



## Hospitality Industry and the Role of Information Technology

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### ABSTRACT

Information technology & communication has beyond doubts made huge contribution to the development of hospitality and tourism services. Due to the advancement in technology, the fierce competition and also due to the complexity of the hospitality and tourism markets, organizations from all over the world now depend almost on the use of ICT to plan, manage and market their services. There was a time when organizations would depend on using effective BPOs also known as call-centers to reach out to the consumers, but now the use of the internet has changed the whole scenario. Organizations have now integrated their system with ICT tools such as GDS, CRS, PMS, DMS etc to facilitate in the overall management and marketing of services especially in the hospitality and tourism industry. This paper will focus on the transformation process which has taken place in Hospitality Industry in past few years.

**Keywords : Technology, consumers, distribution, B2B, etc.**

### INTRODUCTION:

Hotels need Information technology & communication to manage their inventory. Hotel chains in particular use group-wide systems to focus on the management for single properties as well as the distribution through a variety of electronic distribution channels. Most hotel properties around the world operate a property management system (PMS) that enables them to integrate their 'back-office' operations. As a result they can improve general administration, as well as specific functions such as accounting; marketing research and planning; yield management; payroll; personnel management; and purchasing at individual properties. Increasingly these functions move on Intranet platforms, improving interfaces and allowing easier employee training. PMSs were also introduced to facilitate the front office, sales, planning, and operation functions.

This was achieved by employing a computer reservation system (CRS) to administrate a database with all reservations, rates, occupancy, and cancellations (Frew and Horam, 1999; O'Connor, 2000). PMSs and CRSs facilitate the following business functions:

- Improve capacity management and operations efficiency
- Facilitate central room inventory control
- Provide last room availability information
- Offer yield management capability
- Provide better database access for management purposes
- Support extensive marketing, sales, and operational reports
- Facilitate marketing research and planning
- Enable travel agency tracking and commission payment
- Enable tracking of frequent flyers and repeat hotel guests
- Allow direct marketing and personalized service for repeat hotel guests
- Enhance handling of group bookings and frequent individual travelers (FITs).

The proliferation of the Internet supported the development of a number of additional electronic distribution options. These include direct bookings to the hotel; hotel chains' own reservation central offices; independent reservation agents; hotel representation and consortium groups; airline CRSs and

GDSs; hotel aggregators (such as Hotels.com) and destination management systems. For hotels to manage their distribution best they need two integral components, namely yield management and guest history. The yield management assists hotels to maximize both their occupancy and room rates contributing directly to their profitability.

Revenue and yield management systems ensure that hotels optimize their revenue, by taking into consideration past and forecasted performance. Revenue management systems are critical, particularly for large properties with numerous outlets and departments. Moreover, the guest history is effectively early CRM software which records data for past guests and other intermediaries, assisting the personalization of the hotel. Hotels develop partnerships with a number of intermediaries to expand their distribution network. Hotel chains have therefore established central reservation offices (CROs) with sales agents that have access to property management systems. CROs allow both individual customers and travel trade to make reservations over the phone or Internet sites whilst they facilitate networking with a number of electronic intermediaries allowing onward distribution. Interconnectivity and interoperability between hotel CRSs and GDSs was a major problem, as each hotel and GDS has its own communication protocols and functions. Two major switch companies emerged, namely WIZCOM and THISCO, to provide an interface between the various systems and eventually to allow a certain degree of transparency. Although CROs and GDSs currently dominate hotel bookings, the Internet emerges as the prime medium for receiving travel bookings from a wide range of intermediaries. GDSs have been problematic for hotel distribution as they allow only a fairly limited number of rates to be displayed.

They abbreviate and truncate descriptions whilst they cannot display photographs, and take a lot of time to update data (O'Connor and Frew, 2000). Therefore, the Internet is much more suitable to promote hotel rooms and inventory whilst it provides the tools to increase revenue at a fraction of the traditional cost of booking. Interoperability of systems can support data and transaction exchanges to support hotels to expand their distribution network. Online bookings are showing dramatic growth and a number of online booking agencies and travel agencies, such as hotels.com,

allthehotels.com, bookings.com, hrs.com, Travelocity, and Expedia, have been established as mainstream distribution. Internet hotel bookings are projected to rise dramatically in the near future and the hospitality distribution channel becomes more complex as most intermediaries establish links with other players in the marketplace. Business-to-business (B2B) is also growing very fast. Marriott for example has begun to partner with large corporations to bring its website into their intranet's travel page creating a B2B environment and enhancing electronic collaboration. This enables corporations to benefit from special rates and added value benefits whilst it assists Marriott to increase its loyalty and profitability.

The strength of the hotel brand and the fact that consumers have always relied on booking hotels directly, instead through intermediaries, are playing a critical role in developing B2B and B2C solutions in the marketplace. Effectively these systems are managed through extranets that facilitate inter-organizational communication, allowing partners to share information and processes e- Procurement is also a successful application of extranets for the hospitality industry. Hotels are highly dependent on regular supplies of good quality and cost-efficient materials and ingredients. Eventually hotel e-procurement will integrate all aspects of the purchasing process electronically. As soon as the level of demand can be predicted from reservation levels and past data/experience, orders can be generated automatically, authorized by departmental heads, delivered and paid with little human involvement. As a result, a number of B2B applications and companies emerged to serve this demand. For example, Avendra, a procurement company, was founded in early 2001 by Marriott International, Hyatt Hotels Corp., Club Corp., Six Continent Hotels and Resorts, and most recently Fairmont Hotels and Resorts. It is an independent company providing the largest, most comprehensive procurement network for the North American hospitality and related industries, with a market estimated at \$80 billion annually. Ultimately Avendra aims to integrate systems of sellers and buyers in the hospitality industry in order to automate the entire purchasing process. Therefore, e-procurement pledges to end the hurdles of an inefficient buying system through cost controls, fully automated order processing, and corporate power to require properties to be compliant with purchasing policies. Finally, extra nets are often used for other business functions such as human resources management. They can be developed to communicate with recruitment partners, social security, insurance, and pension organization.

The hospitality industry gradually realizes that the ICT revolution has changed best operational practices and paradigms, altering the competitiveness of all hospitality sectors in the marketplace. Hospitality corporations integrate their back and front office in a framework that takes advantage of the capabilities of the Internet as well as of intranets and extranets. Convergence of all technological devices gradually empowers greater connectivity, speed, transparency, and information-sharing. As a result, hospitality organizations are gradually focusing more on knowledge-based competition and on the need for continuous innovation, forcing management to stay abreast of the dynamic developments in the marketplace (Connolly et al., 2000). Hospitality organizations are also attempting to increase their online bookings by promoting their Internet presence more aggressively and by capitalizing on partnership and collaboration marketing. As a result, multi-channel strategies are required to assist hotels to interconnect with the wide range of distributors in the marketplace. It is currently estimated that there are 35,000 websites from which consumers can book a hotel room. This raises a wide range of new challenges, including rate integrity, brand perception, segmentation, and value of customers. Stemming from the Internet, the emerging wireless devices and Bluetooth technology will allow consumers to interact with hotels constantly. This will increase transparency further and it will force hospitality organizations to rethink their pricing strategies.

The Internet has contributed unprecedented tools for com-

municating with consumers and partners and this has radical implications for hotel distribution. The hospitality industry must appreciate the 'high-tech high-touch' opportunity that emerges through the personalization of products, processes, and information. Hotels have the opportunity to cultivate relationships with their customers and adopt customer centered approaches. Technology needs to simplify the way hotels look after every single need of their customer. By using ICT-enabled processes to coordinate all departments and services, as well as all properties for hotel chains, they are able to run the business more efficiently and to add value at each stage of consumer interaction. Small and unique properties will be able to utilize ICTs strategically to demonstrate their specific benefits and to illustrate how they can innovate. By developing links with other properties they can also enhance their virtual size and compete with larger players. Larger hospitality organizations can benefit from economies of scale, multi-channel distribution strategies and from streamlining their operations through e-procurement. Larger hotels and chains will also be able to develop their globalized agenda and to ensure that their operations and strategies are coordinated worldwide, reinforcing their brand values and service promise. In any case, ICTs and the Internet will be critical for the competitiveness of both large and small hospitality organizations.

**Online travel agency:** With the advent of online travel agencies the travel has become more convenient & cheap Online Travel agency provides all the travel related services on a single click as travel reviews, the booking of travel, or a combination of both. Many travel websites, usually created by individual travelers and hosted by companies that generally provide their information to consumers for free. These companies generate revenue through advertising or by providing services to other businesses. This medium produces a wide variety of styles, often incorporating graphics, photography, maps, and other unique content. The conditions for doing business are rapidly changing. Consumption patterns are different, there are new technologies for distributing and collecting information, and the competition on the market is increasing domestically as well as globally. There is a huge competition which is faced by the traditional travel agencies with the advent of technology in the arena of Tourism world and there is a paradigm shift in the Customer relationship management in travel agency business today.

**Hotel reservation systems:** Online hotel reservations are becoming a very popular method for booking hotel rooms. Travelers can book rooms from home by using online security to protect their privacy and financial information and by using several online travel agents to compare prices and facilities at different hotels. Prior to the Internet, travelers could write, telephone the hotel directly, or use a travel agent to make a reservation. Nowadays, online travel agents have pictures of hotels and rooms, information on prices and deals, and even information on local resorts. Many also allow reviews of the traveler to be recorded with the online travel agent.

Online hotel reservations are also helpful for making last minute travel arrangements. Hotels may drop the price of a room if some rooms are still available. There are several websites that specialize in searches for deals on rooms. Large hotel chains typically have direct connections to the airline national distribution systems (GDS) (Sabre, Galileo, Amadeus, and Worldspan). These in turn provide hotel information directly to the hundreds of thousands of travel agents that align themselves with one of these systems. Individual hotels and small hotel chains often cannot afford the expense of these direct connections and turn to other companies to provide the connections. An increasing number of hotels are building their own websites to allow them to market their hotels directly to consumers. Non-franchise chain hotels require a "booking engine" application to be attached to their website to permit people to book rooms in real time. One advantage of booking with the hotel directly is the use of the hotel's full cancellation policy as well as not needing a deposit in most situations. To improve the likelihood of filling rooms, hotels tend to use

several of the above systems. The content on many hotel reservation systems is becoming increasingly similar as more hotels sign up to all the sites. Companies thus have to either rely on specially negotiated rates with the hotels and hotel chains or trust in the influence of search engine rankings to draw in customers. Social media is increasing on the internet very quickly, with millions of people, who have already joined it. It is a young phenomenon, impelled by the desire of meeting and chatting with friends, on a single platform, such as Facebook® or Twitter®. The service provided by these companies to the hotels and the online consumer is that they provide a single database from which all reservation sources draw immediate room availability and rates. It is very important that hotels integrate with all the supply channels so that their guests are able to make accurate online bookings. There are many ways of making the online reservation; most of the

online reservation systems use the centralized GDS system for making the reservation with the hotel directly. Examples of the GDS are Sabre, WorldSpan, Travelport,

**Information Technology in the Hospitality Industry** : The online hotel reservation through GDS is just the tentative reservation, means that you do not need to pay at the time of reservation, instead pay at the time of check in or check out. Traditionally, hotels were largely dependent on cards and paperwork at the front desk to keep in touch with old and current customers. They were largely at the mercy of the desires of vacationers to arrive, and on their own efforts and staff to be ready for potential surges or long droughts of occupancy. Luckily, such inconvenience and old-fashioned methods are long since passed, thanks to advances in information.

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