

Impact of IT
On
Hotel Industry
and
Hilton Hotel Corporation
By
Michael L. Schwartz

Contents

Introduction	3
History	3
Hotel Industry	3
Hilton Hotel Corporation	4
Why do Hotels need IT?	5
IT in the Hotel Industry	6
IT at Hilton Hotel Corporation	7
Analysis and Discussion	9
Conclusions	11
References	12
Bibliography	14

Introduction

This is written, in part, from the perspective of a participant/observer and my personal observations are reflected in the results and conclusions. During the period from mid-2003 through early-2006, I had significant amounts of travel, primarily business with some personal. During this time, I spent over 250 nights in hotels. These stays lasted from over night trips to week-long stays. These were largely, but not exclusively, Hilton Hotel Corporation brands. I came to be quite familiar with the Hilton on-line reservation system. When choosing a topic for this paper, I decided I would like to learn more about how Hilton came to choose this system and what other purposes it served within the corporation.

History

Hotel Industry

While hotels have been in existence since ancient times, the modern hotel traces back to the advent of railroad travel. Rail travel brought with it many more business people, initially in the form of traveling salespeople. These hotels were, for the most part, all independently owned and operated. Since these establishments were relatively small, and supplies were all obtained locally, there was no great need for a formal information system. In the 19th century, with the advent of pleasure travel, the resort hotel was born.

In 1908 the Buffalo Statler Hotel opened in Buffalo, NY, to serve the growing class of business travelers. From this hotel grew the Statler Company, which was to become the first chain operation in hotel keeping. In 1954, this became part of the Hilton Hotel chain.

Chain hotels became prevalent in the decades following World War II. With the advent of chain hotels, travelers came to expect a certain level of consistency within a hotel chain's properties. As hotels migrated from independently owned and operated establishments to parts of a larger corporation, the need for Information Systems grew. Information Systems would be needed for increased efficiencies in, among other areas, purchasing, sales, and reservations.

(Hotel, n.d., hotel, 2007, Hilton, Conrad, 2007, and *Hilton Hotel, n.d.*)

Hilton Hotel Corporation

The Hilton Hotel chain began in 1919, when Conrad Hilton purchased the Mobley Hotel in Cisco, Texas. Through acquisitions and the building of new properties, Hilton became the first coast-to-coast hotel chain in America. Conrad Hilton believed that the corporation should own each of the properties and all of the shops and restaurants that operated in the hotels. He believed that, even if these "services" were provided by an outside contractor, they reflected on the hotel and he wished to be able to maintain a high level of service quality. (Hilton, 1994, and *Hilton Hotel, n.d.*)

Today the Hilton Corporation includes ten different brand names, each directed to a different market segment, from its flagship brand Hilton Hotels to the "economy" Hampton Inn to the luxury Waldorf-Astoria Collection.

In total, the Hilton chain comprises nearly 2,800 hotels with 485,000 rooms. It operates in more than 80 countries and employs 150,000 people. (Hilton Hotels Corporation) Hilton is one of the largest Hotel chains in the world.

Although the Hilton Hotel Corporation has worldwide operations, its customers (guests) still expect a certain level of consistency in the lodging they choose and in the level of service. Therefore, it is imperative that the Hilton Hotel Corporation have an IT system which will help assure this consistency as well as minimizing expenses and maximizing returns (profits). The corporate offices and franchisees also expect to have as near real time data as possible to assure smooth and profitable operation of their hotel properties.

Why do Hotels need IT?

As noted in the History section of this study, until fairly recently, hotels were very much a local business. Hotels offered very few amenities and travelers did not expect much beyond a room with a bed. In the early 1900's, the chain hotel business began to take form and later coast-to-coast hotel chains came into existence. This all occurred along with increased business and pleasure travel. With increased travel, and with the hotel chain having business units spread over a larger geographic area, some form of Information System (IS) became necessary. With increased business and improved technology an Information Technology (IT) System became possible. IS and then IT became necessary to have a consistent method of tracking and maintaining business operations. Later, as customers expectations changed, IS/IT became necessary to ensure consistency of meeting customer needs.

Ward and Peppard (2002), beginning on page 100, discuss three questions that should be addressed before instituting an IT project. These questions, for our purposes, can be stated as:

1. How can IT affect the services offered by the hotel industry?
2. How can IT affect the market for hotel services and customer behavior?
3. How can IT impact the economics of hotel operations?

IT in the Hotel Industry

Although Hilton instituted a corporate wide common IT solution in 2003, the hotel industry, as a whole, although recognizing the need, did not yet even have any technology standards in place. (Paul, 2003) *Purchasing Systems Solutions* (2004) describes how IT can assist in managing inventory and purchasing. Of course, a principle inventory item for hotels is the number of rooms available. Although, in the short run, this is fixed, IT can help maximize the use of this inventory item. *Customer Relationship Management Solutions* (2005) gets to the key item in this study. It discusses how IT can assist in the gathering and use of customer data to be used to personalize the guests stay in the hotel. By personalizing the experience, the guest feels “special” and is more likely to return to the same hotel, thus aiding in the maximization of return on the inventory asset (the room).

Hotel Technology Next Generation, reported on June 21, 2005, details the progress made by Hotel Technology Next Generation (HTNG) in defining and implementing “... the first ever branding and certification program for hotel technology...” While this is an impressive accomplishment, it comes three years after Hilton Hotel Corporation launched its own IT System. The article goes on to describe how hotels have historically built systems with different networks for support of different applications. This redundancy caused both increased installation and maintenance costs.

The article wraps with an indication that IT will help the hotel industry to meet the changing needs of next generation of hotel customers.

Although there was not rationale given for the hotel industry not instituting standards for an IT system, we can surmise a possible reason. Historically, and until fairly recently, there were many independently owned and operated hotels. In addition, national, and international, hotel chains are a relatively recent feature of the industry. Each chain, and each independently operated hotel, had its own system. As with any industry, companies are reluctant to give up a system they already have in favor of a new, unfamiliar, system which will require substantial investment. Perhaps, although not stated, Hilton's success spurred the rest of the industry into action.

IT at Hilton Hotel Corporation

In May of 2003 Hilton Hotel Corporation announced the results of an IT program, in the works since the 1990's. This was a \$50 million proprietary technology which would link all hotels, in all brands of this multi-national hospitality corporation. Hilton calls this package OnQ. (Cuneo, 2003, and *Hilton Family Of Hotels To Utilize Enterprise-Wide Technology*, 2003). Prior to this event, the Hilton chain had many different IT systems in operation at its various brands. This was due to its growth and expansion through acquisitions of existing properties and other hotel chains. Top level management recognized that, to continue growth, increase profitability, and foster customer loyalty, a better, and common, IT system was needed.

OnQ integrates all the back office operations, as well as providing the front desk with the guest's customer profile. The guest profile includes recent stays and reports of any problems the customer reported. This allows the reception person, among other

functions, to ask the incoming guest if his problems were satisfactorily resolved and if there is anything they can do to make his stay more comfortable. This helps to make guests feel more welcome and that their comfort is of utmost importance. Hilton is committed to use of IT, employing an IT department of over 500 people, spending about \$132 million annually. (Knotzer, 2004).

Has this investment been worthwhile? Let's look at just a very few measurable results:

- ◆ In a two year period, spending by its "most-valued guests" grew by from 40% to 61%. (Knotzer)
- ◆ Increased use of online account management, by customers, has reduced the number call centers from six to four. (Knotzer)
- ◆ In 2004, the 20 largest hotels – out of over 2000 - had \$4 million annual savings due to improved operating efficiencies. (*Hilton Hotels Corp.* 2006)

In addition to these quantifiable results, there are the more qualitative measures of increased guest satisfaction and loyalty. Both of these factors have increased. The hotel, however, cannot determine how much was due to OnQ and how much to staff training and other customer-service initiatives. (Gose, 2006).

This writers' experience with various Hilton brands can attest to the extent that this IT System enhances the guest experience. The front desk staff always greets the registering guest by name, welcomes you to the hotel, and asks how your last stay at a Hilton property was. Depending on the brand, there is an email sent several days prior to the stay extending a welcome and hoping you have a pleasant stay. Again, dependant on

the brand – in my experience always with the Hampton brand - a post stay electronic satisfaction survey is emailed to the guest.

Analysis and Discussion

Figure 1, below, is adapted from Figure 5.3 on page 243 in Ward and Peppard, in an effort to show the interrelationship of the three dimensions of competence relate with the OnQ system that Hilton Hotel Corporation has instituted..

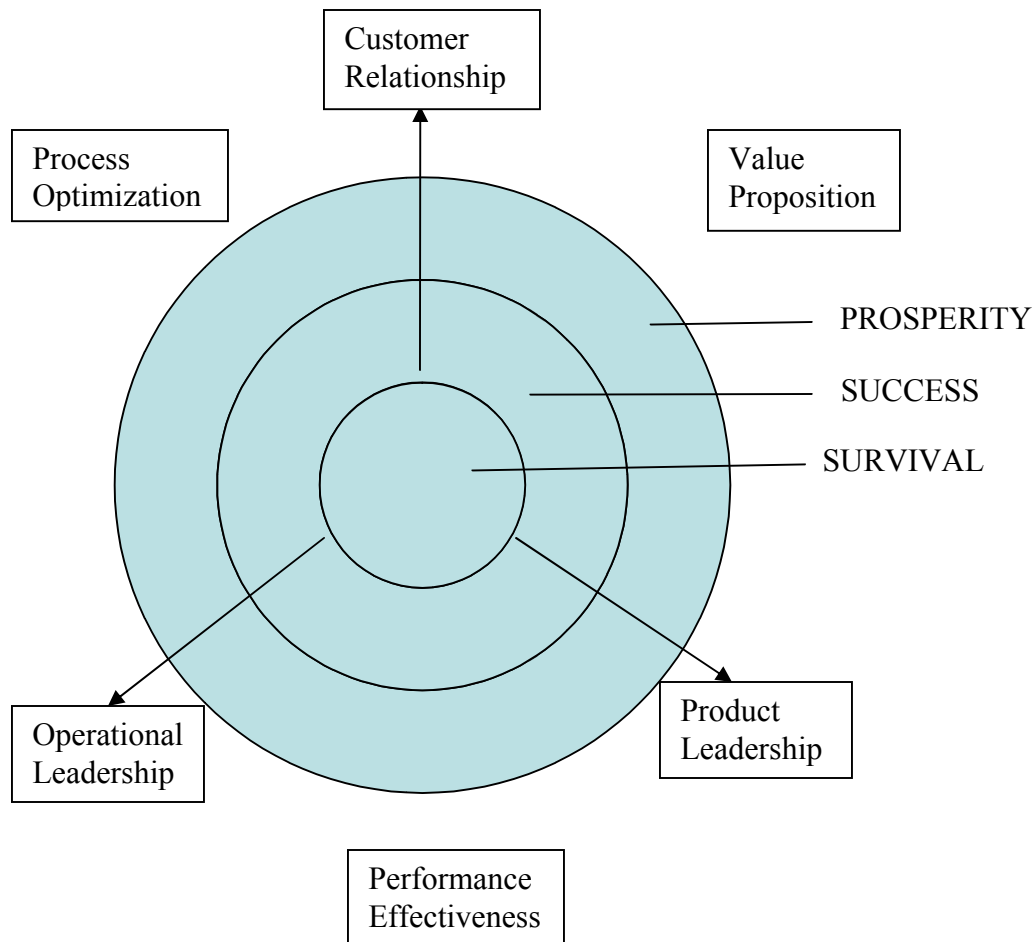


Figure 1: IT and dimensions of competence

We see, from this diagram, three factors which can lead a company from Survival to Success, and to Prosperity. Failure to excel in any one of these three will limit the Success level of the company.

To arrive at a Value proposition, the proper elements of Customer Relationship and Product Leadership must be achieved. For Hilton the value of the Customer Relationship had been increased through its Hilton Honors Web Site: (www.HHonzors.com). Through this Web Site, customers can register for their rewards points, room preferences, hotel reservations, and so on. Product leadership is shown by features of the Hilton Honors Web Site. The reservations portion of the site allows search of any or all brands by proximity to city, address, attraction, or airport to enable the guest to choose the location, brand, and pricing preferred. The guest can also specify specific amenities desired.

Performance effectiveness is the blend of elements of Product leadership and of Operational excellence. The preceding paragraph describes the elements of Product leadership. Operational excellence is shown, in part, by the savings realized by the hotel, as previously noted.

Process customization is the mix of factors from Operational excellence and Customer relationship. In terms of Operational excellence, Hilton has invested substantial funds into the development of its proprietary OnQ System to make available the same technology to all brands and all properties world-wide. Along with this they have invested in staff training programs to enhance the ability of staff to meet customer needs. From the Customer relationship side, the customers that the hotel calls it's "most valued"

has substantially increased spending at the hotels, as noted earlier. This increased spending is, no doubt, due to the customers seeing an increased value in their relationship with the hotel.

Conclusions

Hilton Hotel Corporation has demonstrated that the “right” IT System and Strategy can make a difference in the operations of the hotel. It has shown increased customer satisfaction, and significant cost savings, in addition to other measurables not discussed here.

Clearly, Hilton Hotel Corporation has “lead the way” for IT in the hotel industry, with implementation of a consistent IT system throughout all of its properties. Hilton has enhanced its operations and level of competence in each of the dimensions in Figure 1. This has lead to increased customer satisfaction and improved profits by way of cost reductions. In order to maintain this lead, Hilton needs to continue, and expand, its efforts by monitoring key metrics, such as:

- Customer feed back/Customer satisfaction levels
- Operating expenses
- Profit margins
- Return on investments, and
- Inventory turns on consumables.

This paper shows that an IT System that is properly designed for the application where it will be used will result in increased customer satisfaction and improvement in operational effectiveness.

References

- Cuneo, E., C. (2003, May 26) *Hilton's \$50 Million Answer*. Retrieved February 6, 2007, from <http://www.informationweek.com/news/showArticle.jhtml?articleID=10100065>
- Customer Relationship Management Solutions*. (2005, March 16). Retrieved February 6, 2007, from <http://www.microsoft.com/industry/hospitality/solutions/crm.msp>
- Gose, J. (2006, July 17). *Pleasing Guests, Cutting Costs*. National Real Estate Investor. Retrieved February 6, 2007, from <http://www.printsthis.clickability.com/pt/cpt?action=cpt&title=Pleasing+Guest%2C+Cutting+Costs&re...>
- Hilton, C. (1994). *Be My Guest* (1st ed.). New York: Fireside A Division of Simon & Schuster.
- Hilton, Conrad. (2007). *Encyclopædia Britannica*.. Retrieved February 10, 2007, from Encyclopædia Britannica Online Library Edition: <http://library.eb.com/eb/article-9040487>
- Hilton Family Of Hotels To Utilize Enterprise-Wide Technology At Check-In For Better Guest Recognition And Enhanced Service* (2003, May 8). BUSINESS WIRE. Retrieved February 6, 2007, from <http://phx.corporate-ir.net/phoenix.zhtml?c=88577&p=irol-newsArticleOther&ID=410209&highlight=>
- Hilton Hotel*. (n.d). *Wikipedia, the free encyclopedia*. Retrieved February 11, 2007, from Reference.com website: http://www.reference.com/browse/wiki/Hilton_Hotels
- Hilton Hotels Corp*. (2006, February 15). The Winners Guide-Editorial-CIO. Retrieved February 6, 2007, from http://www.cio.com/archive/021506/eva_guide.html?page=6
- Hilton Hotels Corporation Agrees To Acquire Lodging Business of Hilton Group PLC*. (2005, December 29). Retrieved Powerpoint Presentation, February 6, 2006, from. <http://www.worldwidehilton.com>
- Hotel. (n.d.). *Columbia Electronic Encyclopedia*. Retrieved February 11, 2007 from Reference.com website: <http://www.reference.com/browse/columbia/hotel>
- hotel. (2007). *Encyclopædia Britannica*. Retrieved February 10, 2007, from Encyclopædia Britannica Online Library Edition: <http://library.eb.com/eb/article-9041167>

Hotel Technology Next Generation (HTNG) Making Significant Progress Towards its Objectives of Improving Systems Interoperability in the Hospitality Industry. (2005, June 21). Hotel Online. Retrieve February 6, 2007, from http://www.hotel-online.com/News/PR2005_2nd/Jun05_HTNGrelease.html

Kontzer, T. (2004, Aug 2). *Data-Driven Hospitality*. Information Week. Retrieved February 6, 2007, from <http://www.informationweek.com/showArticle.jhtml?articleID=26100873>

Paul, R. A. ((2003, June). *Let's Get Talking*. Hospitality Technology Magazine Feature Article. Retrieved February 6, 2007, from <http://www.htmagazine.com/archive/htjune/art7.htm>

Purchasing Systems Solutions. (2004, November 11). Retrieved February 6, 2006, from <http://www.microsoft.com/industry/solutions/purchasingsystems.msp>

Ward, J., & Peppard, J. (2002). *Strategic Planning for Information Systems*. (3rd ed.). UK, Cranfield, Bedfordshire: John Wiley and Sons LTD, 2002 ISBN 0-470-84147-8

Bibliography

- AT&T And Hilton Hotels Corporation Solidify Strategic Relationship With \$67.5 Million Agreement.* (2004, June). Retrieve February 6, 2007, from <http://www.corp.att.com/news/2004/06/23-13122>
- Award-Winning Technology from Hilton Hotels Corporation.* (2005). OnQ™. Retrieved February 6, 2007, from <http://www.worldwidehilton.com>
- Chisholm, Charlyn K. (n.d.). *Top Ten Technology of the Future.* About: Hotels/Resorts/Inns. Retrieved February 6, 2007, from http://www.hotels.about.com/od/hiphotels/tp/future_hotels.htm
- Dertouzos, Michael L., Lester, Richard K., & Solow, Robert M. (1990). *Made In America.* New York: Harper Perennial A Division of Harper Collins Publishers.
- Following a Successful Pilot-test, 2,300 Hilton Branded Hotels Will Offer Remote Guest Check-in via the Web; eCheck-In Capability Available to Certain Guest Reward Program Members.* (2005, December 12). Hotel Online Special Report. Retrieved February 6, 2007, from http://www.hotel-online.com/News/PR2005_4th_eCheckIn.html
- Heskett, J. (2007, February 2). *Is There Too Little "Know Why" In Business?* Harvard Business School. Retrieved February 12, 2007, from <http://hbswk.hbs.edu/item/5627.html>
- Hilton's Customer-information System, Called OnQ, Rolling Out Across 8 Hotel Brands; Seeking Guest Loyalty and Competitive Advantage with Proprietary Technology.* (2004, Aug. 31). Retrieved February 6, 2007, from http://www.hotel-online.com/News/PR2004_3rd/Aug04_OnQ.html
- Hilton Hotels Corporation Agrees To Acquire Lodging Business of Hilton Group PLC.* (2005, December 29). Retrieved Powerpoint Presentation, February 6, 2006, from. <http://www.worldwidehilton.com>
- Hilton Hotels Corporation, 2003 Annual Report.* (n.d.). Retrieved February 6, 2007, from http://media.corporate-ir.net/media_files/irol/88/88577/reports/2003_ar.pdf
- Hilton Hotels Corporation, 2004 Annual Report.* (n.d.). Retrieved February 6, 2007, from http://library.corporate-ir.net/library/88/885/88577/items/146326/2004_AR.pdf
- Hilton Hotels Corporation, 2005 Annual Report.* (n.d.). Retrieved February 6, 2007, from http://library.corporate-ir.net/library/88/885/88577/items/190737/2005_AR.pdf

- Hilton Hotels Corporation's Total Technology Solution.* (2003, November). OnQ™. Retrieved February 6, 2007, from http://www.hiltonfranchise.com/SF/News/OnQ_p2.html
- Holmes, E. (2006, December 26). *New Year, New Trip Planning.* The Wall Street Journal Online. Retrieved February 10, 2007, from http://online.wjs.com/article_print/SB116708914257159160.html
- Hotel Technology Next Generation makes the hotel room more personal.* (2005, July 6). Hotel OnLine. Retrieved February 6, 2007, from <http://www.microsoft.com/industry/hospitality/businessvalue/htgarticle.msp>
- Location-Based Services.* (2006, July 27). Retrieved February 7, 2007, from <http://www.microsoft.com/industry/retail/solutions/locationbasedservices.mspx>
- Panettieri, Joseph C. (2004, May). *Hilton HIS: Long Term Partners.* Ziff Davis Channel Zone. Retrieved February 6, 2007, from http://findarticles.com/p/articles/mi_zdzc/is/200405/ai/ziff126758/print
- Shein, E. (2003, July 15). *Hilton Hotels CIO Talks 'OnQ'.* Retrieved February 6, 2007. from <http://www.cioupdate.com/insights/article.php/2235231>
- Solutions for the Hospitality Industry.* Retrieved February 6, 2006, from <http://www.microsoft.com/industry/hospitality/solutions/default.mspx>
- Wheelen, T. L., & Hunger, J. D. (2006). *Strategic Management and Business Policy.* (10th ed.). NJ, Upper Saddle River: Prentice Hall, ISBN: 0-13-149459-7.
- Whitney, K. (2006, October). *Hilton Hotels: Training IT Team Members to Succeed.* Media Tec. Retrieved February 6, 2007, from <http://www.certmag.com/articles/anmviewer.asp?a=2364&print=yes>