usually by data communication lines.This automatically updates the CRS so that guests get the most up-to-date information when they book through the central reservation office.Guests instantly receive confirmation of their reservation or cancellation.

The hotel benefits from using a central reservation system.with such a system,hotels can avoid overselling rooms by too large margin.The CRS data base can also be used as a chain or individual property-marketing tool because guest information can easily be stored.A CRS can also provide yield management information for a hotel.The more flexible a central reservation system is,the more it will help with yield management.For example,when demand is weak for a hotel rates will need to drop to increase reservations and profitability.When demand is higher,the hotel can sell room rates that are closer to the rack rate.

A CRS can be used in several areas of a hotel.If a hotel has a reservations department,the terminals or personal computers in that department can be connected to the central reservation system.it would also be important for front desk employees to have access to the CRS.The reason for this is because they will need to know what the hotel has available because they may need to book rooms for walk-ins who don’t have reservations.Constant communication back and forth is needed between the central reservation system and the front office and reservations department.Certain managers who are the decision makers in the hotel will also use the system to forecast and set pricing for rooms and different amenities.

When choosing a central reservation system,several factors need to be assessed.First,it would be essential to determine whether the property will be part of an affiliate system or nonaffiliate system.The size and design of the data base is a crucial decision.Hotels should choose a system that can handle the amount of data they want to keep track of,and it should have the capability to be modified in the future.

Hotels can use other forms of technology to facilitate reservation system.several companies offer an application service provider environment that can deliver a complete booking system tied to the hotels inventory in real time via the web.

One operator,paul wood of the EI Dorado Hotel in Santa Fe,New Mexico,says that he simply went to the ASP'S website and put in a promotional corporate rate for the summer,and the same day,he started seeing reservations coming in with that code.After a few months,booking were up 3 percent over the previous year.

Reservations are still being made over global distribution systems and through other channels via the internet.About 15 percent to 20 percent of all bookings are made via third-party internet channels,including GDS players and consumer e-commerce sites such as Travelocity and priceline.Another 5 percent come in over the hotels own web site .Reservation system that utilize the web are usually referred to as web reservation systems.

5.10 Sales and Marketing

One of the main ways to implement technology for sales and marketing is through databases. A database is a piece of software that instills a formal structure on data organized for users.using a database management system (DBMS),a database can be accessed and queried to search for records with certain qualities.In the case of sales and marketing,a database of customers could be gathered to determine which customers should be contacted for promotions or which customers have already been contacted.

One company that specializes in such products is Pegasus business intelligence.

Pegasus Business Intelligence provides answers to marketing questions through data warehousing,industry wide statistics and marketing consulting services.

Another popular topic in sales and marketing is customer relationship management.CRM Provides a way to keep track of guest preferences and to find new and repeat guests that are your target market.CRM can involve a stand-alone system or a system that is integrated with your PMS.

Email and voice mail can be an effective marketing tool.For example,frequent users may receive e-mails about upcoming events and special offers.

Once a company has guest e-mail addresses they can send information that may be helpful to the guests.

The internet is also used in the marketing of a property or restaurant by allowing prospective guests to go on a virtual tour of the property or check out the restaurant's menu.

5.11 Catering

Hospitality businesses provide various services for all types of guests,one being catering and event management,in which large groups of people arrive on a certain date and need catering services for their meetings and conventions.

Information system and technology have advanced this ability to large hotels seeking to enhance their catering management as a way to increase revenue.

Catering has become much easier and efficient with the aid of computer systems and internet based software.

Software companies have realized the importance of the market for catering and event management to both small and large businesses.caterease catering and event management software has created a program that allows hotel managers to reserve meeting space and rooms for their future guests.Caterease is one of the largest software providers to the leading hotel brands worldwide.The guest room manager module helps hotels,motels,and inns keep track of all of their sleeping accommodations,block guest space,links reservation to event contracts,and runs detailed reports.

Delphi is another leading hospitality industry software provider for automating the sales,marketing,and catering processes of large properties.The delphi program has long been popular with industry professionals who use it for a variety of applications,from scheduling and priority setting to function diary

and banquet event orders.Computer information system allow software companies,such as caterease and Delphi,to create highly advanced systems to make hospitality businesses more efficient.

5.12 Restaurant and Food Service Information Technology System

The Food service industry has benefited from the use of information technology.

Proper implementation of information systems aids large and small restaurants and food service businesses in providing more efficient services to their guests and more control to prevent losses.

As a listing of the Top 100 independent restaurant illustrates,technology does make a difference.It lets operators drive down costs,helps them serve guests with more panache,and gives them additional time to put toward the care and feeding of the customers.Guest satisfaction is a high priority,if not the highest,in the food service world.Guest with all sorts of demands can be satisfied by a restaurant that provides efficient and effective service.Businesses in order to achieve higher revenues and therefore a successful future,must constantly seek out new ideas to increase the efficiency of their systems and achieve guest satisfaction.

In the restaurant and food service industry IT is divided into front and back of the house operations.The front of the house system includes the point of sale system,Kitchen display system,and guest services solutions.

The back of the house systems are also called product management and include inventory,food costing,labor management and financial reporting.

5.13 Point of Sale System

Point of Sale systems are very common in restaurants and other food service settings such as a stadium,theme park,airport,or cruise shop.These systems are also used by hotel properties that have food and beverage and retail outlets.They are used to track food and beverage charges and other retail charges that may occur at a hotel or restaurant.A point of sale system is made up of a number of POS terminals that interface with a remote central processing unit.These terminals may also have their own microprocessors so that processing can be done at the terminal,and all the terminals are networked.This enables a property to operate without a central processing unit.POS systems built in this fashion are called microbased POS systems.A POS terminal may be used as an electronic cash register too.The POS system is usually interfaced with a property management system at a hotel to record guest transactions during their stay at the hotel.Terminals can be placed anywhere in the hotel or restaurant where transactions are taking place.For example,a hotel may have pos terminals at the front desk,at food and beverage outlets,and at any retail outlet in the hotel.A restaurant may have terminals at server stations or at the host station.Many POS system in use today have graphical user interfaces and touch screen terminals and run off of a variety of operating systems.

POS systems have many uses and users.In the hotel,front desk managers and employees are some of the most frequent users of a POS system because they have the most contact with guests and guest transactions.They are very often have the authority to remove additional room charges or charge the guest for additional services as appropriate.other users of this system could be room service managers and employees.In a restaurant,both the managers and the wait staff could use the POS to keep track of sales and guest checks.

MICROS,a leading software,hardware,and enterprise systems provider,offers Restaurant 3000,a modular suite of applications that encompases front of the house,back of the house,and the enterprise systems.The popular 3700 POS is a window based touch screen system where client terminals are networked to a central POS server.Transactions are rung at the terminal and posted into the database for later analysis and

reporting.The 3700 POS will support a network of kitchen printers so that orders can be presented to line cooks and chefs for food preparation.

This POS system also supports use of a wireless personal digital assistant as an order-taking device so that servers can take orders directly from the guest tableside.Mobile handled devices can greatly speed the processing of orders to the kitchen and ultimately increase revenues due to faster table turns.

Various hardware and software POS solutions are available.Among the computer based programs used is e-Revaluation from InfoGenesis.It is a computer based programs used is e-Revelation from InfoGenesis.it is a computer based POS system that claims to reduce costs and increase efficiency for the hospitality world.Whether you manage a single restaurant,a chain of restaurants or a combination of fine dining,hotel room service,lounge and gift shop operations,e-Revelation is based on the point of sale solution used by the hospitality industry throughout the world.

When buying a POS system,several factors need to be considered to ensure you choose and implement the best system.According to Kasavana and Cahill,the size and type of operation play an important role in choosing a proper system.Fewer terminals are needed in a limited service property than in a large hotel or resort,where terminals may be needed in many different locations.Security of the POS is another concern.If guests are able to charge many services and items to their rooms,it is necessary to ensure the guests identity is valid and authorizes them to bill to their room.sometimes systems will require a user to enter a reference code or a guest last name to make sure that the room and name match.There could be two accounts under one room number.

In Addition,some systems require guests to provide a room key card on which is encoded material about the guests portfolio.The guest may still have to provide a room number and name along with the card.The card can then be swiped to complete the transaction.

5.14 Choosing a POS

One of the most crucial IT decisions is choosing the right POS system.Each hardware/software package has its own unique characteristics and,despite claims to the contrary,there is no such thing as one size fits all,nor,unfortunately,is there a single template or criteria list to persue when selecting a POS system.some universal criteria do,however,apply to POS system selection.This decision should not be rushed.

Start by identifying your unique needs so that you can determine which available systems can accommodate them.Mike Gaston,MIS Director for the copper cellar corporation,which operates twelve restaurants based in Knoxville,Tennessee

Came up with this list of requirements for his company's new squirrel for windows NT POS system.

- Easy for wait staff to learn
- Easy for managers to learn and use so data can be collected smoothly,distributed properly,and applied chain wide even by wait staff without computer literacy
- Compatible with custom-developed financial application in the main office.
- Uses Microsoft windows NT operating system and SQL server database architecture.
- Scalable over time as copper cellar company and its units grow.

Other considerations include system performance and speed.For example can the system provide real-time data to the home office of a large chain restaurant operation?chevys Fresh Mex a 166 unit chain,selected its POS system largely because of its enterprise capabilities.The system allows the director of restaurant support to analyze remotely the entire chain in real time – something very useful when restaurants are in different time zones

5.15 Kitchen Display System

Kitchen display systems further enhance the processing of orders to and in the kitchen.Printers in the kitchen are replaced with video monitors and present orders to kitchen associates along with the information on how long orders are taking to be prepared.Orders change color or flash on the monitor,which alerts kitchen associates to orders that are taking too long.kitchen monitors are widely used in quick service restaurants,but are also gaining momentum in table service restaurants.Kitchen video systems also post order preparation times to a central data base for later reporting and analysis by management to determine how the kitchen is performing.

5.16 Guest Service Solutions

Guest service solutions are applications that are designed to help a restaurateur develop a dining relationship with guests.Applications include a frequent diner management program,delivery management with caller ID interface,and guest accounts receivable to manage home accounts and gift certificate management.

All of these applications are accessed through the POS system and give restaurateurs the opportunity to offer their guests convenience,while allowing the restaurateurs to track who their best customers are.Guest activity is posted into the central database and management can develop targeted marketing programs based on this information.

5.17 Back of the House Restaurant Systems

For restaurant operators,selecting a back-of- the house application is a complex decision.Back office applications that control costs,manage inventories,and optimize labor are instrumental tools that allow operators to pull data from the POS application to generate reports for analysis.Back of the house system are also known as product management systems and include inventory control and food costing,labor management,and financial reporting features.

5.18 Inventory Control and Food Costing

Product management applications provide restaurateurs with the ability to track all aspects of their inventory.Food cost menu items sold through the POS system are linked to recipes,which are made up of inventory items.Each time an item is sold,the appropriate inventory items are automatically depleted through the software application.For example when a hamburger is sold the inventory is depleted by one hamburger patty,one bun,one slice of tomato,one ounce of lettuce and one ounce of onion.The system can automatically determine when inventory levels are low and it is time to place an order.Restaurateurs can set par levels for stock based on forecasted business to allow the system to generate the proper recorder quantities.

Restaurant managers periodically take a physical inventory count and enter that into the system to determine if there are any variances.Variances occur due to spoilage,waste,improper recipes or theft.Inventory variance reports are critical to analyzing the profitability of a restaurant.When new items are received into inventory,they are entered into the system and,along with information about the cost of those items,the system allow restaurants to then determine the food cost of their menu items.

5.19 Labor Management

Most front-of-the-house systems have the ability to track employee working time.A back of the house labor management package adds the ability to manage all of a restaurants payroll and human resource information.A labor management system includes a human resources module to track hiring,employee personal information,vacation,security privileges,tax status,availability,and any other information pertinent to employees working at the restaurant.A labor management system would also include

scheduling capability so that managers can create weekly schedules based on forecasted business.Schedules would then be enforced when employees check in and out so that labor costs can be managed.

5.20 Financial Reporting

Back of the house and front of the house systems post data into a relational database located on the central server.The restaurant manager uses these data for reporting and decision making.profit and loss reports,budget variances,end of day reports,and other financial reports are generated from the central database.

Financial management reporting needs to be flexible so that restaurant operators can manipulate it in ways that are useful to them.

5.21 Personal Digital Assistants

Personal Digital Assistants help hospitality businesses stay effective and efficient by improving time management and helping with faster service.

For example,computer systems are used today in restaurants to transmit orders to the kitchen and to retrieve and post guest payments.These actions took extra time in the past,when the computer systems were placed at a distance from the server.

PDAs have been created to allow servers to control their business with their fingertrips.

PDAs can also be used in the hotel setting.oftentimes,PDAs can be integrated with a PMS to give housekeepers real-time information about which rooms need to be cleaned and which rooms are not occupied.in the same way,as housekeepers complete the cleaning of a room,they can send wireless to the front desk to affirm that the room is ready to be occupied.

6. Result

The study found the following findings based on the information related to industry technology system.

1. Information technology systems providing more efficient services to their guest and more control to prevent losses.
2. It helps to achieve higher revenues and a successful future in the business
3. It is easy for staff to learn about the technology system
4. Easy for managers to learn and use so data can be collected smoothly and distributed properly
5. Computers provide greater accountability,efficiency,and economy to hospitality operations worldwide.
6. Loss of computer access or control can result in significant financial losses and damage to assets.
7. Use of PDAs in the hospitality industry is likely to increase
8. Online travel purchasing is rising dramatically
9. Online reservation sites provide a place for independent restaurants to advertise and book reservations
10. It enhances the Guest satisfaction and value for money for any kind of Guest experiances

7. Conclusion and Implications

Hospitality industry technology is characterized by making operations quicker and more efficient.The use of information systems allows many operations to be completed quickly with little chance for error.

Information systems are a collection of components that work together to provide information help in the operations and management of an organization.

Information technology in hotels and in restaurants differ primarily in the use and purpose of the software systems.Hotels largely utilize technology for accurate guest reservations,billing,and guest comfort and

convenience,because the lodging section of the industry many guest today demand the high speed connections in their rooms and faster check in & check out services.in the restaurant business however,technology is used primarily to provide more efficient ways to process food orders and service,using different POS systems.Technology is used for more accurate inventory control measures as well.

The importance of information systems is to provide a variety of services to guest that make the customer experience more enjoyable by making it quicker and more efficient with fewer errors.In hospitality this is particularly important,due to the size of most hotels.systems such as PMS are designed to aid large properties to become more efficient with time,which is an important factor for guests who demand faster service.

Hospitality industry technology involves management systems,such as the PMS.This system is used to help employees complete many tasks within a short period of time.Another example is organizational information systems,which take care of the payroll and other internal functions that belong to management.

8.Limitations and Future research

The study indicates the scope of industry technology in the hospitality industry and the detailed studies can conduct related with the recent trends for the industry technology applications in Hotel Guest operations.

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