TRT3701
Hospitality Management
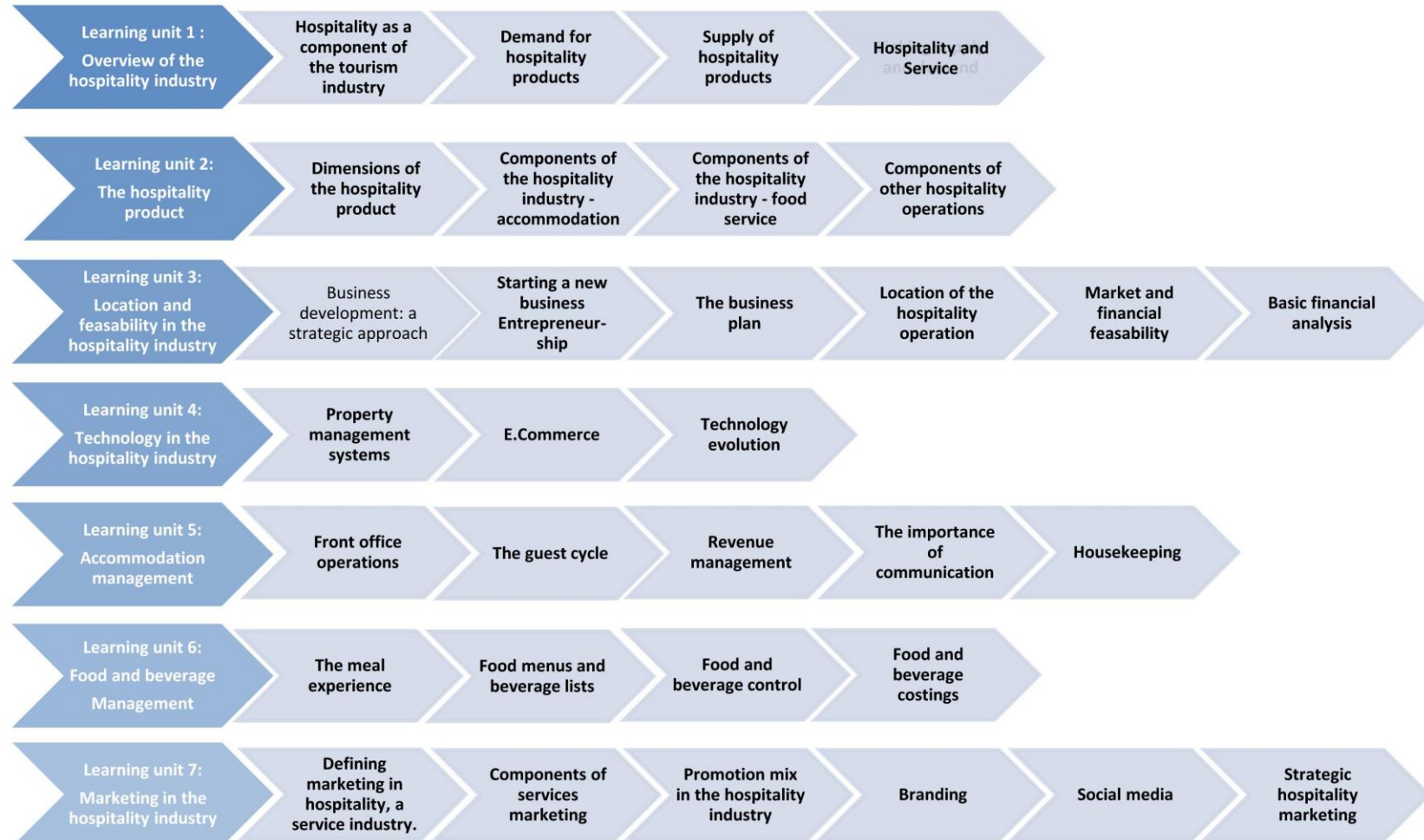
Learning unit 4: Technology in the Hospitality Industry

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(Learning unit 3 also includes: Basic financial analysis)

(Learning unit 7 also includes: Strategic hospitality marketing)

LEARNING OUTCOMES

Once you have completed this learning unit, you should be able to

- review the main components of a hospitality technology infrastructure

- analyse the functionalities of a hospitality property management system and a telephone management system

- appraise the use of point-of-sale systems in hospitality operations

- discuss marketing in an e-commerce environment in hospitality operations

4.1 INTRODUCTION

Modern accommodation and hospitality operators have adopted computer technology and customised software applications for the purpose of efficiency and control (Bardi 2011).

This learning unit will provide an overview of the various components to consider when a business sets up a **hospitality technology infrastructure**. The basic functionalities of the system need to be considered before making a decision on which system or applications to purchase.

Property management systems generally require a large financial outlay and a review of the various functionalities is therefore vital. Software applications for purposes of efficient guest service, communications, record keeping, financial controls and revenue management are all included. Evolutions in **e-commerce** have also made it necessary for hospitality operations to reach further than the physical property structures in order to market their product to prospective guests.

Some of the more prominent industry leaders in the latest hotel **software** development are Ankerdata (Protel Software), Micros Fidelio and Sabre Hospitality Solutions.

Hardware requirements will be based on the specifications of the software application installed in the operation. It is advisable to gain the necessary information from an information technology (IT) specialist to ensure that the hardware infrastructure is suitable for the accommodation establishment's requirements.

This Learning unit will focus on the software applications available to hospitality operators.

4.2 SETTING UP A HOSPITALITY TECHNOLOGY INFRASTRUCTURE

When setting up the technology infrastructure for a hospitality operation, a basic needs analysis should be done for the hospitality business (Bardi 2011). It is necessary to determine what software is required by the operation.

Let's look at the various software components that could be used by a 100-bedroom city hotel as an example.

As manager/owner of the hotel, you are required to review which of the daily functions of the hotel need to be performed using relevant technologies. Software applications could include the use of a **property management system (PMS)** to process the various stages of the guest cycle: reservations (PRE-ARRIVAL), arrival, occupancy (STAY IN HOUSE) and departure. A PMS will also include the night audit process, where a number of financial controls can be exercised.

Point-of-sale (POS) systems may be installed in the various revenue centres, such as a restaurant, bar and gift shop, to record daily revenue from these departments.

The sharing of data across various departments or divisions would also require the use of an **interface** – software developed to allow the various individual components of the hospitality technology infrastructure to communicate with each other.

Guestroom security systems (GSS) and **telephone management systems (TMS)** may also be integrated as part of the overall infrastructure.

These are explained in figure 4.1, which simplifies the relationship between various components of a hospitality technology infrastructure.
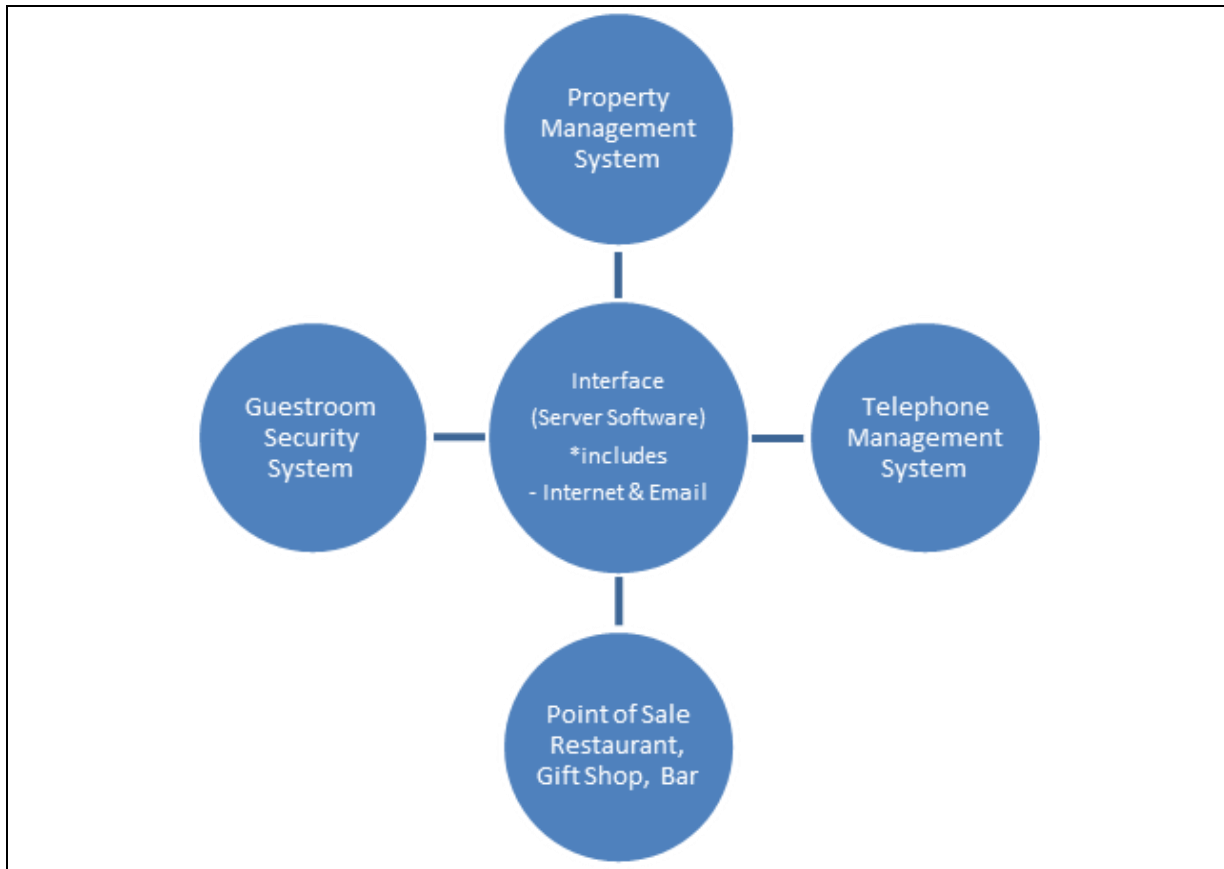
Figure 4.1: The relationship between various software components of a hospitality technology infrastructure

Source: Raubenheimer (2013)

Let's now take a more in-depth look at the basic functionalities of each of these software applications.

4.2.1 Basic functionalities of a property management system

The type of hospitality operation will dictate the functionality requirements of the **property management system**. This simply means that different functions can be performed by a property management system and, based on the complexity of the hospitality operation, additional functions may be added to ensure an efficient system. Bardi (2011:109) best summarises the common software options available in a PMS by means of figure 4.2.

Marketing and sales

- Guest/customer file
- Direct mail
- Guest history
- Meeting room information

- Travel agent
- Facebook
- Twitter
- LinkedIn

Night audit

- Room and tax posting

- Operational reports

Accounting

- Accounts payable
- Accounts receivable
- General ledger

- Payroll
- Profit-and-loss statement
- Balance sheet

Human resources management

- Personnel files
- Time and attendance

Security

Electronic mail

Reservations

- Room availability

- Yield management

Front desk

- Check-in
- Room status
- Postings to guest accounts

- Guest credit audit
- Advance deposits
- Cashier
- Check out

Call accounting (TMS)

- Guest information

- Phone call posting

Housekeeping

- Room status

- Environmental issues

Maintenance

- Work orders

Food and beverage

- Point-of-sale
- Menu profitability

- Inventory
- Recipes

Figure 4.2: Common software options in a PMS

Source: Adapted from Bardi (2011)

Property management vendors generally provide a basic number of functions (applications) within the software package and interfaces with additional features or systems are provided as an optional extra. The installation of such applications is normally done at an additional cost and requires annual software licensing to ensure continued functionality.

PMS applications (also referred to as **modules**) are grouped according to specific functions or departmental requirements. Each of the main functions can be summarised in the tables provided below.

Table 4.1: Property management systems applications/modules

PMS modules/applications	Functionalities included in each module	
Reservations	Guest data	VIP
	Room inventory	Projected occupancy
	Deposits/guarantees	Travel agents
	Special requests	Guest messages
	Blocking	Social networking
	Arrivals	Reports
	Departures	
Revenue management	Master rate table	Guest type increments
	Per-person increments	Revenue management
Registration	Reservations	Security
	Guest data/registration	Reports
	Room inventory	Self check-in
	Room status	Intranet
Room status	Room inventory	Room reports
	Availability	Intranet
Posting / recording	Point-of-sale	Visitor-Paid-Outs (VPOs)
Guest accounting	Room	Miscellaneous charges
	Tax	Phone
	Transfer	Display folio
	Adjustment	Reports

PMS modules/applications	Functionalities included in each module	
Call accounting (TMS)	Guest information (guest rooms) Employee information (administrative extensions) Post charges	Messages Wake-up calls Reports
Checkout	Folio Adjustments Cashier	Back office transfer (city ledger) Reports Guest history
Night audit	Guest charges Department totals City ledger Cashier	Financial reports Housekeeping Intranet
Reporting	Reservations Registrations Checkouts	Housekeeping Credit balances
Back office	Accounts payable Accounts receivable Payroll Budgets	General ledger Reports Intranet ** systems may be linked to stand alone accounting software, e.g. Pastell, SAP, Oracle
Housekeeping	Room availability Personnel assignment Analysis Housekeeper's report	Equipment/Supplies inventory Maintenance requests Intranet
Maintenance	Review work order Room status Cost/Labour analysis	Repair cost analysis Energy usage analysis Guest room power start

PMS modules/applications	Functionalities included in each module	
Food and beverage	Point-of-sale	Recipes
	Posting	Sales control (sales mix)
	Cashier reports	Sales production analysis
	Food/Beverage inventory	Labour analysis
Security	Electronic keys	** systems may be linked to stand-alone guest room security software, e.g. Saflok, Vincard, Nexus, Elsafe
	Fire alarm	
	Burglar alarm	
	Security code transactions	
	Surveillance cameras	

Source: Adapted from Bardi (2011) and Kasavana and Brooks (2005)

However other modules could also be provided in addition to the modules discussed above, which are the modules most commonly used by accommodation establishments.

Hotel operations may include an extended module in **revenue management software** to assist in maximising room revenue over particular dates. While this module is generally included in the PMS packages provided by most suppliers/vendors, additional software may prove useful should the operation want to increase revenues even further.

Watch this! Property Management System (PMS)

The following YouTube video clip will provide you with an overview of the functionalities included in a PMS.

http://www.youtube.com/watch?v=f-1DNK__25o

While the principles of the functionality of a PMS remain the same, vendors distinguish their product by providing more user-friendly functionality features which enhance the efficiency of the hotel staff, such as guest messaging service, and even marketing and communications applications, where promotional materials are automatically e-mailed to all guests on the guest history of the system. Specific establishment requirements can also be met by customising reporting outputs and data requirements according to the customer's specifications.

ACTIVITY

Search the internet for different types of "hospitality property management systems" on the internet.

Some examples may include

www.semper.co.za

www.micros.com

www.sabrehospitality.com

www.ankerdata.co.za

www.hti-systems.co.za

www.hoteliersoftware.com

Choose three different systems and compare the main features offered by each system.

ACTIVITY FEEDBACK

Did you notice that each of the systems provide for the basic functions of different departments throughout the hotel? You may also have seen that the systems have specific applications which can be added to the basic software packages to enhance the efficiencies of the hospitality operation.

You should now be able to identify the key functions of each system and provide a basic overview of the areas covered by each.

Activity

Protel is the PMS of Ankerdata.

Visit their website: http://www.ankerdata.com/

The website offers tutorials on specific functionalities, as well as introductory clips on the system.

Also visit www.youtube.com and search for the keywords "hospitality property management systems" – tutorials and information clips on a number of systems will be available to give you a better overview of the functions of PMSs.

4.2.2 Basic functionalities of a point-of-sale system

Additional to the PMS, a **point-of-sale (POS)** system can be used to assist with recording sales in different revenue centres, including a restaurant, bar, hair salons, spas or gift shop in an accommodation operation. A POS system in very basic terms is a "cash register" for that outlet, where all sales transactions for the shift or day are recorded. In a hotel operation, this POS is normally interfaced (linked through a network) to the PMS so that charges are automatically posted onto the guest account. Let's illustrate this with a practical application.

Example

John is the bartender at the Silver Birch Hotel. A guest, Mr Brown, orders a beer and asks John to charge this to his room. John will ring up the beer on the POS system, producing a docket for Mr Brown to sign. The docket/invoice is then posted to Mr Brown's room account. At the end of the shift, John will cash up the bar and record the total sales made for the day. The total summary will consist of cash and guest dockets. The cash up with all the cash and dockets is taken to the front office, to check that the sales for the day balance to the revenue recorded through the interface and onto the PMS system. The total of the docket for Mr Brown will automatically appear on his account in the front office. Reception will then file the docket with all Mr Brown's correspondence.

POS systems can also be used as a stand-alone application in food and beverage outlets such as restaurants, coffee shops or fast food vendors (Bardi 2011).

ACTIVITY

Search the internet for "hospitality point-of-sale systems".

Choose three different systems and compare the main features offered by each system. Some examples may include

www.c-pos.co.za

www.micros.co.za

www.easipos.co.za

www.pilot.co.za

ACTIVITY FEEDBACK

Did you notice that each system provides for the basic functions of recording sales in a particular outlet in the hotel? You may also have seen that the systems have specific applications which can be added to the basic software packages to enhance the efficiencies of the hospitality operation.

You should now be able to identify the key functions of each system and provide a basic overview of the areas covered by each.

One of the software applications which has proved most helpful to hospitality operators is the stock control application. With every sale that is recorded through the system, inventory levels are automatically updated to new stock balances. Management can therefore check stock sold on the system versus stock available.

It may be useful to research "hospitality stock control applications" as part of POS applications. Search the internet for this type of application and see what you can learn about it.

4.2.3 Basic functionalities of a telephone management system

Telephone management systems (TMS) software can be sold as a separate system or can be integrated into the PMS as an additional application. The main function of the system is to record the duration and costs of telephone calls and automatically post telephone charges to guest accounts. A specific markup is added based on hotel costing structures, which provides an additional source of revenue for the hotel operation (Bardi 2011; Kasavana & Brooks 2005).

Note however that with the increased use of cellular phones and other communication devices, revenue from guest telephone calls has declined in modern hospitality operations (Bardi 2011). The functionalities of the system can assist management to record and monitor staff usage of telephone facilities. Should staff abuse telephone facilities, management can make staff members pay for personal calls. The TMS contributes to financial controls and in turn profitability of the hospitality operation as call costs are monitored and controlled within operational spending. This is a further example of an efficient system in place to monitor expenditure.

ACTIVITY

Search the internet for "telephone management systems".

Choose two different systems and compare the main features offered by each system.

Some examples may include

www.mia.co.za

www.midasmanagementsystems.com

www.man3000.co.za

ACTIVITY FEEDBACK

You should now be able to identify the key functions of each system and provide a basic overview of how the telephone management system can contribute to the efficiency of the hospitality operation.

4.2.4 Basic functionalities of a guest room security system

Hospitality operators may choose to replace normal mortice lock (key and barrel) locking systems with electronic locking systems. While this is a very costly exercise, the security benefits offered by such electronic **guest room security systems**, and the convenience offered to the guests, often ensure a quick return on investment. In the long run it is a very valuable investment for the hotel property.

Electronic door locks are fitted to individual guestroom doors and can also be used in specific administrative areas such as offices, storerooms or access-controlled public areas. The lock retains a memory of activity: who accessed the door, based on the user who encoded/programmed the key. Different levels of key security can also be implemented, with a **grand master key** allowing all access, a **floor/section master key** only allowing access to certain areas, and **guest room keys** only allowing access to the particular guest room. An **emergency master key** can also be made, which will override all door locks, even if double locked. These keys should be placed under strict control (Kasavana & Brooks 2005:261).

Examples of more prominent industry leaders in guest room security include Saflok, Vingcard and Nexus. Add-on technology such as digital safes for individual guestrooms as well as energy-saving technology are also offered by these suppliers.

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Activity

Visit the following websites to learn more about guest room security and electronic locking systems:

www.vingcardelsafe.com

www.saflok.com

www.miwasa.co.za

Note that the software used for electronic locking systems can be interfaced with the hotel's PMS, allowing for greater control through seamless integration.

Activity

Draw up a table to indicate the different components of a hospitality technology infrastructure. Indicate the purpose of each component as well as the functions of each. Provide practical examples to illustrate each more clearly.

Refer to figure 4.1 above to view the relationship between the various components of a hospitality technology infrastructure again. This diagram provides a good summary of the content in this learning unit. For revision purposes, take a moment to revise each of these components. Write down the functions of each technology infrastructure. Support your answer with practical examples.

4.3   E-COMMERCE ENVIRONMENT

The use of the internet has become inevitable in a commercial environment. With **e-commerce** (i.e. the sale and purchase of products and services via the internet), the hotel is able to reach far beyond the traditional marketing and distribution methods and can sell its products and services to a much bigger market via the various distribution channels on the internet (Kasavana & Brooks 2005).

Example:

Click on the following link and read the interesting article "Imminent growth of South Africa's e-commerce industry":

http://www.step.co.za/news/current-news/imminent-growth-of-south-africas-e-commerce-industry.html

Source: Step (2012)

Activity

Since technology is developing and changing so fast, the information in the above article may become outdated quickly. Think about telephone technology today and ask yourself a couple of key questions to be sure you always keep abreast of current developments. What is happening in the marketplace at the moment? Do more people have access to the internet? What are accommodation establishments offering their guests at the moment? Do hospitality operations provide their guests/customers with internet access? Is internet access in hospitality operations always free? Compare your answers to a couple of years back. What would your answers have been then?

Most accommodation establishments are listed on the internet, under either their group or company website (e.g. www.tsogosun.co.za; www.citylodge.co.za; www.proteahotels.co.za) or through a form of association or on-line booking engine which promotes their product to prospective users (e.g. www.aaaccommodation.co.za; www.bookings.com; www.expedia.com; www.wheretostay.co.za).

The use of **online booking systems**, social media and online travel forums allows hospitality providers to reach a much wider market of potential consumers. In 2012, online travel sales amounted to $162.4 billion, with hotel reservations taking up the majority of this revenue at 39% (Statisticbrain 2012).

By utilising **global distribution systems (GDS)** a particular hotel can increase the revenues received via online bookings. Bardi (2011:139) defines GDS as "a distributor of hotel rooms to corporations such as travel agents that buy rooms in large volumes". GDS such as Galileo, Amadeus, SABRE and Worldspan allow the hotel to provide their product to a wider market at more competitive pricing. Sabre Hospitality is deemed the market leader in online travel distribution, serving the majority of reputable hospitality providers.

Example:

Click on the following link to learn more about Sabre Hospitality systems:

http://www.sabrehospitality.com

Explore the website to learn more about this state-of-the art hospitality distribution system.

Hospitality marketers have also realised that online reputation management is vital because of the greater influence of **social media** such as Twitter, Facebook, LinkedIn, MySpace and YouTube on the purchasing decisions of potential hotel consumers Bardi (2011:137).

Watch this! Role of social media in the hospitality sector

Click on the link to gain more insight into the role of social media in the hospitality sector:

http://www.youtube.com/watch?v=8OCVKeINyp0

Not only do **social media provide** a platform to market the hotel product to potential guests, but guest feedback is also encouraged in this way, which gives the hotel the opportunity to be more responsive to their client needs. Note that **social media** platforms should be closely monitored and that the hotelier would need to be very interactive and responsive to client feedback, especially in the instance of negative feedback. Disgruntled consumers may even go so far as posting negative feedback on consumer sites. Specific websites have been designed with the purpose of finding and posting **reviews** on travel and hospitality services. The most prominent and credible website at this point would be TripAdvisor. In a South African context, HelloPeter.COM has become a popular site for consumers to rate their service experiences.

Activity

Access the TripAdvisor website on www.Tripadvisor.com. Search for a hotel in an area where you would like to plan your next holiday. Look at the different kinds of information you can enter to select a hotel according to your preference. Do you see that each hotel is ranked? Can you see where previous guests have left their comments and where the hotel management or owner has responded? Are there any photos of the hotel you would like to stay at? How would you make a choice between the different hotels which match your search criteria? Did you find the site helpful in making your choice?

ACTIVITY FEEDBACK

Each hotel provides an overview of its unique features and services. The feedback provided by different guests gives potential guests some insight into the experience they may have at the hotel. The ranking is generally a good indication of guest satisfaction. Hotels with photos attached are generally more popular as guests are able to see what they will be getting for their money.

Once the traveller has chosen a hotel, it is extremely important to have a **secure payment gateway** through which the booking can be made. With the increase in e-commerce and more and more purchasing and business being done via the internet and social media, hospitality operators, as well as any other business, need to assess the risk associated with online trading. Consumers will shy away from booking online services if they are not assured that their personal and credit card information is secure.

Example:

Click on the following link to learn more about PayPal, a secure online payment option which can be used by businesses in an e-commerce environment: https://www.paypal.com

Hospitality organisations may use different payment gateways depending on which online booking system they use. Regardless of which system they use, the safety of their consumer transactions is vital to the continued success of the business.

StaySafeOnline (www.staysafeonline.org) provides some useful information on securing the business's online environment as well as securing payment transactions, data and user information.

We have discussed only some of the more recent developments in hotel technology and the marketing of hotel facilities and services. However technology is evolving so rapidly that modern hoteliers must always make sure they stay at the forefront of this evolution, so as to maintain marketability and appeal to tech-savvy consumers.

4.3.1 Technology evolution

The future of hospitality technology requirements cannot be certain. However, developments in technology have sparked an interest in hoteliers who want to include evolving technology in the guest experience.

Guests expect basic technology infrastructure such as **Wi-Fi** and are becoming more aware of the mobility of the guest experience (i.e. bookings via smart phones). It is therefore essential for hoteliers to review and prioritise capital investment into this important feature, for the guest experience as well as operational efficiency.

Consider the following example:

Hotel mobile marketing – a hotel guest story from the near future

Here's a peek at the hotel guest experience in the near future. With mobile phones becoming an increasingly important marketing and CRM channel, improving technology and awareness will soon allow hotel marketers to enhance the hotel guest interaction, in a very similar way to what's described below…

Hotel booking and research

Sam wants to book a hotel for an overnight stay in a nearby city in a week's time.

He visits a website to look for hotels to see what's available.

He sees a hotel he likes and books a room online.

As part of the booking procedure Sam is asked to enter his e-mail address and his mobile phone number.

He's instantly sent both an e-mail and an SMS message confirming his booking.

The SMS message is addressed to Sam personally and contains his booking reference and the dates of his stay.

Both the e-mail and SMS message contain a link to a specially built hotel website that can be browsed and navigated using any mobile phone.

This mobile website can detect what type of mobile phone is accessing it and can display the relevant content in the right screen size, so that it's easily navigated regardless of whether Sam has a Blackberry, Nokia, iPhone, Sony Erickson, Motorola, Samsung or any other type of mobile phone.

The mobile site contains the same type of content contained on the hotel's traditional website, but the content has been optimised to be viewed and displayed on a mobile phone.

The information on the site is displayed in small packets. Sam doesn't spend hours browsing the internet on his phone, as he prefers to do that on the bigger screen size on his laptop, so instead wants his information presented to him in a straightforward format that's easy to find and easy to read.

On his mobile phone, Sam has a range of options that he can choose to use. He can look at a range of 30-second videos highlighting the different facilities of the hotel, he can look at the various food and beverage venues, and at what he's particularly interested in --- he can download mobile vouchers that will give him 20% off of a bill of any F&B location that he likes the look of.

Sam is interested in a particular F&B location and he can choose from a couple of options:

- He can check out the menu.
- He's a sports fan so he can see what games they're showing during the dates of his stay.
- He can book a table (including one next to the TV so he gets a good view of the game).
- He can even leave a message on the site, letting other people know that he's going to be there and what team he supports, if other fans are showing up too.
- If he wants to eat, he can even pre-order his preferences on the menu.
- He can also recommend this location to some friends to see what they think of the place.

He decides to recommend the bar to a friend to see what he thinks of it and he's instantly taken to his list of contacts on his cellphone. He selects the friend he wants to send the details to and seconds later Sam's friend receives this invite in his inbox, and he gives Sam the thumbs up.

After Sam's friend says he thinks that the bar looks good, Sam clicks a link to request a confirmation of his table booking to be sent to his phone via either SMS, e-mail or picture message. Now he's got the confirmation and contact details stored on his phone.

He's also invited to download the mobile voucher to his phone that gives him 20% off. All he has to do is show the voucher on his phone when he's presented with his bill and he automatically receives the 20% off.

He's also asked if he'd like to receive a reminder SMS message of these offers during his stay, but he's not that keen, so ticks the "No thanks" box.

Pre-Stay

The day before Sam is due to arrive, he receives a follow-up video message from the hotel.

"Hi Sam, we hope you're excited about your stay with us. Please click the link shown at the end of this clip to view a list of places to visit that we think will help you to enjoy your stay."

Sam clicks the link and is taken to another mobile website that is fully branded by the hotel.

This mobile website contains details on places that could be of interest to him during his stay and information that he could find important, like recommended shopping malls, local beauty spots, "handy hints" (e.g. the average prices for taxi rides and meals, places to take children, local music events).

Arrival and stay

A few days later, Sam lands at the airport; he shows his taxi driver the location and map of the hotel that he'd previously requested to be sent to his phone. He also checks the rate for his cab ride against the recommended price he should be paying in his handy hints section on the hotel mobile website, to make sure he's not being taken advantage of.

Upon check-in at the hotel, Sam's asked to swipe his phone over a reader at the front desk; the receptionist smiles and informs Sam that during his stay he won't be issued a key card; instead, to get into his room, all he needs to do is swipe his phone over a sensor next to the entrance door.

Sam's also informed that he can turn on his phone's Bluetooth settings if he's interested, and he'll be sent a video of places of interest to visit during his stay.

Sam's already found his places of interest so doesn't turn on his Bluetooth settings, but he's glad that he's got that option should he want it.

When Sam gets to his room, he sees there's a flyer with details of some discount offers at the spa in the hotel. Using his camera phone, Sam takes a picture of a QR code, a 2D barcode about 2.5 cm square, next to the ad on the flyer; seconds later Sam gets a call from the spa, thanking him for his interest and asking if there's a time he'd like to book his relaxing massage.

Later that evening, after his massage and the visit to the bar to watch his team win for a change, Sam decides he'd like to head out for some more fun before his busy day tomorrow.

He's not sure where to head to next, so pulls out his phone and checks his SMS inbox, where he's saved the message with the link to the hotel's mobile website.

He visits the website again and heads to the section that lists local places of interest. The mobile website asks Sam "Would like to search for places of interest in your immediate area?"

Sam clicks ACCEPT to turn on his location-based settings. The site instantly refreshes and he's shown a page listing of a number of different points of interest within a 15-km radius of where he is.

Bars and restaurants are at the top of this listing, as the site remembers that these were of particular interest to Sam the last time he visited the site.

To his surprise and delight Sam's also asked if he'd like to check to see if any of his friends stored on his Google contact list are in the nearby vicinity. Sam clicks "yes" and seconds later their names appear, along with arrows above their location on the map of his surrounding area.

Sam sees old friends he didn't know would be in the area, and clicks on their name to send them an instant message letting them know that he's just around the corner and that they should come over and join him.

Sam's friends head over to join him and decide where to go next.

They see in the bar that there's an invitation to SMS their names to 6625 if they'd like to receive VIP entry at the hotel nightclub and get to the front of the queue.

They're not sure if they'll like the music at the club, but they can hear it by taking a picture of another QR code that's on the flyer for the nightclub.

Sam takes a picture of the QR code and this triggers an SMS message sent to his phone which, when he clicks the link, starts playing a 30-second clip of a selection of some of the music the club will be playing that evening.

Sam and his friends like what they hear, so they take advantage of this offer and receive their queue jump tickets as SMS messages to their phone.

They head to the nightclub and show their messages to the door staff who scan the screens of their phone to allow them entry.

Inside the club, the DJ's playing a song that Sam loves, but doesn't know who it's by.

To find out, he calls a Song Finder number on his phone and holds it up to a speaker for five seconds. As soon as the call ends Sam's sent a link that tells him the name of the song and who it's by and telling him he can click on the link at the bottom of the message that'll take him to the page on the Amazon.com mobile site where he can buy it over his phone.

Checking out and post-stay

The next morning Sam wakes up and gets ready to check out of the hotel.

He sees there's a form on his bill asking him to provide some feedback. This form is different though, as he's asked to SMS his thoughts and feedback into a Short Code 6626; this feedback, after being carefully moderated for inappropriate language, will appear on the hotel's blog.

An hour before Sam's flight, he receives a final SMS message from the hotel.

"Sam, we sincerely hope you enjoyed your stay. Please use this code XDF$352 to get 25% off your bill or a free upgrade should you wish to visit us again. We hope you have a safe trip and we look forward to seeing you again soon."

Sam can't wait for his next trip!

Note: While the above is merely an illustration of the possible guest interaction and mobile experience, marketers will realise that the possibilities of the technology described above are virtually limitless. What's even more exciting, though, is that the building blocks to such solutions are already available. All you need to do is use them to build the optimal solution to fit your needs.

Source: http://hotelemarketer.com/2009/02/16/hotel-mobile-marketing-a-hotel-guest-story-from-the-near-future/

4.3.2 Future hospitality trends

There are a number of significant trends that are having and will continue to have an impact on the hospitality industry. It is important to remember that many of these trends are interconnected and that a change or event in one may cause a change or event in another. However, hospitality businesses needs take these trends into consideration and while planning for the future. The following hospitality trends have been identified by Walker and Walker (2012:25):

- Sustainability, greening of hotels, green restaurants and green meetings. Due to human activities and their impacts on the environment, hospitality establishments need to implement strategies and procedures to minimise these impacts. Examples of these include waste reduction and recycling, the use of environmentally friendly products, water efficiency, sustainable food, energy efficiency, reduction of pollution and biodegradable detergents.

- Globalisation. Globalisation describes a process whereby individuals, groups, companies and countries become increasingly interconnected. We are currently living in the 'global village' which was referred to in the past. People can work in and travel to any country in the world. The rapid increase and growth in technology has had a huge influence and impact on the rate of globalisation and today more and more people have the ability to travel to many different countries – almost at the click of a button.

- Safety and security. The world has become more security conscious since September 11, 2001, when the World Trade Centre Towers in New York City and the Pentagon in Washington were attacked by terrorists. Airports, government buildings and various tourism attractions have increased their security measures immensely. Stricter regulations and requirements have been enforced on airline travellers and tourists have become more vigilant when travelling to ensure their personal safety. It is also important to consider the many natural disasters that are currently occurring. As was clearly evident by the Tsunami in Thailand in December 2004, the hospitality industry can be severely impacted by such

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events; including earthquakes, cyclones, tornadoes and many others. It is therefore imperative that all hospitality establishments have proper disaster plans in place and the safety of their guests and customers must be top priority.

- Diversity. The hospitality industry employs a diverse employee population and it also hosts a diverse population of guests and customers; thus making it one of the most diverse industries. Diversity is increasing in many ways, both in the work place and also in travel. Female business travel, for example, is a growing market segment of the corporate travel market (Bardi 2011:29).

- Service. Guests have many different expectations regarding different types of hospitality establishments. However, one common expectation by all guests is excellent service. All guests expect great service and this can only be facilitated through correct and regular training by the establishment. This is particularly important in the fast-paced world that we live in, as systems, processes, and guest needs and wants are changing on a daily basis and hospitality service providers need to stay abreast of these changes.

- Technology. Technology is something we experience every day. It is a driving force of change that presents both opportunities and challenges to the hospitality industry. Many systems and processes can be run more efficiently and better integrated through the use of technology to improve guest services. However, keeping these systems and processes, as well as staff, up to date with new technology is an ongoing challenge and one which requires ongoing training and upgrading. The increasing take-up and short life cycles of this technology also creates considerable challenges for hotel owners (Horner 2012). Some current examples which are sure to change soon include (Horner 2012):

  o Internet - Guests and service providers being able to make bookings for accommodation, transport, and activities via the internet.

  o Property management systems (PMS) that are being integrated with other systems and guests who are demanding high speed free internet access in their rooms.

  o Mobility - Emerging mobile technologies could revolutionize each stage of the travel experience. A guest's handheld device is now an integral part of the entire journey, not just from pre-trip planning and booking, but through the actual trip itself.

  o Smart phones and tablets could be used in hotels for room service ordering; concierge services and controlling lights, air conditioning, television and curtains

- o Social media – Guests use social media for immediate feedback after their travel experience. Hotels should use this technology to engage with both new and existing customers. It is important for hotels to actively monitor comments on TripAdvisor and do not allow negative comments to go unanswered.

- Legal issues. Lawsuits are not only becoming more frequent, the costs involved are also increasing. Government regulations and the complexity of employee relations create increased challenges for hospitality operators (Walker, 2007:27).

- Changing demographics. The world population is increasing and changing every day. For example, more and more retirees are being able to travel and enjoy hospitality services due to them having the time and money to do so. As mentioned before, women are also an important growing market segment in the hospitality industry; especially due to the increasing number of women involved in business.

- Price-value. Especially due to the recent economic crisis that was experienced globally between 2007 and 2010 and which may be experienced again in the future, the price-value factor is playing a more significant role than ever. As guests become more discerning, they want to make sure that they get value for their money and that the hospitality service is up to the standard they paid for.

- Sanitation. Sanitation is critical to the success of any hospitality establishment. Guests expect to sleep in a room and use a bathroom that has been properly and regularly cleaned and customers expect to eat healthy foods that have been prepared in a hygienic environment.

ACTIVITY

View the following links to learn more about hotel technology trends:

1. Top Hospitality Technology trends in 2012:

    http://hotelexecutive.com/business_review/2888/top-hotel-technology-trends-in-2012

Watch this

Watch the following two videos on YouTube that present interesting discussions about trends in the hospitality.

Hospitality Trends 2020: http://www.youtube.com/watch?v=TWOWG2T50M4

Major global study into the future of the hotel industry:

http://www.youtube.com/watch?v=GAm1d9IVd-g&list=PLC89D02A5EF8275B0

(You can read more about the report entitled *'Major new global study reveals hotel of the future and the ever-changing face of the hotel guest'* that is discussed in this video on http://www.amadeus.com/amadeus/x191149.html).

You can also do your own search on YouTube for more current video clips about more current trends in the hospitality industry. Use keywords such as "hospitality technology trends" or "future technology in hospitality" to search for clips on technology developments.

ACTIVITY

Review at least three different publications online (refer to the above "Watch this" for guidelines) and think about how much of the technology mentioned (e.g. social media, smart phones, tablet devices) forms part of a typical South African consumers' day.

ACTIVITY FEEDBACK

You may have noticed that many of the devices consumers already own are being used as tools to promote and market hotel products and ultimately deliver the guest experience. Some trends may seem far-fetched perhaps; however, the possibilities of technology usage to provide a better guest experience, and ultimately a happy guest, are endless.

4.4 CONCLUSION

This Learning unit has provided some insight into a number of information technology (IT) solutions for hospitality providers. this unit looked not only at technology and software which supports the efficiency and controls of the operation but also at methods of marketing the hotel product to potential customers.

With the dynamic and highly competitive environment around IT systems and software, hospitality providers have a variety of solutions to consider when implementing or upgrading their IT infrastructure. It is however important to carefully consider the solutions which are selected, based on the goals of the operation as well as the budget available for such purchases. It is also imperative that accommodation establishments and their employees (which may include you) keep up to date with current ITC developments in the tourism industry to ensure that they can satisfy their guests' needs and offer excellent service delivery.

4.5 KEY TERMS

Hospitality technology infrastructure

Property management system (PMS)

E-commerce

Point-of-sale (POS)

Guest room security system (GSS)

Telephone management system (TMS)

Grand master key

Floor/Section master key

Guest room key

Emergency master key

Online booking system

Global distribution system (GDS)

Social media

Reviews (online)

Secure payment gateway

Hardware

Software

4.6 SELF-ASSESSMENT QUESTIONS

1. Explain in your own words what a property management system (PMS) is and how it can help the accommodation operation provide an efficient service to its guests.

2. The Oasis Hotel and Spa would like to instal a PMS. The hotel has 75 rooms, a small restaurant and an exclusive spa facility. Unfortunately it only has a budget to purchase five of the ten modules which the supplier has proposed to your hotel. As Assistant General Manager you are asked to analyse the proposal.

   Modules available:

   1. Reservations

   2. Revenue management

   3. Registration

   4. Housekeeping

   5. Guest accounting/posting

   6. Call accounting/telephone management system

   7. Back office/accounting

   8. Food and beverage

   9. Marketing and sales

   10. Night audit

   Review the list of modules/applications provided and recommend the five modules which you believe are most suited to your hotel. Justify your recommendations.

3. Illustrate by means of a practical example why interfacing is important in a PMS.

4. Review the use of guest room security applications in the hospitality environment.

5. Illustrate by means of a practical example what function the point-of-sale system (POS) would serve in a hotel bar.

6. Analyse the use of social networking applications to increase marketing efforts and revenue generation in hospitality operations. Provide practical examples.

7. Provide an overview of possible future trends in the hospitality industry and the role technology will play in the guest experience.

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