# Strategic integration of feedback (reputation) mechanism with Customer Relationship Management (CRM) system in the hotel sector

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# ABSTRACT

The purpose of this paper is to examine and develop a better understanding of reporting service experience in the hotel sector and address the need for effective analysis and communication of online customer feedback. In addition, this paper stresses the value of CRM applications for hotels and how these applications can assist hotel managers in collecting and analyzing feedback reports from their quests. Finally, this paper attempts to propose a conceptual framework with some key modules that a hotel CRM should employ and presents alternatives on how the hotel's reputation system can have access to outsourcing information.

Key words: Feedback (reputation) mechanism, CRM, hotel industry

# INTRODUCTION

The rapid development of the Internet and e-commerce has brought changes in the marketplace. Online communities gain importance over their traditional counterparts. Online portals allow individuals to purchase books, movie tickets, and music CDs as well as hospitality services. Those consumers make purchase decisions based on other customers' opinions on the Internet.

Especially, for tourism businesses, the Internet offers the potential to make information and booking facilities available to a large number of tourists at relatively low costs. It also provides a tool for communication between tourism suppliers, intermediaries, as well as end-customers. The American Association of Travel Industry estimates that 67% of the travelers with an Internet connection use the Web to search information related to tourism destinations (Reino et al. 2012). There are many customer review websites. Tourists check comments before making any decisions. Many social media Web sites offering hotel rooms and travel amenities provide online platforms which consumers communicate with others who have information or previous experience about the hotels. Prior studies (Vermeulen and Seegers, 2008) show that positive on line reviews have a significant impact on customers' decision-making process. Another study (Daramola, 2009) stresses that having access to concrete information about the social attributes of a prospective place of visit can prove very beneficial in making more informed decisions about the choice of travel destination.

In some cases, hotels have established web applications which contain electronic forms for complaints and comments, thus improving the dialogue directly with guests. In this way, hotels create opportunities to interact with their customers, though there is a lack of physical interaction that characterizes the new market transactions. As of this, hotels are in a better position to evaluate the total customer experience that influences the customers' perceptions of value and service quality, and further their loyalty and retention. Moreover, proactive hotels shift their focus towards building close relationships with their guests through the employment of Customer Relationship Management (CRM) systems (Sarmaniotis et al. 2010). CRM provides a useful tool to

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hotel managers towards adoption of micro-marketing in this "Age of the Individual" and relationship marketing (Gilbert et al. 1999). However, even the "technology oriented" hotels experience difficulties to deal with the online reviews about their business. The rapid development of Web technology has resulted in an increasing number of hotel customers sharing their opinions on the hotel services they receive. Managing on line reviews of customers is fundamental to the marketing success of hotels. Their lack of ability to respond to negative comments, could easily deteriorate customers loyalty and, even worse, lead to negative word-of-mouth (Au et al. 2009). Effective analysis of online customer comments and especially of negative comments is needed through organized service recovery approaches. Furthermore, hotel managers should entail the customer complaining behavior variable in the CRM system and especially in the CRM software and connect it with the reputation management system. In such a way, the CRM system will be provided with a large collection of online hotel customer reviews and more reliable information will be available to hotel managers.

This paper presents a comprehensive review of literature related to web applications (reputation systems) reporting customer service experience in the hotel sector and addresses the need for effective analysis of online customer feedback and thus for a better communication with them. In addition, this paper stresses the value of CRM applications for hotels and how these applications can assist hotel managers to collect and analyze feedback reports from their guests. Finally, this paper attempts to propose a conceptual framework based on the literature findings of both Management Reputation Systems and CRM. Thus, the main objective of this paper is to propose a model integrating CRM modules feedback information with potential Reputation Systems sources. In the end of the paper, implications for those involved in the development of a data warehouse for hotels are made and suggestions for future research are made.

# LITERATURE REVIEW

## Customer Relationship Management

In order to survive in today's competitive marketplace, hotels should formulate marketing strategies in a way, which will be directed towards satisfying their guests' needs and, therefore, retaining them. Hotel guests have recently heightened expectations of the quality of their experiences (Drohan et al. 2009). In order to meet customer expectations, hotels should have a good understanding of their guests' needs and wants (Heung et al. 2010).

Customer Relationship Management (CRM) is a management philosophy and strategy which enables a company to optimize revenue and increase customer value through understanding and satisfying the individual customers' needs (Liu and Yang, 2009). Information technologies offer companies alternative applications of improving customer relationships and mainly enable companies to attain customization. Customer Relationship Management (CRM) applications take full advantage of technology innovations with their ability to collect and analyze data on customer patterns, interpret customer behavior, develop predictive models and so on.

Hotels are often eager to look for effective and efficient activities that can identify, select, acquire, develop, and keep increasing loyal and profitable customers (Fan and Ku, 2007). Consequently, the number of hotels investing in the development of structured CRM programs has increased over the last years (Songini, 2001). According to Petzer et al. (2009) the ability of an organization to build positive relationships leads to success in the long run and that CRM is becoming a key issue in hospitality marketing theory and practice. Gilbert et al. (1999) argue that relationship marketing is highly suitable for the hotel industry. Piccoli et al. (2003) stressed that the hotel sector has the greatest potential of all industries with regards to CRM application. Sigala (2005) discussed the integration of CRM in hotel operations. Samanta (2009) underlined that the e-CRM system has assisted hotel business to manage more effectively their reservations and serve their customers as fast and as effective as possible. Assimakopoulos et al. (2010) state that, in the hotel sector, CRM systems do not embed efficiently marketing variables like customer satisfaction, loyalty, customer' complaining etc. Belou and Andronikidis (2009) state that Greek hotels are not open to messages sent by customers, and, thus, they are not doing their best in order to retain them.

All hotels are collecting information about their customers at reservation, check-in, check-out, and sometimes during their stay. The point is the ability of hotels to facilitate the collection of, and access to, customer information, especially those that concern guests feedback, and furthermore, to exploit data mining capacities of CRM (Min et al. 2002; Papaioannou et al. 2011).

Particularly, in the hotel industry, guests' complaints seem to be inevitable (Ngai et al. 2007). Guest complaints should be encouraged so that hotel management could have the opportunity to improve consumer perception of service quality. Complaints are useful sources of information that help marketers identify sources of dissatisfaction (Fornell and Westbrook, 1987; Nyer, 2000, Zineldin, 2006).

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However, many Web sites use feedback forms to gather data from their online users and customers. Customers access by clicking on buttons displayed on the site. Nevertheless, few CRM systems make use of this "internal" customers feedback. Even more there could be information which could come from "external" sources and which the CRM system does not receive.

### Guest Feedback (Reputation) System

Gathering feedback from customers through organized marketing policies (e.g CRM) should be a daily activity of a company in order to maintain satisfied and loyal customers (Holloway and Beatty, 2003). The importance of having an effective system to deal with possible problems and to handle them properly is that it increases retention rates and creates a positive word-of-mouth. However, as we mentioned before, there is a lack of entailing the customer complaining behavior variable in the CRM systems applied and especially in the CRM software.

Especially, in the hotel industry, where customers are becoming more vocal and more demanding in this era of intense competition, hotels must consider getting feedback from their guests. Heung (2010) pointed out that collecting and monitoring feedback allow hotels to assess and upgrade their services and facilitate guest loyalty. Moreover, many authors have used the data source from e-tourism feedback systems ("external" to the hotels) in order to investigate service quality issues, or customer loyalty and satisfaction. Obviously those feedback reports could provide opportunities to identify and understand the determinants of customer satisfaction.

Feedback is very essential in the process of communication and is one of the keys to good customer service. When you get the feedback, it is considered to be the sign of complete communication. In case of hospitality industry, feedback is an important aspect, as it solely depends on the customers and customer satisfaction. Especially, in hotel industry, it is very crucial to know the likes and dislikes of the customers, in order to cater them better. Customer feedback form is one of the best strategies for customer retention, as the customers feel involved in the process. Good customer relationship management can be developed with the help of customer feedback form. Customer feedback also helps in recognizing company's strengths and weaknesses.

However, customer feedback comes from a growing number of channels, including in-person, phone, comment cards, surveys, email, Web, social networking, mobile devices and more. Customer feedback can come through Web-based surveys, focus groups, call centers, on booking, campaign responses, e-transactions, support lines etc.

On the other hand, the rapid development of the Internet and e-commerce has brought numerous customer review websites. Consequently, customers have several choices of responses when they experience a service failure or success. There is a range of e-channels which provide a fast and easy method to express one's experience (Au et al. 2009) Particularly, guests use hotel reviews sites, such as tripadvisor.com, hotelchatter.com and many others to express their feelings. Additionally, tourists increasingly check comments before making any decision (Reino, et al. 2012). Prior studies (Houser and Wooders, 2006) showed that customers seriously consider online feedback when making purchasing decisions, and may be even willing to pay more for products/services with good reputation.

The Internet has essentially enabled large-scale word-of-mouth networks, leading to online reputation mechanisms known as reputation systems. After every transaction and after every consumption of a physical or information good, the consumer of this good has obtained some new private information that he/she could share with other members of the same community. Reputation systems aggregate this information and make it easily accessible to the whole community. There is strong evidence that consumers take the aggregated information from these sources of feedback into account when making purchase decisions (Dellarocas, 2010).

Using the Internet as channel for reporting and checking positive and negative service experiences is getting very popular nowadays and many online feedback forums have emerged as a result regarding experienced services. Due to that, companies try to apply Web sites which use feedback analytics to gather data from their online users and customers. This data is gathered using feedback forms that customers access by clicking on buttons displayed on the site. Customers utilizing this feature can submit their feedback, which usually includes a feedback topic, a description and contact details. It is very important what happens with the collected data, how is analyzed and displayed in a management application in order to allow the site owner to read the feedback, get statistical reports and so on.

While this information is highly beneficial, it is very essential for companies to integrate feedback analytics data with their CRM systems. Additionally, effective analysis of online customer opinions from other popular cyber-intermediaries on the Web is needed, as it has a significant impact on building a successful

business. Consequently, a corporate integrated system is needed that could firstly analyze customers feedback from the company's website, and, secondly, manage customers opinion from alternative popular cyberintermediaries on the Web. Then, this information should automatically be fed into the CRM data warehouse.

However, even though there are some hotel Web sites which contain electronic forms for customer comments offering hotel managers the chance to respond directly, there is an absence of a management system which could enable managers to capture, record and report information quickly and easily and to use this information as a useful data source for providing higher levels of hotel service quality.

# THE PROPOSED FRAMEWORK

### Issues of concern in integration

Like all strategic changes, it requires the commitment and support of top management. Hotel managers must understand the implications of reputation system and CRM and the strategic impact of their integration. Second, they also must understand the issues of corporate strategy, human resource management, information technology, change management, leadership, team dynamics, as well as reputation mechanism and CRM.

### From the architecture point of view

From the architecture point of view, provided that it includes basic CRM system characteristics, it can be classified into operational and analytical (Berson et al. 2000; Min et al. 2002; He et al. 2004) Operational CRM refers to the automation of business processes, whereas analytical CRM mainly focuses on analyzing the data of the customer by using many tools. According to Dyche (2002), the data of the customer which has to be analyzed is stored in Data warehouse, which includes the information about the company that will provide value to the customers. This data can be collected from consumers, from internal company sources and from the third party sources. The Data warehouse plays an important role in CRM since it can analyze the customer behavior by gathering the data from different sources. Therefore, the Data warehouse should be integrated in an appropriate way and order with the company's feedback system and with others tourism cyber intermediaries to lead to right decisions about customers (Lawrence 2001). If the data gathered is not integrated properly, it damages the relationship between the company and the customer. Conceptual framework for applying an integrated customer data in a hotel CRM are depicted below.

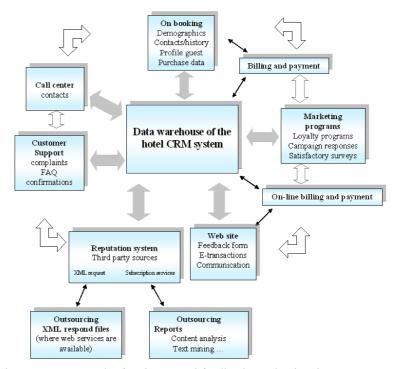


Figure 1. Framework of an integrated feedback mechanism in a CRM system

Data warehouse stores all information captured by the CRM system and software. A Customer Relationship Management (CRM) system model embeds different modules. Each of these modules works coherently to handle, store, feedback and manage all customers' accounts automatically. The system inherently automates and governs the overall customer relation operations structurally. All actions with

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the customer (calls, email, faxes, and meetings) are subject to a report. The employees fill them in real time and feed the common database.

At the beginning, names, addresses, phone numbers, e-mail addresses and contact information of customers are registered from the hotels' call center, from booking, from check-in and check-out and during their stay. This can include existing, former and potential customers that they communicate with the hotel.

Marketing Automation programs are part of CRM system/software that helps company execute marketing campaign, loyalty programs and satisfaction surveys. Usually, it uses email and SMS as the marketing channels to reach the potential prospects. This module can automatically track how many people respond to the campaign, what type of respond they give, how many people participate to loyalty programs and if the recipients who respond to the message can be classified as qualified leads.

Web site is another module and at the same time a communication channel which includes automated feedback forms, survey results, custom "report-cards", delivery & performance reports and auditable event records as a means for management of customer relation strategic decision making.

Customer Support module in CRM is purposed to make sure that all complaints, questions and feedbacks are handled properly and efficiently. Since there are always customers who complain, complain management is one of the most important tasks to maintain their loyalty (Heung and Lam, 2003; Phau and Baird, 2008).

The Reputation module provides the feedback mechanism not only with the customers relationships but with the business in general as well. The main function of the Reputation module is to integrate customer reviews, e-complaints and other valuable information from heterogeneous Web sources. To the degree that tourism organisations need to interact dynamically with partners to deliver (and to develop) customer reviews, interoperability will be critical for their ability to work efficiently with others. Interoperability is a major technical issue. Werthner and Klein (1999) defined interoperability as the provision of a well-defined and end-to-end service which is in a consistent and predictable way. This generally covers not merely technical features but also, in the case of e-environments, contractual features and a set of institutional rules. Interoperability offers a realistic alternative to standardisation, as many of the initiatives to establish global standards in tourism have failed to be widely accepted (Buhalis and Law, 2008). This is due to the lack of flexibility of the standardization process which requires every detail of the exchanged messages.

A critical component of the Reputation module, namely WS-Rep, deals with Web sites, applications, databases and data sources in general that publish their data using XML Web Services (WS) technology. As WS technology provides widely-accepted message exchange standards, an increasing number of customer reviews data is expected to be available by adopting Service-Oriented Architectures and Software-As-A-Service (SAAS) solutions. Semantic web technologies can be used for tourism IS to generate a semantic description that is interpretable by machines, and thus to facilitate the processes of WS discovery and WS composition (Maedche and Staab, 2003). Using an ontology that represents a set of concepts within a domain and the relationships between those concepts, a mediator software system effectively "translates" partner's data and allows them to communicate electronically.

A complementary component of the reputation module, namely Outsourcing Reporting, deals with outsourcing solutions that adopt content analysis procedures, popular qualitative analysis software and text mining approaches. Advanced opinion-mining techniques are developed to extract customer opinions from the unstructured (free-text) review comments automatically (Wu et al. 2010).

# CONCLUSIONS

Prior studies show those reviews have a significant impact on customers' decision-making process. This has resulted in an increasing need to strengthen the way that hotels track, analyze and exploit the information on time and use it for improving their services.

This study aimed to offer a better understanding and useful insights on hotel CRM and the need to communicate with a reputation mechanism which will provide integrated customer reviews, e-complaints and other valuable information from heterogeneous Web sources.

Customer feedback comes from a growing number of channels, including in-person, phone, comment cards, surveys, email, Web site and so on. CRM is responsible for gathering and reporting this information. The major technical issue is how a hotel CRM will get information from heterogeneous Web sources such as tripadvisor, booking etc and to obtain customer opinions from a large amount of free review text.

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Obviously, there is a need to develop a conceptual framework through a combination of literature review of CRM and reputation systems concerning hotels. Our proposed framework identifies some key modules that a hotel CRM should employs and presents alternatives on how the hotels reputation system can have access to outsourcing information. An important contribution of this research is to show how a CRM system can be effectively operated by facilitating the reputation system and customers feedback of hotels. Managers should recognize this value formula as both a strategic and tactical component of their business. Hence, they are more likely to place more weight on the reputation of service provider.

Finally, the paper has some limitations. The first one relates with the reputation system's request using XML Web Services (WS) technology. Tourism cyber-intermediaries should use XML Web Services in order to respond to our reputation system's request, as well. Alternatively, a hotel's reputation system could request subscription services from outsourcing parts. The second limitation relates to the development of suitable mechanisms to exploit well-defined ontologies in order to test the validity of the framework. Further research should be directed towards the testing and validity of the framework, a research topic the authors are currently working on.

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