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Reviewing The Influence Of IT Applications Such As Implementing Online Distribution Channels In Hotel Industry

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Purpose: *This research aims to study the influence of information technology applications, particularly electronic distribution channels, on success and failure factors that have been devoted to the handling of routine operational problems in the hotel industry.*

Design/methodology/approach: *Reviewing personal interviews and surveys of structured questionnaires done by senior level managers of hotels. The collected data has been analyzed to generate the findings of this research.*

Findings: *According to this analysis, IT applications were not used merely to replace the paper work and the traditional manual system but also to improve customer service and enhance management power. The results emphasize that the growing of online distribution channels have affected the ability of hotels to support employees, enhance the quality of service, improve communication and efficiencies, gain competitive advantage, maintain relationship with customers and increase profitability.*

Research limitations:

Most of the findings in this study are based upon the data and interviews gathered by other fellow researchers. There is no testing for accuracy of these findings.

The surveys and interviews used for this analysis were performed on selected hotel (rated three stars and above) in selected locations, which are not inclusive of all the hotels in one particular country; therefore the results may not be extensively applicable.

In some of interviews there isn't clear cut differentiate between online distribution channels and travel agents that makes hard to bring out clear results from them.

Originality/value: *This research attempts to contribute to the knowledge of hotel owners and managers in relation to the decision-making processes for the implementation of IT infrastructures such as “online distribution channels” in the context of hotel industry and facilitate hoteliers to incorporate IT into their efforts to remain competitive in the industry.*

Keywords: *hotel industry, IT applications, online distribution channel, failure/success factor*

JEL Classification: *F14, M15, C16*

Introduction

The traditional hotel industry has placed great emphasis on the provision of quality service to guests. With the increasing demand for intensive information from customers and hotel practitioners, hotels have adopted computer-based IT facilities to improve operational efficiency, reduce costs, and enhance service quality (Camison, 2000; Cobanoglu *et al.*, 2001; Sigauw & Enz, 1999; van Hoof *et al.*, 1996).

Hotel industry has been changed from a traditional hands-on, low-tech, locally based industry into a global industry that effectively utilizes technology and implements information technology to combine high-touch and high-tech to the benefit of customers, employees and hotels (Kandampully, 2002).

The “development in IT is creating millions of electronic connections around the globe, connecting and transforming information to people, the business community, industries, regional and international community’s” (Sheldon, 1997). One way of using IT in tourism and hospitality industry is distribution. “Effective distribution is especially important for hotel because of their perishable inventories” (O’Connor & Frew, 2002). The impact of information technology since the advent of the World Wide Web

has significantly changed and even transformed the structure of tourism distribution (Buhalis & Laws, 2001; Robin & Wang, 2010). Traditionally, customers had two alternatives to reserve a hotel room – directly approach the service provider (hotel) or to use services of a travel agent (intermediary). However, a survey conducted in 2001 by Forrester Research (Harteveldt *et al.*, 2001), indicated that the Global Distribution System (GDS) would continue to remain the most important channels of distribution for hotel industry and the like.

In addition, Internet will change the traditional travel and distribution scenario. Because of the Internet, several intermediaries can be by-passed to reach directly to new customers. According to research carried out by Jupiter Research, the number of people who have bought travel product over the internet is likely to double from 18.6 million in 2001 to 38.6 million by 2007. The key benefit of web distribution is its direct route to the customers. Great cost saving can be achieved by encouraging customers to book electronically, which has made many tourism suppliers very excited about this new distribution channel (O'Connor, 1999). This technology-induced structural change offers more choices to costumers; it also fosters an environment of fiercer competition for channel participants (Douglas *et al.*, 2004).

Frew (2000 a, b) emphasized that technology will bring about a major revolution in the hospitality industry. To efficiently manage the several hundred rooms in each hotel at an international standard of service, hotel managers need updated management know-how and the latest IT systems.

In recent years, IT has been a primary key that has helped service firms to innovate their service offers and add value to what they offer to their customers. Technology in services is not intended to replace employee, but to support it. Indeed, technology can improve the competitive advantage of an organization only if it can support the employees and their performance to offer better service to the customer. IT provides an organization with a better way of doing things-thus benefiting the firm, its employees, customers, return of investment (ROI).

By implementing the IT applications, the information acquisition, analysis and storage has become a powerful tool that presents junior members of staff in a hotel with an opportunity to take responsibility for

making on-the-spot decisions without the need to consult senior management and this ultimately leads to customer satisfaction.

Information and communication technologies (ICT) crucially impact travelers' knowledge, attitudes and behaviors. The hotel industry is also experiencing increased globalization, competition, higher customer turnover, growing customer acquisition costs and rising customer expectations, meaning that hotels' performance and competitiveness is significantly dependent on their ability to satisfy customers efficiently and effectively (e.g. Connolly & Olsen, 2001; Pine *et al.*, 1998). The online systems are becoming the main communication channel for the Business to Consumer market in the hotel industry. Therefore, hotels must exploit the online systems in order to develop trust and increase their market share.

The number of travelers who use the internet to plan and book trips continues to grow at a rapid rate, according to two reports by the Travel Industry Association of America (TIA). In 2000, more than 59 million online travelers used the internet for information on destinations or to check prices or schedules, growing 395 percent over the last three years. According to a survey undertaken by GMI, 51 percent of customers made their buying decisions based on web searches (Emarketer, 2005).

Information technology can be considered as the "commodity products" of this century. It involves the assets and capital resources comparable in magnitude with property or labor. Electronic Distribution Channels, in turn, have huge impact on product innovation, development and customer satisfaction. Specially recently, customers have been able to successfully consolidate their trips with major cost reduction during the shortest available period. Now this model has significantly improved customer travel experience.

This research provides a more realistic analysis of the potential benefits of IT applications to the hotel industry. Hotel managers can then plan their business strategies on IT development in their hotels and take full advantage of IT such as online distribution channels.

Problem Statement

Hoteliers should challenge the difficulties making the implementation of information technology into their system problematic.

- Some of employees don't have enough relevant education for working with these new platforms.
- Managers are reluctant to accept using of new systems, because they are used to traditional working, and they resist change (traditional people).
- Customers have problem getting used to the idea of online distribution network systems, it's difficult to build trust.
- Some information technology applications are not user-friendly enough in terms of integration and implementation; and also they face compatibility issues in regards to other system platforms, which make it difficult to interact with them.

Methodology

The aim of this study is to investigate the implementation of “online distribution channel” which is an IT application in the hotel industry. Online distribution channel is an Internet based infrastructure that involves blogs, websites, online reservation portals and in general every online application which is responsible for introducing information to hotel customers.

To do so, several surveys and interviews with senior level managers of hotels have been gathered and analyzed. As the result, the overall success and failure profiles of the project have been presented.

Success Profile

Technology becomes a main source of sustainable competitive advantage and a strategic weapon, especially in the tourism and hospitality industries, owing to the pivotal role information plays in the description, promotion, distribution, amalgamation, organization and delivery of tourism products (Poon, 1993; Sheldon, 1997). Buhalis and Kaldis (2008) stated that only organizations that use IT strategically can develop their e-distribution and remain competitive in the future.

As mentioned earlier, based upon the surveys and interviews performed on relevant managers in the industry, the advantages and success factors associated with the introducing the “online distribution channels”

are presented. Data collected from these structured interviews and surveys was analyzed to relate it with four success statements.

Statement 1

Respondents to the surveys (Law, 2005) believe that websites (electronic intermediaries) are a more flexible channel for information search and reservations and also they provide easier access to information by customers. Additionally, the numbers show that such a finding directly relates to the demographics of the respondents such as their age group and internet purchase experience (Kim & Kim, 2004).

Statement 2

According to FHRAI Survey 2004-2005 average occupancy percentage of 3 to 5 star hotels increased to 76 percent in 2004-2005, after the introduction of online distribution channels in small and medium sized hotels, compared to 69 percent in the previous year.

Statement 3

According to research carried out by Jupiter Research, the number of people who have bought travel product over the internet is likely to double from 18.6 million in 2001 to 38.6 million by 2007. The reason being suitability for simpler and straightforward bookings when only service provider is involved.

However, this does get complicated with the increase in the intermediaries and the service provider.

Statement 4

It is estimated that by 2010 around 18 percent of revenues for hotels will come from hotel bookings made on the Internet, compared to the current 8–10 percent of revenues. The active role of these intermediaries may be viewed as a positive development for the industry. Online bookings are more cost effective, tend to attract customers that are more affluent and reduce reliance on more expensive distribution channels.

Figure 1 depicts the effectiveness of the last two statements over three consecutive years.

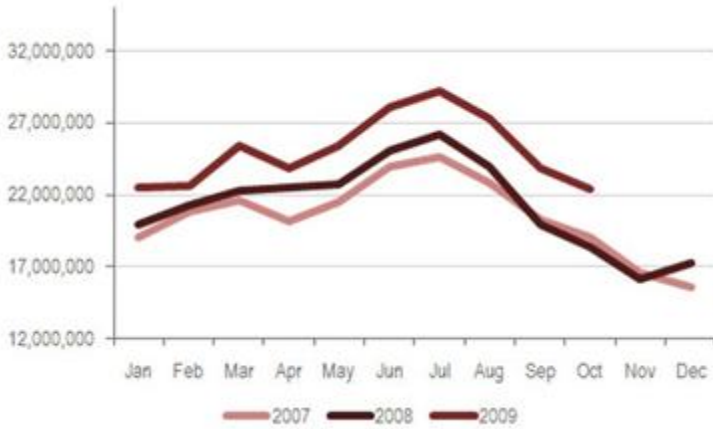


Figure 1: Traffic to Hotel supplier Websites (compete.com)

According to the Executive Managers major reasons that a project may succeed, according to priority are: User Involvement, Executive Management Support, Clear Statement of Requirements, Proper Planning, Realistic Expectations, Smaller Project Milestones, Competent Staff, Ownership, Clear Vision & Objectives and Hard-working, Focused Staff. The three initial factors play the most critical role and make the success chances over a much greater margin and without them failure chances increase dramatically.

Introduction of IT into the hotel business, in many ways, can develop the involvement of the user. According to a Standish Group report case study: Today, a customer can dial from a cellular airplane telephone at 35,000 feet, check into their hotel room, schedule the courtesy bus to pick them up, and have their keys ready for them at the express desk. This new reservation system was ahead of schedule, under budget, with extra features.

Project Success Potential

This paper studies eight parameters regarding the potential success factors of the project. There are a few questions related to each parameter:

1. *User Involvement:*
 - Do I have quality user(s) relationship?

- Do I make involvement easy?
- Do I find out what the user(s) needs?

In this study, according to the survey (Dabas & Manaktola, 2007) the factors are:

- Developing trust;
- Increasing the flexibility and ease of use;
- Improve customer satisfaction;
- Customer recognition (profitable customers);
- Speed of service;
- Enhance quality of service and product;
- Support the delivery of better products or services to customer;
- Providing tourists with pre-trip and in-trip information by online distribution channels (Xiaoqiu, 2003).

2. *Executive Management Support:*

- Dose the project team have a stake? (Profit sharing)

According to personal interviews with managers (Law, 2005), average annual income level of most of the employees and staff in 2003 are in a very close range; which is in absolute contrast with the case of the year 1997 where there was a huge gap between the employee's income level which was either too high or too low. Therefore the gross income of the hotel belonged to a limited group; whereas in 2003, almost 77% of staff earned the average level of income and shared the profit related to the implementation of information technology. This significantly improved the commitment and retention of employees to their jobs. Average income level of 1997 was in the range of 10,001-300,000, but in 2003 the average shifted to 300,001-600,000.

Table 1: Hotels’ and respondents’ profile (Law, 2005)

	1997 (n=48) Percentage of total	2003 (n=21) Percentage of total
<i>Respondent’s educational background</i>		
Highest academic qualification		
• Secondary school or below	39	35
• Diploma	29	20
• Degree	32	45
Major		
• Computer science/Engineering	38	52
• Administration/Accounting	33	14
• Others	29	33
<i>Average annual budget for department</i>		
< \$ 10,000	3	0
\$ 10,001-300,000	53	15
\$ 300,001-600,000	0	77
\$ 600,001-900,000	7	0
\$ 900,001-1,200,000	20	8
> \$ 1,200,001	17	0

3. *Developing a Clear Statement of requirement:*
 - Do I have a concise vision?
 - customer satisfaction;
 - improve communication to attract more customers (one of important aims in hospitality is improving communication);

- increasing market share;
 - increase the value added to the company.
- Can I measure the project success/failure?
 - Time saving measurement
 - Cost saving measurement
4. *Proper Planning:*
- Do I have the right people?

According to Rob Law, the employee’s education level improved in computer science and engineering field in 2003 comparing to 1997 (Table 1), and was more relevant to their working field.

5. *Setting Realistic Expectations:*
- Can I manage change?
 - Online distribution channels bring revolutionary changes to the structure of the industry, an opportunity to sell directly (Xiaoqiu, 2003).
 - Change from traditional way (paper system) to using IT applications and online channels should be managed by wisdom and goal and handling existing constraints. Referring to Law, there are more constraints on resource, budget, time and inconsistency of user’s computer knowledge for organizing training sessions in 2003 comparing to 1997 (Table 2).

Table 2: Behavioral information on hotels (Law, 2005)

	1997 (n=48) Percentage of total	2003 (n=21) Percentage of total
<i>IT training provided for staff</i>		
On-the-job training	79	95
Course-based	33	57

Train by group	8	0
<i>Practical issues/difficulties in organizing training sessions</i>		
Resource and budget constraints	10	33
Time constraints	13	14
Inconsistency of user's computer knowledge	0	5
Human/Managerial factors	21	0

6. *Small Project Milestones:*

- Can I measure progress?
- Am I setting time limits?
- Am I using a prototype tool?
 - Time saving
 - Cost saving
 - Assessing short time systems for testing

7. *Competent Staff:*

- Do I know the skills required?
- Do I have a training program?
 - IT training provided for staff
 - On the job training
 - Course based training
 - Facilitation of employee empowerment
 - Support employees and enhance their capacity to offer superior service

8. *Clear Vision and Objectives:*

- Is the vision aligned with company goals?
- Are the objectives achievable?
- Are the objectives measurable?
 - Customer satisfaction

- Increase profitability
- Improve communication

IT applications and online distribution channels pursue these goals and improve them (contribute to reach the hotel goals).

Failure Profile

There are several predicaments involved, which ultimately may result into the failure of the proper implementation of IT applications in the hospitality industry. It is well known that effective IT applications require the knowledge and professionalism of both the managers and the operating staff (Go *et al.*, 1994). A challenge now faced by almost all hotels is the existence of a large gap in the management hierarchy, especially between senior and junior directors in relation to IT utilization. Such a gap is likely due to the lack of enthusiasm in senior level managers in implementing IT to their capabilities while junior decision makers and operators are pro IT utilization.

According to Borsenik, most hotel decision makers don't receive adequate training in IT (limited technical knowledge). Also they don't seem to realize the importance of IT for the purpose of developing business strategies.

On the whole, junior managers are largely disconnected from senior management positions, and they don't have direct involvement in important and on-the-spot decision making of the hotel.

During the employees training time, there were constraints and difficulties in organizing training sessions, as revealed by interviewees (Table 2);

- Budget constraints (33 percent)
- Time constraints (14 percent)
- Inconsistency of user's computer knowledge

IT is still considered as a tool or an image instead of as an important constituent in the strategic planning process of a hotel.

Essayed (2006) states that: "In Emmer *et al.* (1993), O'Connor and Frew (2002), O'Connor and Piccoli (2003) and Essawy (2004) studies it can

be noted four main problems facing hotelier in their dealing with online distribution channels. These problems are (Dabas & Manaktola, 2007);

- Complexity (complicated nature of these channels and managing of them)
- Price transparency dilemma
- Quality of information displayed
- Building relationship with customers, the main element in sustaining demand and developing the hotel brand name over the web sites (Nassar, 2002; Essawy, 2004).

Discussion and conclusion

The international hospitality industry is facing a high-technology implementation revolution. Their clients demand sophisticated and “high-tech” services, which has become a novel challenge for the top managers to adjust themselves to the requirements of the new century. Their priority must be to find easy and fast methods to integrate the new complex IT systems for a variety of services into their current and existing old-school business activities. To overcome their lack of knowledge, managers need to be educated to become up to speed with on-going trends in hospitality industry. They must ultimately realize the important fact about the distribution channels in today’s business that “if you are not on-line, you are not on sale”.

The suggestions offered through this study to the hotel properties would be:

1. To extend their vision beyond traditional channels toward electronic inventories.
2. To consider the expenses involved in installation and implementation of the high-tech electronic distribution channels as not over-priced and just suitable for hotels.
3. Propose enough and on-going education for managers of all levels into the intricacies of electronic distribution systems.
4. Perform system evaluation of both software and hardware trends as well as IT supplier contacts to ensure active and profitable operation of IT facilities to the full extent of their capability.

5. Provide professional advice and guidelines to department managers on IT capabilities.
6. Remind IT specialists and professionals of the importance of the business milestones.
7. Involve managers at all levels into the decision-making process.
8. Contribute to IT assets more than technical applications but as part of the management approach to quality service in the business.

The future progress of e-hospitality will depend on how well existing problems and issues fulfill, and how long the process will take.

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