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Evaluating E-Relationship Marketing Features on Hotel Mobile Apps

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EVALUATING E-RELATIONSHIP MARKETING FEATURES ON HOTEL MOBILE APPS

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2011

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of the requirements for the

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Abstract

The advent of technology has changed the course of marketing in both the academic and the business field. Given the increasing number of mobile transactions, hotel companies have launched mobile applications (apps) as an alternative e-relationship marketing (e-RM) channel. This study modified a progressive five-level e-relationship building model. The model was employed to evaluate e-RM features of the top 10 hotel companies' mobile apps. The results indicated that these hotel companies maintained e-RM feature sophistication at the lower levels (Basic and Reactive), but relatively speaking, they did not utilize e-RM features extensively at the higher levels (Accountable, Proactive and Partnership). The findings implied that hotel companies employed mobile apps as a communication channel to provide basic information and allow for transaction rather than to deliver better customer values and strengthen long-term relationships.

Part One: Introduction

Introduction

The advent of technology has influenced the course of marketing significantly (Grönroos, 1999). It has provided marketing practitioners with a few alternative distribution channels. Three billion people worldwide will have access to the internet by the end of 2014 (International Telecommunication Union, 2014). The emergence of the internet allows businesses to communicate with customers around the world at anytime with relatively low costs (Feinberg & Kadam, 2002). Therefore, more businesses are entering the market as they are now facing lower entry barriers, lower operating costs, and greater market (Novo, 2001). Further, more people now choose internet access via mobile devices. By the end of 2014, the number of mobile broadband subscriptions will reach 2.3 billion (International Telecommunication Union, 2014). In the hospitality industry, approximately 40% of leisure travelers search travel information on smartphones, and 25% of these people book trips via their smartphones (Kwon, Bae, & Blum, 2013). In answer to this trend, major hotel companies now offer free mobile applications (Leung, Lee, Fong, & Law, 2013). These apps have great marketing potentials, as they can provide more benefits and services to both businesses and customers (Lee & Mills, 2010).

The development of technology has also exerted influence on marketing strategies and practices (Grönroos, 1999). Due to technology advancement, businesses nowadays are faced with intensified competition resulted from globalization and product similarities (Achrol, 1991; Aijo, 1996). They realize that it is crucial to maintain competitive advantages through customer retention rather than customer acquisition. Therefore, more businesses have adopted relationship marketing (RM), focusing on establishing and maintaining long-term relationships with customers. The advent of the internet has led to web-based RM, also known e-RM. E-RM has

enhanced marketing as it has made it possible for companies to make one-to-one interactions, send personalized information, and thus acquire and maintain long-term customer relationships in a more effective manner.

Purpose

The purpose of this professional paper is to evaluate e-RM features of hotel mobile applications. Specifically, this study aims at developing an operational framework based on the existing literature, and applying the framework to evaluate e-RM features of mobile applications launched by the top 10 hotel companies. Lastly, the study will make recommendations to hotel management to help them better understand and utilize mobile apps.

Theoretical and Conceptual Framework

The traditional theory of marketing mix had dominated both the academic and the business world for a long time (Gummesson, 1997). This theory advocates a product-centered approach, and overlooks the importance of long-term customers and other activities involved in customer life cycles (Grönroos, 1990; Ryal, 2002). Since the end of the 20th century, more scholars and firms have recognized the customer-centered RM as an essential business strategy (Grönroos, 1994). RM aims at achieving customer retention and subsequent long-term customer relationships through one-to-one marketing (Grönroos, 1990). It will lead to reduced marketing costs and generate higher revenues (Ahmad & Butt, 2002). The hospitality industry requires frequent direct contact with customers, so hospitality firms will enjoy financial and marketing success by applying RM (Cosic & Djuric, 2010).

E-RM has been referred to as RM implemented over the internet (Bai, Hu, & Jang, 2007). The internet is an ideal channel to implement RM for a few reasons. Businesses are no longer constrained by geographical distances because abundant information is stored on the internet and

can be retrieved anywhere at anytime (Huizingh, 2000). Information can also be presented in different formats in a rapid manner (Gilbert & Powell-Parry, 2003). In addition, one-to-one marketing is made possible as the internet allows businesses to address customers individually (Sherma & Sheth, 2004). Customers are also able to reach out to firms directly through the internet. The hospitality industry will benefit greatly from e-RM in particular, because customers require immediate interaction and intensive information from the hospitality firms (Berthon, Pitt, Kastikeas, & Berthon, 1999).

Due to the popularity of smartphones and mobile apps, more customers choose the mobile channel to search information and conduct transactions. The mobile channel provides additional benefits and services of e-RM (Rasinger, Fuchs, & Höpken, 2007). To begin with, businesses can reach target customers and provide better customized services, as smartphones are usually owned by individuals (Kenteris, Gavalas, & Economou, 2009). Businesses can also offer a wider range of value-added services to enhance customer experiences, including real-time information services and location-based services (Grant & O'Donohoe, 2007; Varshney & Vetter, 2002). Smartphones and mobile apps prove to be an important part of the travel process, during which travelers wish to stay informed while they are constantly on the move (Im & Hancer, 2014).

Statement of Problem

Currently there are limited studies on mobile apps in the hospitality industry (Leung, Lee, Fong, & Law, 2013). Research suggests that mobile apps have informational and functional offerings (Adukaite, Reimann, Marchiori, & Cantoni, 2013), but no reported research has yet examined hotel mobile apps from an e-RM perspective. Additionally, what is posted on mobile apps is approximately the same information as is on the web sites. However, online customers

and mobile customers do not share exactly the same characteristics (Magrath & McCormick, 2013). The mobile access is an extension of the internet, but it still differs from the internet in many ways, such as characteristics and services. This study serves to fill this gap by evaluating e-RM features of hotel mobile apps. It aims at investigating the extent to which top hotel companies embrace e-RM with their mobile apps. Findings of the study will help management better utilize this new distribution channel.

Limitations

The study subjects of this professional paper consist of mobile applications of only 10 hotels. Therefore, the result does not necessarily apply to the whole industry. Next, the variables of this study are determined not by guests but by scholars. Some of the customers' requirements might be overlooked in this case.

Part Two: Literature Review

Introduction

The development of the mobile internet and the increasing adoption of smartphones have influenced all aspects of people's life, including the travel process (Wang, Park, & Fesenmaier, 2011). A large number of customers nowadays engage smartphones to conduct travel-related transactions (EyeforTravel, 2013). In addition, mobile apps installed on smartphones offer a better user-interface and service delivery, so many major brands including hotel firms have launched their own apps for the purpose of enhanced customer experiences (Nysveen, Pedersen, & Skard, 2015). The mobile channel is suited for travelers because they can stay connected and informed throughout their trips via smartphones (Wei & Ozok, 2005).

At the same time, there was a paradigm shift of marketing theories from the traditional marketing mix to RM (Kandampully & Duddy, 1999). As a customer-oriented marketing strategy, RM aims at developing and maintaining a lasting customer relationship in order to achieve long-term mutual benefits between all parties involved (Grönroos, 1994). The mobile channel is ideal for RM implementation because of its capability to offer relevant and personalized services and consequently enhance customer relationships (Liu & Law, 2013).

Special attention has to be paid to the mobile channel because it offers unique characteristics and benefits (Lee & Mills, 2010). Management should not consider the mobile medium as a one-to-one duplicate of the traditional media or the internet (Magrath & McCormick, 2012). However, studies on smartphone and app adoption in the hotel industry are scarce (Leung et al., 2013). This paper aims to fill this gap by conducting an evaluation of e-RM features of hotel mobile apps. Part two will provide a brief history of RM and summarize its fundamental goals, different tactics, and specific benefits. An examination of the internet will

identify its unique features and RM implications, indicating why e-RM is essential in today's hypercompetitive market. The benefits of the mobile channel will also be explored to identify the unique e-RM implications of smartphones and mobile apps.

Relationship Marketing

Relationships have been in the core of business since its existence (Gummesson, 1997). Before the industrial revolution and the subsequent mass production of goods and services, business usually involved personal services and direct contact with storeowners. For centuries, owners utilized RM in practice to establish a relationship with customers, by nurturing customers as individuals and helping to meet with their requirements, because owners aimed at retaining customers and generating repeat visits (Kandampully & Duddy, 1999; Sheth & Parvatiyar, 1995). Despite the ubiquitous and ancient practice of RM in the real world, this theory was "treated as a footnote in marketing education and general marketing management theory," because the academic world had been stuck in the narrow marketing approach of 4Ps (price, product, place, and promotion) for a long time (Gummesson, 1997, p. 271).

At the beginning of the 20th century, marketing became a distinct discipline, whose primary focus was on transaction and exchanges (Sheth & Parvatiyar, 1995). At that time, the world was at the peak of the industrialization when manufactures were facing excessive supply, resulting in a transactional orientation of marketing theory (Grönroos, 1999). The traditional marketing theory of 4Ps considers marketing as an intermediate function, where only the marketing department has an impact on consumers' view of the firm and their buying behavior (Grönroos, 1990). There are several drawbacks of this theory. To begin with, it does not discern a new customer from a long-term customer (Ryal, 2002). Both are treated in the same way as though they are equally valuable to businesses. However, new customers often demand more

information and spend less money, making them cost more to serve and consequently less profitable (Ryal, 2002). This theory also overlooks other activities involved at various stage of the customer relationship life cycle (Grönroos, 1990, 1994). This is especially true in the service industry, where constant interactions are required between customers and employees outside the traditional marketing function as defined by the 4Ps of the marketing mix. Taking a hotel as an example, departments including front desk, concierge, and housekeeping have frequent direct contact with customers. Such interactions can be deemed as one kind of marketing activities, because they influence customers' view of the hotel and thus their revisit intention and word-of-mouth (WOM). Therefore, 4Ps may apply to the post-industrial revolution age, when firms enjoyed growing production capacity and the subsequent emergence of large market share, but it is no longer sufficient and useful in today's hypercompetitive environment (Kandampully & Duddy, 1999).

There are a few other social and technological factors that promoted the development of RM. First, the advent of technology has assisted smaller firms to enter the market and offer products/services that are essentially identical in function as those of big firms. It has become difficult for big firms to maintain distinctive product/service differentiation and secure customer retention over long periods (Achrol, 1991). Second, thanks to globalization, not only small local firms but also firms from other countries have joined the market (Aijo, 1996). The two factors mentioned above have led to increasingly intensified competition across the world (Grönroos, 1999). Firms are facing reduction in customer base as well as simultaneous loss of profitability, so it has become imperative to seek alternative methods to keep a lasting relationship with customers and maintain market share (Bauer, Grether, & Leach, 2002; Sheth & Parvatiyar, 1995). However, the traditional marketing approach lacks the understanding and tools necessary

for developing and managing customer relationships (Holmlund & Kock, 1996). Third, identical products of competitors have forced businesses to achieve competitive advantages through services (Aijo, 1996; Grönroos, 2004). Satisfaction with the service is an outcome of interaction relationships between service providers and customers, but the traditional marketing mix again does not provide conceptualizations for managing such relationships (Möller & Halinen, 2002). Therefore, the strong interest in service quality has stimulated the development of RM (Berry, 1995). Fourth, traditional advertising has become less effective (Peppers & Rogers, 1995). There is a greater variety of media and consequently advertisers are no longer able to reach out to the same number of audiences through each medium. Fifth, the development of information technology has provided technical support for firms to implement RM, including tracking buying patterns, building customer databases, providing two-way interaction channels, and conducting direct marketing activities (Berry, 1995; Möller & Halinen, 2000; Sheth & Parvatiyar, 1995). Last but not least, customers have become more sophisticated and subsequently demanding (Grönroos, 1999). They want to receive individual treatment and special offerings. In light of this, a paradigm shift (Berry, 1983) from the traditional marketing mix to RM has emerged. Berry (1983) argued that in a highly competitive market, business success was dependent on customer retention through a new concept referred to as RM. This has led to a fundamental reshaping to both marketing theory and practice (Morgan & Hunt, 1994).

Grönroos (1990) stated that RM was “to establish, maintain, enhance, and commercialize customer relationships (often but not necessarily always long term relationships) so that the objectives of the parties involved were met. This is done by a mutual exchange and fulfillment of promises” (p. 5). The primary goal of RM is to foster customer loyalty and long-term engagement through an on-going process, starting from identifying potential customers to

establishing a relationship, and to maintaining and enhancing this relationship in order to generate business (Grönroos, 2004, Hennig-Thurau, Gwinner, & Gremler, 2002; Nakhleh, 2012). Scholars (Bauer et al., 2002; Payne & Holt, 2001; Tellefsen & Thomas, 2005) argued that management should lay emphasis on developing and maintaining an enduring and mutually supportive relationship with customers, as firms are more successful if an on-going customer relationship exists.

RM differs from the traditional marketing mix in that its purpose is to offer a holistic service process in which the product is only one of the tangible elements and other intangible service elements are as important (Grönroos, 2004). The traditional marketing mix is transaction/product-based (Grönroos, 1994; Sigala, 2005). It considers customers as a whole group and provides them with the same products/services. RM, on the other hand, is customer/market oriented (Grönroos, 1994). It aims to increase long-term profitability by means of effective management of relationships, and seeks to identify and understand individual customers' requests and then customizing/personalizing customer services (Sigala, 2005). In other words, RM diminishes focus on anonymous mass marketing and adds value through increased focus on one-to-one marketing (Gummesson, 1997). One-to-one marketing is more effective because it can better address specific needs of each customer (Sheth & Parvatiyar, 1995). Table 1 summarizes the basic differences between the traditional marketing mix and RM.

Table 1

Differences between traditional marketing mix and RM

Traditional marketing mix	RM
Short-term sales goals	Long-term relationship goals where sales is part of the process
Focus at sales volume	Focus at customer retention and repeat purchases
The need to reach sales goals	The need to reach mutually beneficial relationship
Anonymous customers reached out through mass communication	Individual customers reached out through one-to-one communication

Note. Adapted from “Differences between transactions marketing and relationship marketing,” by C. Cooper, and R. Shepherd, 1998, *Tourism: principles and practice* (2nd ed.), Harlow, England: Longman.

In addition to one-to-one marketing, businesses should exercise the following tactics to better implement RM. To begin with, businesses should employ pricing incentives to encourage frequent purchases (Berry & Parasuraman, 1991). Frequent purchases do not only bring increased profitability, but also closer relationships (Ward & Dagger, 2007). In addition, through personalized services, businesses are able to develop trust between employees and customers, which will further strengthen customer relationships (Berry & Parasuraman, 1991; Ward & Dagger, 2007). Besides, since it has become difficult to differentiate with competitors in terms of core products/services, extra benefits start to gain importance (Berry, 1983). For instance, businesses may offer installment, technical service, and customer-adapted invoices, so that customers will find it beneficial to engage in an on-going interaction relationship instead of a one-time transaction (Grönroos, 1994). Additionally, to maintain and strengthen such interaction and customer relationships, firms should build two-way or multi-way communication channels (Grönroos, 2004). Furthermore, a service recovery process should be set up, which not only corrects service failure but also establishes and further maintains customer relationships (Ha & Jang, 2009). Last but not least, customer relationship management (CRM) is a method that uses software and other technology for automated management of sales, marketing, and customer

services processes (Bhatia, 1999). The employment of CRM system can further ensure customer retention and loyalty (Mogharabi, Akbarabadi, Mirnezhad, & Kariznoee, 2014; Wu & Lu, 2012).

It can be beneficial to employ RM in several ways. To begin with, continuing exchanges with lasting customers require lower marketing cost per customer and produce higher net present value of customers (Ahmad & Butt, 2002). Long-term relationships enable businesses and customers over time to learn how to best interact with each other, leading to decreasing relationship costs for both parties (Hennig-Thurau et al., 2002; Szmigin & Bourne, 1998). For instance, in the U. S. credit card business, a company's profit will increase by 60% by the fifth year with a 5% increase in retention (Reichheld, 1993). Besides, RM focuses on customer retention as opposed to customer acquisition (Ryal, 2002), and it is much more expensive to attract new customers than keep existing ones (Berry, 1995; Payne & Holt, 2001). It is reported that it costs 5 times more to acquire a new customer than it does to keep an existing customer (Kandampully & Duddy, 1999). Other scholars (Berry, 1983; Reichheld & Sasser, 1990; Zeithaml, Bitner, & Gremler, 2006) highlight the strategic advantage in maintaining loyal customer base through RM. They suggest that companies with loyal and long-time customers may out-perform competitors with higher market share financially. These customers generate reduced cost, increased purchases, and free advertisement through WOM. Positive WOM can be useful to attract new customers and influence future buying decisions, because this type of personal communication is considered a more reliable source than other non-personal sources (Hennig-Thurau et al., 2002). Next, in a service failure situation, customers who have established a strong relationship with the service organizations are less likely to shift their re-patronage behavior (Ha & Jung, 2009). Xie and Heung (2012) discovered that hotel customers with a strong brand relationship were more tolerant of unpleasant experiences such as service failure.

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These customers tend to have fewer negative emotions and greater revisit intention, compared with those of weaker relationships. In addition to increased marketing productivity, customer duration, and profitability, RM also leads to increased stability and security (Gummesson, 1997). RM has a positive influence on hotel performance regarding customers, finance, and internal process, irrespective of the type and size of the property (Wu & Lu, 2012). Nevertheless, firms have to note that the benefits are achieved through a long-term relationship. Marketers should not seek primarily short-term results but profits in the long run (Grönroos, 1994).

RM is a process of mutual exchange during which objectives of parties involved are met, so customers gain benefits as well. First, loyal customers are more likely to receive faster services and price breaks (Colgate, Buchanan-Oliver, & Elmsly, 2005). Because long-term customers understand how to best interact with businesses, they need less time to seek information and are more efficient in decision-making process (Sheth & Parvatiyar, 1995). Further, since they know the products and services well, customers experience reduced anxiety and also have less potential risks with future buying decisions (Colgate et al., 2005; Sheth & Parvatiyar, 1995).

Service firms would usually be better off by applying a relationship-type strategy, for the nature of their business requires them to have immediate contact with customers on a regular basis (Cosic & Djuric, 2010; Grönroos, 1994). For a service firm, marketing consists of a collaboration of all departments. It is necessary for them to work together to create and enhance good interactive marketing performance (Grönroos, 1990). Service firms have to understand that what they have to offer is not limited to the core product (Grönroos, 1994). In a hotel setting, many processes are involved to form a holistic satisfactory guest experience. Room reservation system, loyalty program, directions to the hotel, and many other elements of bigger or smaller

magnitude are all part of its relationship with customers. Research suggests that the degree to which a hotel firm employs RM is positively associated with its financial performance including return of investment, sales growth, and market share, as well as its marketing performance including customer retention, customer satisfaction, and trust (Sin, Tse, Chan, Heung, & Yim, 2006). This study further confirms that RM plays a more important role than traditional marketing in the hotel industry.

Meanwhile, hospitality firms are facing the same problems as their peers in other industries. From the suppliers' perspective, competition is increasingly intensifying due to brand multiplication and globalization (Flambard-Ruaud, 2005). From the customers' perspective, they have more choices than before (Shirazi & Som, 2013). They also demonstrate more differentiated and demanding behavior due to an increasing shift toward hedonism and individualism in social value (Bauer et al., 2002). Therefore, it has become crucial for hospitality firms to create and maintain an enduring customer relationship through the implementation of RM (Cosic & Djuric, 2010).

The Internet and E-RM

The internet has penetrated both personal lives and the business world (Schmidt, Cantalops, & Santos, 2008). It is estimated that by the end of 2014, there will be approximately 3 billion internet users around the world, accounting for 40% of the global population (International Telecommunication Union, 2014). The internet has led to a veritable revolution in the ways in which companies conduct business, including in the hotel sector (Barnes & Cumby, 2002; El-Gohary, 2010; Grewal, Iyer, Krishnan, & Sharma, 2003; O'Connor & Frew, 2004). It has some unique characteristics that can facilitate the implementation of RM compared with other distribution channels, as discussed below.

Constant availability of abundant information. An enormous amount of information is stored on the internet and can be retrieved at any time (Feinberg & Kadam, 2002; Sheth & Sharma, 2005; Watson, Pitt, Berthon, & Zinkhan, 2002). This facilitates RM execution because information richness has a strong influence upon the establishment and development of long-term relationships (Peppard, 2000). Information richness is essential to hotel firms as well because hotels offer experience products whose quality is unknown until after the transaction (Nelson, 1974; Tian & Wang, 2014). In particular, extensive texts and photos on a hotel web site can effectively assist in customer acquisition and retention (Schmidt et al., 2008). Customers also look for 24-hour access to information and other non-time-based activities (Sharma & Sheth, 2004). Moreover, since information on the internet is in electronic format, it can be accessed in any part of the world (Gilbert & Powell-Parry, 2003; Law & Hsu, 2005).

Effective and efficient information transfer. The internet has multimedia capabilities. The information can be presented not only in the format of texts, but also via images, audio, and video (Gilbert & Powell-Parry, 2003). This allows firms to deliver high quality information in a more effective manner, leading to customer satisfaction and loyalty (DeLone & McLean, 1992). For instance, a hotel offers electronic brochures that can display three-dimensional images for customers to explore the property online. Furthermore, information on the internet can be transferred more rapidly, compared with other media (Sharma & Sheth, 2004). This characteristic is important for the hotel industry, because firms offering experience goods depend on accurate, high quality, and timely information to differentiate themselves from competitors (Nelson, 1974; Poon, 1994).

Addressability. In the age of mass production, practitioners employed mass marketing for sales promotion but their efforts were often poorly directed (Peattie & Peters, 1997). The

internet makes one-to-one marketing a reality, as firms are able to directly target and address each customer individually (Arnott & Bridgewater, 2002; Dussart, 2001). Therefore, customer communication becomes personal (Barnes & Cumby, 2002). Firms are able to communicate with customers in a more direct and intimate manner while still enjoying the scale of mass marketing, which can in turn generate customer commitment and closer relations (Bauer et al., 2002). For instance, many hotels now offer online chats services. Closeness is a leading factor in both customer acquisition and retention (Barnes, 1997).

Interactivity. The internet is a two-way communication channel (Peattie & Peters, 1997). Research suggests that communication can influence customer relationship in a positive way (Sharma & Patterson, 1999). The internet does not only allow firms to address each individual customer, but also enables customers to contact businesses and receive feedback in a more timely manner, which enhances customer service (Durkin & Howcroft, 2003; Shapiro, Romano, & Mittal, 2003). Additionally, the internet facilitates customer-to-customer interaction. For instance, customer opinions are accessible to others on business-sponsored forums and third-party review web sites, such as Yelp.com and TripAdvisor.com (Dellarocas, 2003; Dussart, 2001). It is believed that these online communities help attract and retain customers through building relationships between customers (Wang & Fesenmaier, 2004).

The above characteristics of the internet make it suited for use by businesses to promote direct relationships with customers (Bauer et al., 2002). The internet has become a powerful tool of RM, as its increasing use has brought promising opportunities for creating and maintaining customer relationships on a personal level (Berry, 2002; Brun, Durif, & Ricard, 2014; Durkin & Howcroft, 2003; Dussart, 2001; Jeong & Lambert, 2001). Scholars (Brun, et al., 2014; Shapiro et al., 2003; Sheth, 2002) believe that the internet will have a great impact on and even change the

course of RM and its future development. Internet-based RM is an extension of RM, but requires specialized management attention (Colgate et al., 2005). Moreover, the internet has profoundly altered customer expectation and behavior (Barnes & Cumby, 2002). Therefore, it is necessary to re-define and re-analyze RM in the internet context (e-RM).

Bai et al. (2007) defined e-RM as “a strategic marketing practice of establishing, maintaining, enhancing, and commercializing networked customer relationships through promise fulfillment or implemented over certain electronic channels such as the internet” (p. 35). Barnes and Cumby (2002) stated that businesses should implement an e-RM strategy grounded in the fundamentals of RM. One of the most widely used tools of e-RM is electronic customer relationship management, which is a set of activities and technologies applied to create and maintain long-term customer relationships through the internet. It is believed that e-RM can help substantially attach customers to businesses and thus have a great potential to establish personalized relationships, maintain such relationships, and increase customer retention (Bendapudi & Berry, 1997; Grewal et al., 2003; Jeong & Lambert, 2001; Lang & Colgate, 2003). E-RM provides noticeable benefits to all businesses as follows:

Ubiquity. E-RM has removed businesses from the constraints of a fixed geographical location (Huizingh, 2000). Traditional advertising media, such as newspapers, radio, and television, are usually location-specific (Sharma & Sheth, 2004). Companies are now able to directly target and reach out to customers in any part of the world through electronic channels including web pages and e-mails (Arnott & Bridgewater, 2002; Wilcox & Gurau, 2013). Furthermore, the costs of reaching customers and being reached by customers are much lower (Watson et al., 2002). This is beneficial to the hotel industry, as hotel firms must communicate

with both potential and existing customers who are remote from the property (Lukaitis & Davey, 2008).

Greater knowledge about customers. RM tracks customer purchasing patterns and service encounters, making businesses more knowledgeable about customers' specific requirements, and they are thus able to customize services (Arnott & Bridgewater, 2002; Berry, 1995). E-RM further develops this function by recording everything in electronic customer database and can thus capture higher quality data regarding customer preferences (Doherty & Lockett, 2007). For instance, Travelocity.com tracks and records user information, so it knows the user's name, airline, and hotel preferences, and what destinations he/she might be interested in (Shapiro et al., 2003). This is essential to deliver successful one-to-one marketing (Peppard, 2000). Moreover, this characteristic can facilitate service recovery, as greater customer knowledge enables firms to better resolve problems in a service failure situation (Bitner, Brown, & Meuter, 2000).

Mass customization. From a customer's point of view, the switching cost will be high once he/she starts receiving personalized offerings and subsequent superior value, and it is thus more likely for him/her to maintain loyalty (Peppers & Rogers, 1999; Sharma & Sheth, 2004). In the past, it was expensive and time consuming to build one-to-one relationships with each individual customer, so such relationships only existed in markets consisted of a small number of customers or in business-to-business situations (Arnott & Bridgewater, 2002; Shapiro et al., 2003). Nowadays e-RM has made it feasible for most businesses to address each customer, respond to his/her needs, and send tailored information including marketing offer, which is likely to generate stronger emotional content, enhanced customer relationship, and subsequently greater loyalty (Barnes & Cumby, 2002; Deighton, 1997; Durkin & Howcroft, 2003; Jeong & Lambert,

2001; Sherma & Sheth, 2004). The scope of personalized offerings ranges from messages to customers, to web pages, products, and the overall customer experience (Ching & Ellis, 2006).

Enhanced interaction. E-RM is able to effectively strengthen information distribution and increase communication flows (Barnes & Cumby, 2002; Gilbert & Powell-Parry, 2003). Communication is essential for a relationship, and it has to be two-way (Barnes & Cumby, 2002). Furthermore, customers desire interaction (Dabholkar, 1996). E-RM has provided several alternative communication channels, including e-mails, live chats, and bulletin boards, making interactive-based communications between buyers and sellers more convenient and frequent (Barnes & Cumby, 2002; Feinberg & Kadam, 2002; Lang & Colgate, 2003). Such interactions will help build emotional connections with customers (Weiss, 1999). Furthermore, if managed carefully, e-RM channels are likely to serve as a promising new arena for WOM, which can generate sales and further enhance customer loyalty (Verma, Sharma, & Sheth, 2015). It is reported that a 10% increase of online ratings can lead to 4.4% growth in hotel sales (Schmidt et al., 2008).

Decreased marketing cost. Compared with other marketing platforms, the internet is an inexpensive medium of interaction and distribution (Arnott & Bridgewater, 2002; Watson et al., 2002). For instance, the costs for building a web site can be relatively low, depending on the scope of the project (Gilbert & Powell-Parry, 2003). Besides, email transmission has no significant costs (Feinberg & Kadam, 2002). In addition, firms can take advantage of time-difference and set up customer service centers in countries of lower labor cost, further decreasing operation costs (Feinberg & Kadam, 2002). Therefore, the costs to identify, acquire, and retain customers have declined (Buttle, 1996; Watson et al., 2002). E-RM has offered a great opportunity for small and medium-sized firms as well (Quelch & Klein, 1996; Sheth, Sisodia, &

Sharma, 2000). In the past, smaller firms often partnered with other powerful channels, but such collaboration might lead to less decision autonomy and process control (Delgado-Ballester & Hernández-Espallardo, 2008). E-RM now provides them with greater competitive advantages through lower entry barriers, greater market size, as well as lower marketing and operations cost (Grewal et al., 2003; Novo, 2001). A recent study (Tian & Wang, 2014) suggested that hotels of smaller size and lesser-known brands benefited more from e-RM.

Added value for customers. E-RM provides customers with benefits as well, and failure to do so may lead to lost opportunity (Grewal et al., 2003; Shapiro et al., 2003). Tailored services and enhanced customer experience are two examples of added value (Dussart, 2001). In addition, customers have greater pricing transparency online due to the reduction of information asymmetry (Grewal et al., 2003). They also spend less time and effort in information search, product comparison, and decision-making (Shapiro et al., 2003). Moreover, their choice manifold has expanded globally, as they are able to obtain products and services from other parts of the world (Barnes & Cumby, 2002).

E-RM in the Hotel Industry

The hotel industry should lay particular emphasis on e-RM, as it is in an ideal position to employ e-RM (Law & Hsu, 2005; Palmer & McCole, 2000). Travel service is ranked the highest in terms of its potential for RM through interactive media (Kierzkowski, McQuade, Waitman, & Zeisser, 1996). Research further confirms this by suggesting that information-intensive and interaction-based service industry will benefit most from e-RM (Berthon et al., 1999; Gilbert & Powell-Parry, 2003). In order to promote performance, hotels should utilize distribution channels which can provide customers with information and facilitate their purchases (Middleton & Clarke, 2001). In addition, the hotel industry has an enormous amount of customer data

including purchase history and personal information, so that it is comparatively easy to set up a customer database and retrieve information to identify and target customers. Furthermore, competition is becoming more intense, due to the emergence of online travel agencies and other third party transaction channels (Lee, Guillet, & Law, 2013). In this era of increasingly changing purchasing behavior and greater customer mobility, it is imperative for businesses to generate continuous interaction and build a stronger long-term relationship with customers (Dussart, 2001). Aware of the opportunities and challenges, many firms now assign a greater part of marketing budget to electronic channels (Romenti, Minazzi, & Murtarelli, 2011).

Previous studies have demonstrated that the implementation of e-RM in the hotel industry has been exploited at basic levels only. Gilbert, Powell-Perry, and Widiyoso (1999) conducted interviews with five executives of top hotel groups who believed that the internet is an ideal channel for RM. In the same study, Gilbert et al. proposed a five-stage model of long-term customer retention and evaluated the corresponding features on hotel web sites. They discovered that only a small number of hotels at that time employed e-RM. A few years later, Gilbert and Powell (2003) conducted a similar research based on the same model and found that all of the hotel chains studied have exploited the internet as an e-RM tool. However, results of a survey among the key executives of UK hotel groups revealed that the hotels had little intention to embrace RM on the internet (Luck & Lancaster, 2003). A five-level e-relationship building model was applied by Bai et al. (2007) and Essawy (2007). They found that most hotels have applied e-RM strategies on their web sites, but only a small number of them have adopted an authentic relational online strategy. Gan, Tan, Sim, and Tna (2008) developed a four-level model to measure the effectiveness of hotel web sites as RM tools. Their study of Singapore hotels suggested that most hotels utilized RM for data collection rather than mass customization and

long-term relationship building. A model suited for the Italian hotel industry was developed by Romenti et al. (2011) and applied to assess the three to five star hotels in Milan. The findings suggested that Milanese hotels' online content is mainly information-oriented rather than relationship-oriented. Escobar-Rodríguez and Carvajal-Trujillo (2013) proposed a web-presence model to identify the web presence of informational and relational features of Spanish hotel web sites. The results suggested that many hotels have not yet adopted an authentic e-RM strategy.

Studies have also shown that e-RM strategies have a positive impact in the hotel context. Jang, Hu, and Bai (2006) modified a three-level progressive relationship-building model to test the correlation between hotels' e-RM feature sophistication and financial performance. The findings of their study indicated that the changes in sales revenues were positively correlated with the basic and the partnership levels but negatively with the accountable level. Tian and Wang (2014) discovered that e-RM qualities could influence customers' service expectations and subsequent purchase intentions in a positive way through the five-level progressive relationship-building model.

Mobile Technology and Applications

The 1990s is classified as the decade of the internet, and the 21st century is referred to as the decade of mobile technology (Mahatanankoon, Wen, & Lim, 2005). By the end of 2014, the number of global mobile broadband subscriptions will be 2.3 billion, which is 3 times the number of fixed broadband subscriptions (Internet Society, 2013). Mobile access to networked resources has penetrated all aspects of daily life and changed people's behavior, which makes the mobile channel ideal for conducting business, including in the hospitality industry (Han & Wong, 2012; Tiwari & Buse, 2007; Tsalgaidou, Veijalainen, & Pitoura, 2000). It is reported that

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currently the mobile channel accounts for 20% of travel transactions, and travel companies are witnessing a dramatic increase in this sector each year (EyeforTravel, 2013).

The driving force for mobile transactions is the rapid growth of smartphone adoption (ABI Research, 2010). It is reported that 65% of the US population owned a smartphone in December 2013, and more than 73% of these smartphone users either surfed mobile web pages or downloaded apps of online retailers (comScore, 2014). Compared with ordinary cell phones, smartphones have larger and higher resolution screens, stronger input capabilities, reliable internet access, and a wide array of other features, including e-mail, instant messaging, video and audio playback, a video camera, and much more (Dickinson, Ghali, Cherrett, Speed, Davies, & Norgate, 2014; Persaud & Azhar, 2012; Raento, Oulasvirta, & Eagle, 2009; Tiwari & Buse, 2007). In addition, the advancement of network technology has led to faster data transmission and greater traffic capacity, so smartphone networks are as good as landline networks (Advani & Choudbury, 2001). The development of smartphones has brought marketing practitioners great opportunities, as they can offer more services through smartphones and consequently enhance customer experience (Bauer et al., 2005; Persaud & Azhar, 2012).

Importantly, smartphones now offer access to mobile apps (Persaud & Azhar, 2012). The mobile apps, also known as the native apps, are tailor-made software for smartphones (Dickinson et al., 2014; Grøtnes, 2009). It is believed that apps create a user-friendly interface and improved customer experience, because they offer additional usability through accessing the camera and address book as well as memory on smartphones (Jacobs, 2012; Nysveen et al., 2015). There are 1.5 million apps for Android platforms on Google's Play Store, including more than 70,000 travel apps (AppBrain, 2015). 1.2 million apps are available in the Apple iTunes store, more than 54,000 of which are travel apps (Statista, 2014). In fact, travel apps are one of the 10 most

popular app categories in both stores. The advent of apps is attracting more and more well-known brands to develop their own apps, giving rise to a wider range of marketing implications (Banham, 2010; Persaud & Azhar, 2012). If managed carefully, these apps will facilitate to generate new customer relationships, develop a stronger sense of belongingness, and enhance existing loyal relationships with customers (Peng, Chen, & Wen, 2014).

Although the mobile channel is an extension of computer-based internet into the wireless arenas, firms should not simply make a one-to-one content translation from the online environment to the mobile environment (May, 2001; Venkatesh, Ramesh, & Massey, 2003; Wei & Ozok, 2005). The mobile channel has its own peculiarities, which overcomes the shortcomings of the fixed internet and brings unique services and benefits (Lee & Mills, 2010; Mahatanankoon et al., 2005; Rasinger et al., 2007; Tsalgatidou et al., 2000). These peculiar characteristics make the mobile channel an ideal medium for RM, especially in the hospitality sector (Advani & Choudbury, 2001; Dickinson et al., 2014; Kannan, Chang, & Whinston, 2001; Tiwari & Buse, 2007), as discussed below.

Individuality. Smartphones are becoming an extension of their owners' personality and individuality (Grant & O'Donohoe, 2007; Persaud & Azhar, 2012). They are one-to-one communication devices that are rarely used by people other than their owners, while computers are often shared by families (Roach, 2009). Besides, people personalize their smartphones by choosing ring tones and phone cases, and carry them within reach, so smartphones are not only intimate accessories but also an important part of daily life (Bauer et al., 2005; Hennig-Thurau et al., 2010; Raento et al., 2009). This relationship with smartphones are more likely to result in personal attachment, which in turn makes them trusted communication channels and consequently a prerequisite for generating customer relationships (Advani & Choudbury, 2001;

Bellman, Potter, Treleaven-Hassard, Robinson, & Varan, 2011). Furthermore, there is a better chance for firms to reach target customers and provide specific services via this mobile channel (Kenteris et al., 2009; Siau, Lim, & Shen, 2001). Smartphone apps allow customers to opt for products and services that are tailored to their interests and preferences, so the information is more relevant and thus marketing is more efficient (Morosan & DeFranco, 2014; Tiwari & Buse, 2007; Varshney & Vetter, 2002).

Mobility. Through the mobile channel, businesses have greater opportunities as they are able to reach customers anywhere at anytime (Bauer et al., 2005; Grant & O'Donohoe, 2007; Hennig-Thurau et al., 2010; Siau et al., 2001; Zhu & Morosan, 2014). Research suggests that mobility is a significant driving factor for the adoption of the mobile channel (Yang, 2010). Moreover, smartphones allow owners to respond immediately independent of location and activities they are engaged in (Tsalgatidou et al., 2000; Mahatanankoon et al., 2005). Therefore, smartphones facilitate impulse purchase, as customers are able to conduct transactions at the moment of intention (Tiwari & Buse, 2007). This feature of mobility is critical to the hospitality industry because travellers need to search information throughout the travel process (Gursoy & McCleary, 2004; Im & Hancer, 2014). With the assistance of smartphones, travellers can stay informed, despite not always having access to a fixed internet (Kenteris et al., 2009; Wei & Ozok, 2005). For instance, they can obtain real-time information necessary for travelling, such as weather and traffic conditions via smartphones. Moreover, last-minute travelers are more likely to search via mobile devices (EyeforTravel, 2013; Wang, Xiang, & Fesenmaier, 2014). Some apps now target last-minute travel-deal seekers by providing information about hotels that have available rooms in the next 24 hours. This will increase company revenue (Siau et al., 2001).

Location-based services. Firms can identify the location of a mobile device through the Global Positioning System (GPS) which uses satellite stations to calculate and get locations (Tsalgatidou et al., 2000). It is beneficial to know a customer's location in several ways. First, since customer activities no longer only take place when customers are plugged into the internet, information collected regarding activities and preferences are much richer and more accurate (Advani & Choudbury, 2001; Deighton & Kornfeld, 2009). Second, it is essential to know the location of customers in order to offer relevant services (Tsalgatidou et al., 2000). For instance, restaurants can send coupons to customers in close proximity and consequently increase the probability of sales (Varshney & Vetter, 2002). Cruise line companies now offer local maps and restaurant guides at every stopping-off point through location-tracking services (Advani & Choudbury, 2001). Third, customers can locate a product or service in a specific area via GPS (Varshney & Vetter, 2002). For instance, customers can search a list of hotels nearby via mobile apps, and can have the app display results based on distance (Wang & Wang, 2010). Routing services are also essential during travels (Sadoun & Al-Bayari, 2007). It is these value-added services that differentiate firms from competitors, enhance brand presence, and help to maintain long-term relationships with customers (Grönroos, 2004; Tiwari & Buse, 2007).

With the increasing number of users and greater penetration into people's life, the mobile channel appears to have substantial influence on the travel process (Starkov, 2010; Oh, Lehto, & Park, 2009; Wang et al., 2011). The hospitality industry must lay great emphasis on this channel because more customers choose to interact via the mobile channel (EyeforTravel, 2013). Hotel.com reports that their mobile apps have 15 million downloads (EyeforTravel, 2013). The increasing number of independent travelers is one of the driving forces of this trend, as more and

more travelers rely on self-service instead of packaged options (Buhalis & Law, 2008). These travelers require an intense amount of information and assistance at all stages of their trips.

The topic of smartphones' and mobile apps' usage in the hospitality industry has been investigated from a few different perspectives (Adukaite et al., 2013). Many studies explored the customers' intentions of smartphone adoption by employing different methods, including the technology acceptance model (Algethmi, 2014; Im & Hancer, 2014; Kwon et al., 2013; Morosan & DeFranco, 2014; Okumus & Bilgihan, 2014; Yang, Zhong, & Zhang, 2013), the united theory of acceptance and use of technology (Lai, 2013; No & Kim, 2014), and a qualitative method (Tussyadiah & Wang, 2014). These studies indicated that perceived usefulness, perceived ease of use, social influence, self-identity, and previous experience could all significantly influence the customers' intention in terms of smartphone adoption. Wang et al. (2014) proposed a framework of smartphone adoption to show how different factors, including contextual factors, cognitive beliefs, previous experiences, and everyday use, interacted with each other and consequently influenced smartphone adoption. Okazaki, Campo, Andreu, and Romero (2014) categorized travelers into four groups in terms of smartphone usage pattern before and after arrivals at the destinations: savvies, planners, opportunists, and low-techs. The study helped marketers to study consumer behaviors of smartphone usage and develop mobile apps based on actual needs.

Other studies focused on the supply side, using a wide range of approaches. Kennedy-Eden and Gretzel (2012) provided two guidelines for smartphone apps' categorization based on the value chain and user interactivity. Several studies analyzed the role that smartphones and mobile apps played in the hospitality industry and indicated that they were powerful tools to provide a more satisfactory travel experience, as well as a more effective communication means between customers and travel firms (Dickinson et al., 2014; Wang, Park, & Fesenmaier, 2012).

Yus (2014) proposed a model to evaluate travel apps' quality and suggested that the value of information, usability, and non-propositional qualities were three significant factors. In the airline industry, Liu and Law (2013) found that the adoption decision of airline firms were related with a firm's region, business scope, and number of flight destinations. Although there are a few studies of smartphones and mobile apps in the hospitality industry, research in the hotel context is scarce (Leung et al., 2013). In their study of mobile apps offered by European German-speaking hotels, Adukaite et al. (2013) discovered that most apps only offered informational and functional contents. Leung et al. (2013) suggested in their study of Hong Kong hotel apps that less than 40% of the hotels offered mobile apps. However, no studies have yet employed an e-RM approach. The two prior studies also have regional limitation. Therefore, this study aims to close this gap by evaluating e-RM features of hotel mobile apps.

Part Three: Research Methodology and Discussion

Introduction

Many hotel firms simply assume that the online environment and the mobile environment share the same characteristics, and thus post the same information on both channels (Magrath & McCormick, 2013). Currently there are limited studies aimed at exploring the specific features of mobile apps in the hotel context. Further, no such studies have yet approached from an e-RM perspective. Therefore, this study proposes a five-level e-relationship building model in a hotel mobile app setting and employs this model to evaluate the e-RM features of hotel mobile apps.

Summary of Literature Review

In today's hypercompetitive environment, firms are faced with intense competition and the extreme mobility of customers. It is crucial for firms to implement RM as a part of their business strategy in order to gain competitive advantages. RM can facilitate both customer

acquisition and retention, as well as maintain long-term customer relationships. Firms employing an RM strategy are usually more successful in the long run. The internet and the mobile channel are both ideal channels for e-RM. Both channels allow one-to-one marketing, greater knowledge of customers, and enhanced interactions with customers. The mobile channel can further strengthen customer relationships through value-added services, including location-based services, targeted promotion messages, and real-time information.

The hospitality firms are suited for RM implementation. To begin with, the hospitality industry is interaction-based. Employees have immediate contacts with customers on a daily basis. Globalization and brand multiplication have led to increasingly intensified competition in the industry. Customers are also becoming more demanding. They require personalized services and an intense amount of assistance throughout their trips. In addition, the hospitality industry offers experience products, so new customers do not know the product quality before they make purchase decisions. Hospitality firms should utilize RM to provide abundant information and two-way communication channels for customer inquiries.

Operational Framework

The operational framework used by this study was based on a five-level progressive relationship building model proposed by Kotler, Bowen, and Makens (2014) and a study conducted by Bai et al. (2007). This model provided the theoretical foundation for the evaluation of hotel apps' e-RM features. It suggested that there were five levels of RM, namely: basic, reactive, accountable, proactive, and partnership. However, since the model assumed that businesses communicated with customers via phone calls, modifications in the mobile environment were needed. Bai et al. (2007) developed the model in an online setting and applied it to assess the e-RM features of hotel web sites. Table 2 illustrates the details of this framework.

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Some of the e-RM features were modified to represent the unique characteristics of mobile apps. Some of them were related to location-based services, including location-based hotel search, live map, and local attractions (Advani & Choudbury, 2001; Sadoun & Al-Bayari, 2007; Varshney & Vetter, 2002). The mobility of smartphones also made it suitable for travel itinerary management and replacement of physical room keys (Im & Hancer, 2014). Room preference was another important feature that could be used to collect customer preference and increase subsequent satisfaction (Wang & Wang, 2010). Link to full web site, app rating, and app tutorial were three unique features identified from mobile apps. The feature of telephone number, fax, email, and postal address were consolidated into one feature referred to as contact information, as these were often displayed on one page on mobile apps. Since electronic bulletin board was less commonly seen, it was changed to online reviews and social media information. Further, narrative driving/transportation directions, annual report and other financial information were removed because these features were not suited for display on mobile apps due to the size of smartphone screens. Security alert, local search engines, and hotline exclusively for members were also removed, as they were not applicable to mobile apps.

The sample of the study was based on a list of the top 10 hotel chains in the world in 2014 (Vidyarathi, 2014). The hotel chains were ranked according to the number of properties and the number of rooms. Nine apps were downloaded from the U.S. Apple App Store. The other app was downloaded from the China App Store, because the hotel chain was China-based and thus did not have an app for the U.S. market. Most of the hotel chains have developed several different apps, including a comprehensive app of the hotel chain, an app for the loyalty program, apps for specific regions, and apps for specific hotel brands. Since comprehensive apps have

Table 2

Operational framework for e-RM through hotel mobile apps

Five levels of e-RM	Mobile app features
<p>Level 1: Basic</p> <p>The company attempts to sell its products by providing basic product knowledge and company information to online customers but does not follow up. This level refers to situations where the mobile app only provides necessary product/company information.</p>	<p>Company profile</p> <p>Product information</p> <p>Product preview (facilities layout or visuals)</p> <p>App tutorial</p>
<p>Level 2: Reactive</p> <p>The company is reactive of its product selling. It provides opportunities for purchasing products and encouraging customers' communications about company's products. This level includes mobile app features that allow customers to purchase products and contact the company for any product concerns.</p>	<p>Product highlights (hot deals or special promotion packages)</p> <p>Hotel search (based on current location)</p> <p>Online reservation</p> <p>Live map (display of hotel geographic locations and transportation direction)</p> <p>Local attractions</p> <p>Contact information</p> <p>Link to full web site</p>
<p>Level 3: Accountable</p> <p>The company demonstrates its responsibilities to take care of customers. It offers opportunities to allow for more customized services and solicits any product improvement suggestions and specific disappointments from the customer. This level refers to mobile app features that are meant to hold the company accountable for its business.</p>	<p>Change or cancel a reservation</p> <p>Retrieve a reservation</p> <p>Customer service pages (FAQ)</p> <p>Complaining ability (indicating how and when the complaint will be handled)</p> <p>Internet privacy policy</p> <p>Terms of use</p>
<p>Level 4: Proactive</p> <p>The company takes extra care to encourage more dialogs with customers and tries to increase chances to keep in touch with the customer for suggestions about improvements that have been made or creative suggestions for future events. This level includes mobile app features that allow the company to actively take the initiative to build deeper customer relationships.</p>	<p>Free sign up for promotion information</p> <p>Feedback</p> <p>App rating</p> <p>Live chat</p> <p>Online reviews</p> <p>Social media information</p>
<p>Level 5: partnership</p> <p>The company treats customers as partners and works continuously with customers at more personal level to discover ways to deliver better value. This level refers to mobile app features designed to build loyalty and add more values to the long-term company-customer relationship.</p>	<p>Loyalty programs</p> <p>Sign up for loyalty programs</p> <p>Differential membership structure</p> <p>Personalized account for members only</p> <p>Personal room preference</p> <p>Travel itinerary management</p> <p>Electronic room key</p>

Note. Adapted from "Examining e-relationship marketing features on hotel websites," by B. Bai, C. Hu, and S. Jang, 2007, *Journal of Travel & Tourism Marketing*, 21(2-3), p. 39. Copyright 2007 by The Haworth Press.

features for loyalty program and specific hotel brands, the study sample only included the comprehensive apps of the 10 hotel chains.

Study Sample

Data Collection

The data was collected in April, 2015. The 10 comprehensive apps were downloaded to collect information based on the proposed framework. When each feature was found on the app, the corresponding item was coded as “1” and “0” otherwise.

Statistical Analysis

This study employed descriptive analysis. In the proposed framework there were five levels of e-relationship with 30 items in total. Responses at each level were summed up and divided by the total number of items of that level. The results were presented in percentages to reflect how sophisticated at each level the e-RM features of hotel mobile apps are.

Results

This study found that hotel companies have offered more features at the lower levels on their mobile apps. They have utilized mobile apps as a distribution channel to provide company and product information at the basic level (70%) and conduct transactions at the reactive level (76%). All of the 10 hotel companies offered features of basic information including product information (100%) and product preview (100%). Hotel search, online reservation, and contact information were three features applied by all of the hotels at the reactive level. However, a closer look at these two levels revealed that hotel companies failed to provide some features including app tutorials (20%), local attractions (50%), and link to the full web site (30%).

The findings of this study also indicated that relatively speaking, the hotel companies have not exploited e-RM features extensively at the three higher levels: accountable (62%),

proactive (43%) and partnership (68%). The hotel companies did not utilize mobile apps as an effective communication channel to allow for complaint, keep in touch with customers, and build stronger customer relationships. The less utilized items included customer service page (10%), complaining ability (0%), feedback (30%), app rating (40%), live chat (10%), and online reviews (30%). In addition, although 100% of the hotel companies employed loyalty programs and different tiers to build lasting customer relationships, not every one of them has fully developed opportunities to provide personalized services to customers. The features of personal room preference (40%), travel itinerary management (10%), and electronic room key (10%) were not widely applied.

Implications

The purpose of this study is to examine the e-RM feature sophistication of hotel mobile apps. From a theoretical standpoint, the study adds to the theoretical foundation for evaluating the efforts of e-RM building. This is one of the first studies in the hotel mobile apps field, and the first one conducted from an e-RM perspective. A progressive five-level e-relationship building model is modified to assess the extent to which hotel companies embrace e-RM features on their mobile apps. The identified model applies five levels in the process of relationship building in the mobile context: basic, reactive, accountable, proactive, and partnership. The higher the level is, the more sophisticated the relationship is. At the basic level, hotel companies only post basic company and product information, while at the partnership level they seek to build a mutual beneficial and personal relationship with customers through long-term efforts. For future studies, this model can be applied to fit different business fields.

The results suggest that the top 10 hotel companies have successfully established e-RM feature sophistication on mobile apps at the lower levels. These hotel companies employ mobile

apps as a distribution channel to provide basic information, conduct transactions, and allow for further inquiries. In addition, they offer some basic value-added services including live maps and brief description to local attractions. Further, although the hotel companies fail to maintain e-RM sophistication at the higher levels, all of them have employed features related with loyalty programs. One possible explanation is that businesses understand the importance of loyalty programs and the role that they play in customer retention (Uncles, Dowling, & Hammond, 2003). The sampled hotel companies are also found to have the resources to build loyalty programs, given the large number of properties and customers that they have.

The findings of this study are consistent with Bai et al.'s (2007) research on e-RM features of hotel web sites, but the hotel companies demonstrate higher percentages of e-RM feature sophistication on mobile apps than on web sites at the higher levels. This is probably because firms nowadays begin to realize the benefits of e-RM and are assigning a larger amount of budget in online and mobile marketing (Romenti et al., 2011). Leung et al. (2013) also suggested that chain hotels were more likely to invest in mobile apps. Since all of the hotel companies in this study are chain hotels, this possibly explains why they display higher percentages of e-RM presence on their mobile apps.

However, the fact that the hotel companies have utilized fewer features at the higher levels also indicates that they have not provided enough personalized and value-added services through mobile apps. Hotel firms have to understand that they are faced with more intensified competition than in the past (Cosic & Djuric, 2010). In order to maintain competitive advantages and maintain a lasting customer relationship, they should offer more sophisticated e-RM features through mobile apps. In the past, large hotel companies had great advantages over small and medium-sized companies, as they possessed more resources to reach out to customers and build

customer relationships. Now small and medium-sized hotel companies can possibly cooperate with online travel agencies, or choose to build their own online and mobile distribution channels at relatively low costs (Grewal et al., 2003). Therefore, they also have the potential to provide the same offerings as their counterparts. Besides, customers exhibit greater mobility and higher expectations (EyeforTravel, 2013). With the development of the mobile channel, customers can easily get information of various hotel properties across the globe (Wilcox & Gurau, 2013). They also require more enhanced services other than those at the basic levels. Therefore, in order to maintain lasting customer relationships and customer loyalty, it is crucial to utilize mobile apps to deliver better values at a personal level.

In order to deliver more personalized services and better customer experience, hotel companies must offer a holistic set of services other than mere accommodation and basic hotel information (Grönroos, 2004). Customers require the assistance from a hotel not only during their stay, but also throughout the entire travel process and even before or after the trip. Hotel companies should make every effort to ensure that the whole process is as convenient as possible for customers. Before the trip, hotel companies allow customers to save the information in their loyalty program account by offering the feature of personal room preference. Thus customers do not have to choose room preference every time they make a reservation. A customer service page can help to answer frequently asked questions within seconds and therefore saves customers both time and efforts. During the travel process, the feature of travel itinerary management can facilitate customers to better arrange their trips and save all the necessary information of the entire trip on their smartphones. This feature is now feasible due to the mobility characteristic of smartphone (Im & Hancer, 2014). It will enhance trip planning and management experience. Besides, by providing an electronic room key through mobile apps, hotels can make sure that

customers are less likely to forget or lose their room keys. In fact, some hotels, including Hilton and Marriott, do not have this feature on their comprehensive apps but present it as an individual mobile app, as they are piloting the feature at selected brands and properties (Elsafe, 2013; Mearian, 2014). Last but not least, if customers have any complaints and feedback after the trip, they should be able to contact hotel companies through such features as online reviews and feedback. It is also important to have the feature of complaining ability to show the caring of customers by hotel companies and enable hotel companies to implement service recovery strategies if necessary.

Some less utilized items are features specifically modified or added in the mobile app context, including app tutorial, link to the full web site, app rating, and online reviews. This indicates that hotel companies do not understand the difference between the online environment and the mobile environment (Magrath & McCormick, 2013). In order to offer better user experience, contents on mobile apps are usually adjusted to fit the smaller screens of smartphones. Therefore, it is necessary for mobile apps to provide app tutorial to assist new customers and offer a link to the full web site in case customers want to explore other online features. Further, e-word-of-mouth is known as an effective means of promotion among customers, since they believe that the opinions of their peers are more trustworthy than information provided by businesses (Verma et al., 2015). Positive online reviews and app ratings are likely to enhance hotel image, facilitate the customer decision process, and promote hotel sales. Thus hotel companies should also provide related features that can serve as an alternative channel of promotion.

Limitations and Future Research

This study is not free from limitations. First, the generalizability of this study's findings may be questioned. The sample included only the top 10 hotel chains, and only the comprehensive apps of these hotel chains were selected. The apps from other smartphone platforms were not included as well. A natural extension of this study is to investigate a larger sample, including more hotel groups, comparison between comprehensive apps and other specific apps, as well as more mobile apps from other platforms. Analysis of variance and regression model can also be employed to test the relationship between e-RM sophistication of mobile apps and hotel characteristics. In addition, the e-relationship building model applied in this study was proposed based on prior studies and findings from the literature. The validity may be limited without further research from a customers' perspective. It is therefore necessary to investigate consumer expectations of e-RM features on hotel mobile apps and modify the current model based on the findings. Finally, it will be interesting to analyze the correlation between hotels' e-RM features on mobile apps and their financial performance.

Conclusion

Smartphones and mobile apps are an important part of people's daily lives rather than just intimate accessories. Consequently they play a significant role in marketing, as they not only promote the brand but also engage with customers to develop a long-term relationship in a more effective and efficient manner. The purpose of this study is to assess the current e-RM sophistication level of hotel mobile apps. This study aims to build a theoretical foundation for future studies of e-RM in the mobile context. It also seeks to assist practitioners to better understand how to utilize mobile apps for customer relationship building. A five-level progressive e-relationship building model is proposed for this purpose. This is the first study in the mobile app field conducted from an e-RM standpoint. Results of the study indicate that hotel

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companies offer more features at the lower levels. They utilize mobile apps to provide customers with basic information and allow for transactions. However, they have not fully exploited this new distribution channel to keep in touch with customers, deliver personalized services, and consequently strengthen customer relationships. Due to the intensified competition in the hotel industry, it is imperative for hotel companies to invest more in this new platform to offer more value-added services to enhance customer satisfaction and maintain customer loyalty.

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