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# Smartphone's Application Adoption Benefits Using Mobile Hotel Reservation System (MHRS) among 3 to 5-star City hotels in Malaysia

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## Abstract

The explosion of technology in hotel industry has promoted the appearance of adoption of Smartphone's Application as part of hotels new marketing strategy. Hotels annually spend a huge portion of investment on maintaining this Smartphone's application benefits to their guests but the application is still questionable, probably due to the application is still new in Malaysia. Thus, the benefits of Smartphone's Application should be carefully designed by hoteliers in acquiring new as well as existing guests to their hotel. This study draws on in-depth interviews of 12 hotel executives from either Marketing or Information Technology (IT) department to investigate the benefit structures of this Smartphone's application of each hotel. It aims to compare and analyze the taxonomical benefits of the Smartphone's application offered by six (6) hotels ranging from 3 to 5 star city hotels in Malaysia. The recorded tapes and transcripts derived from the interviews were repeatedly reviewed, coded and summarized into categories.

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*Keywords:* Malaysian 3-5 star city hotels; hotel executives; Smartphone's Application; benefits

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## 1. Introduction

21<sup>st</sup> century had witnessed the booming of mobile phone industry with giant mobile telecommunication companies such as Nokia, Sony Erickson, Samsung, Motorola and etc offering current technology of mobile telecommunication. Mobile communications and wireless networks are ushering in a new era (Song, 2012). Globally, there were approximately 302.6 million Smartphone purchased in 2010 (Cortimiglia, Ghezzi & Renga, 2011). Hospitality industry has taken opportunities by launching Mobile Hotel Reservation (MHR) Services that enable customers to access their favorable hotels with only a single click of a button (Wang & Wang 2010).

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MHR benefited a lot from the development and growth of Internet. Internet bring opportunities for hoteliers to promote and sell their products at reduced cost and real-time information in order to stay competitive (Connolly,Olsen & Moore 1998: Kim, Ma & Kim 2006: Pernsteiner & Rausedo,2000).

Hospitality and tourism industry on the other hand is considered the largest and fastest growing industry in the world (Walker,2007). Hotel businesses operates 365 days in a year, 7 days a week and 24 hours a day with no exception of public holidays or off days. Their prime businesses are providing accommodations to travelers. People travel all over the world for many reasons, thus room reservations are in needs to customers. Grabbing the opportunity of world fast growing mobile penetration rates (Wong & Hiew, 2005), Mobile Hotel Reservation Adoption can be seen as new and attractive promotional tools in upgrading hotels image and reputation.

Recently, the technology of mobile hotel reservation adoption has become prevalent among luxury city hotels in Malaysia. A search for 3-5 star Malaysian hotels that adopt mobile hotel application through the search engine Yahoo (<http://www.yahoo.com>, accessed in October, 2012) produced a list of 27 hotels all over the country. The continuous and marked change for tourism and hospitality environment over the past decade, stable economy as well as large foreign investors to set up operations in Malaysia had contributed to the stiff competition among hotels in capturing customers. Evidently, the mobile market in Malaysia scenario can be seen very positive and competitive (Wong & Hiew, 2005). The mobile hotel reservation adoption indirectly gives a significant impact on today's worldwide hotel industry. Hospitality and tourism managers have been and will continue enhancing their competitive advantages by focusing their resources on the virtual business environment to capture the lucrative online business (Bai, Law & Wen, 2008). It is essential to provide well-perceived service quality, satisfy their customers and build loyalty for long-term customer value in the virtual environment (Bai *et al*, 2008). According to Gilbert and Wong (2003) Information Communication Technology (ICT) is crucial to anticipate and meet customers' expectation and it act as a prerequisite factor in providing satisfactory services. Furthermore, Singelee and Preneel (2003) emphasized that the information highway is highly accessible with mobile phones usage or PDA due to the development of new technology such as WAP or Wireless Application Protocol.

### *1.1. Research Objectives*

However, at present, there is none empirical study that has been conducted on benefits of mobile hotel reservation adoption application comprehensively in Malaysian hotel scenario. This study was adapted from Shanshan, Wilco & Eric (2011) study utilizing different settings and aspect. Hence, this study is worth to carry out in line with the insights that researcher hope to offer for hoteliers. Specifically, the research was carried out to explore mobile hotel benefits structures. The taxonomical benefits offered by six (6) luxury hotels mobile reservation adoption were compared and analyzed.

## **2. Literature Review**

### *1.2. Mobile Hotel Reservation*

Basically, internet acts as one of the reservation avenue for customers to reserve a room. Potential customers can access all sorts of hotel-related information searches through internet. Recently, hoteliers have started turning to Mobile Hotel Reservation in order to stay competitive and increase hotel's revenues with the rapid growth of wireless Internet, global navigation satellite system (GNSS) and global positioning system (GPS) as well as great demand of mobile phones/devices (Wang *et al*,2010). Mobile Hotel Reservation system can be defined as a location based online distribution information system that enables customers worldwide to reserve hotel rooms anytime, anywhere through the use of wireless Internet, global navigation satellite system (GNSS), geographic information system (GIS), global positioning system (GPS) and mobile phones/devices such as iPhone, Blackberry and etc. (Wang *et al*,2010). A report from Travel Distribution Report, 2007 stated that the differences between Mobile Hotel Reservation and Online Hotel Reservation are the specific applications in relation to mobility and accessibility as well as competence of anticipating customers' demands. With this new technology, customers of 27 hotels that adopted MHR can install the hotel reservation application through their mobile phones/devices.

According to Elliott and Phillips (2004), WAP or Wireless Application Protocol enables Internet pages and mark-up languages such as WML be viewed in a small screen of mobile devices such as mobile phones. WAP can

also be defined as worldwide standard for the delivery and presentation of wireless information to mobile phones and other wireless devices (Mallick,2003). Taluckder (2006) stressed that WAP was designed to enable the user to access information and knowledge from Internet via mobile phones in a small display and limited keys on the keypad. WAP devices have varieties of interfaces and the output can be displayed as text, formatted text and graphics while input is provided by touch screens or buttons (Frick, 1999).

A well-establish Mobile Hotel Reservation Adoption can lead to customer's loyalty especially if the benefits are carefully design by the hoteliers. In Shangri-la Hotels & Resorts press release, Michael Leong as the Director of Corporate e-business highlighted that, "Mobile devices are increasingly used by travelers to get connected to the Internet on the road. We recognize the inherent usability issues with today's smartphones and addressed them with the latest mobile technology to offer one of the most user-friendly mobile web browsing experiences in the travel industry" ([www.shangri-la.com](http://www.shangri-la.com), accessed in January 2012).

### 3. Methodology

In-depth interviews of 12 hotel executives from either Marketing or Information Technology (IT) department were performed to explore mobile hotel's benefit structures. A total of six (6) Mobile Hotel Reservation Adoption Application in Malaysian luxury hotels were studied, including InterContinental, Sheraton Imperial, Marriott, Pullman, Mandarin Oriental and Hotel A. In order to respect the anonymity policy of one hotel brand, the term 'Hotel A' will be used throughout this paper. Hotel A however has no reservation on sharing information about their technology adoption. The characteristics of all samples are as follows; located in Klang Valley area, 5-star hotels and listed among the 27 luxury hotels registered with Malaysian Association of Hotels that adopted MHR Application (MAH, 2012). A search from MAH member listing ([www.hotels.org.my](http://www.hotels.org.my), accessed in October 2012) shows that 14 out of 27, 3 to 5-star hotels have adopted Mobile Hotel Reservation Application and were located in Klang Valley area. In order to solicit hotels participation in this study, all respondents were approached through e-mail and phone calls. Interview appointments were arranged for those who replied the invitation and agreed to participate in this study. After the invitation process took place, eight hotels turned down the offer due to their high occupancy and engagement with big events at their hotels. Only six (6) out of 14 hotels agreed to participate in this study.

In-depth interview were chose for this study as it offers 'rich' and 'complete' data from interviewees (Easter-Smith, Thorpe & Lowe, 2002). Participants selected for the interview were determined through purposive sampling. Marketing or Information Technology (IT) department hotel executives (holding at least supervisory position or above) were selected due to they are the person in charge of handling Mobile Hotel Reservation Adoption Application procedures. Even though Front Office Department handle all inquiries pertaining hotels reservation but Marketing or IT personnel have in-depth knowledge associated with the mechanism and administrative logistics to MHR applications. All hotel executives were holding at least supervisory position or above. Out of 12 interviewees, 55% were female and 45% were male. Table 1 below lists the detailed profile of the interviewees.

Table 1. Interviewees profile

Position	Number
Information Technology Supervisor	4
Marketing Manager	3
Marketing Assistant Manager	3
Marketing Executive	2

Each interview conducted took about an hour. A set of questions were reviewed and used as a guideline for discussion during the interview. The interview session were recorded, transcribed verbatim and summarized. Themes, categories and concepts were then identified through transcripts derived from the interviews that were heavily reviewed, coded and analyzed. Studies conducted in qualitative research literatures suggested that interview process should be 'audio-recorded if permitted, transcribed verbatim and analyzed in an iterative manner' (Fern, 2001; Jennings, 2001).

**4. Findings and Discussion**

After the in-depth interview process took place, the taxonomical benefits of Mobile Hotel Reservation Adoption Application were developed. Table 2 below provides the taxonomy of MHR Adoption benefits among six (6) luxury hotels in Malaysia. This study has managed to determine the core benefits (same benefits offered by all hotels); partially common benefits (part of benefits that are same among hotels studied) and individual benefits (the unique benefit provided by the hotels).

Table 2. The Taxonomy of Mobile Hotel Reservation Adoption Application Benefits

Core Benefits	Partially Common Benefits	Individual/Unique Benefits
1. Convenient access	5. Available in English	10. Available in English, Chinese and Japanese
2. Reserve, modify or cancel a booking with real-time reservations	6. Enhanced photography presentation with high resolution images	11. Interactive maps
3. Designed specifically for popular Smartphones such as Apple iPhone, BlackBerry, Android and Nokia NSeries	7. Customer Support Centre	12. Online Customer Support Centre
4. Simple navigation system for easier and faster hotel searches	8. Can make reservations for rooms, dining as well as spa	13. Online forum- tips & recommendations can be shared
	9. Comprehensive Property Details	14. Kitchen Cookbook and Concierge Insider
		15. Crossover Rewards with Airlines Program
		16. Marriott Gift Shop 10% disc.
		17. Tempting offers
		18. Optimized for iPads
		19. Features ‘Read me Later’ function
		20. ‘Cities by MO’

Table 3: Hotels with summarized benefits

Hotels	Core benefits	Partially common benefits	Individual benefits
Hotel A	Sharing all benefits (Items no 1-4)	5-7, 9	Items no 10-13
Inter continental		5-7	14
Sheraton Imperial		5-8	15
Marriott		5-8	16
Pullman		5, 6, 8	17
Mandarin Oriental		5, 6, 8, 9	18-20

Table 3 above lists the summarized benefits for all hotels studied. For this study, researcher has managed to identify four (4) items (no. 1-4) for core benefits. All interviewed hotels provide guests the convenient access anytime and anywhere from their Smartphone devices. This application allows guests to reserve, modify or cancel a room reservation with real-time availability. For instance, if the guest login to their mobile Apps and cancel their booking, it will reflect immediately at the hotels side. Guest doesn’t have to call hotel to confirm the cancellation. On top of that, this Mobile Hotel Reservation Adoption Application is designed specifically for popular Smartphone such as Apple iPhone, BlackBerry, Android and NSeries Smartphone screens. Furthermore, it includes a simple navigation system for easier and faster hotel searches and bookings.

While for partially common benefits, five (5) items were identified (no. 5-9). It was observed that most hotels used English as a medium of interaction for their Mobile Applications. It is probably due to English as international language and capturing international as well as local markets. Four out of the six mobile hotel applications offer an enhanced photography presentation with high resolution images on the overview of each hotels and resorts. In

conjunction with that, two hotels provide Customer Support Centre. All issues pertaining to the Mobile Hotel Reservation Application such as inquiries on promotional dates for room reservations and hotel facilities will be entertained by the support staffs. Additionally, findings indicate that four hotels offer reservations for spa and dining too. It is interesting to find out that the reservations are not limited to hotels room only. Uniquely, two hotels extend their benefits to comprehensive property details. Guests can virtually conducted a tour to Mandarin Oriental and Hotel A all over the world with details on room offerings, services and amenities, equipped with extensive image galleries.

Lastly for individual benefits, this study has managed to determine 11 items (no. 10-20). The benefits are offered by only specific hotels, thus it provide uniqueness of Mobile Hotel Reservation Adoption Application over the others. Hotel A has managed to provide four (4) items differently in an effort to create uniqueness, such as available in more than one language, provide interactive maps for all their hotels and resorts, offer Online Customer Support Centre and Online Forum. Available in Chinese and Japanese, Hotel A is the first in the industry that provide multilingual user-friendly mobile website. In addition, they have Online Customer Support Centre that enables guests to chat, interact and send a message to the hotel. All inquiries will be replied immediately by hotel representatives. Advancement of technology is also utilized by Hotel A through the establishment of an online forum, which encourages guests to share tips and recommendations based on their past experiences staying at the hotel. Uniquely, all stories can be done via mobile. As for Inter Continental Hotel, it provides Kitchen Cookbook and Concierge Insider. Guests can have the recipes of the hotel famous menu. Sheraton Imperial provides Crossover Rewards with Airlines Program. Marriott offers a 10% disc at their Marriott Gift Shop. Pullman provides 'tempting offers' giving all their best rates and latest special offers from all around the world. This study also found that Mandarin Oriental provided three (3) unique features namely; optimized for iPads, features 'Read Me Later' function that allows guest to switch back and forth between the mobile device and desktop and lastly 'Cities by MO'. This is the highlight in the application due to the tab features a wide-ranging destination guide from area attractions, restaurants, shopping and nightlife sections. Guests can search for a specific point-to-point GPS functionality.

This study summarized that each hotels are at their very best offering unique benefits in an attempt to differentiate themselves from their competitors even though they shared four (4) same core benefits. For example, considering the power of social media and online surfing nowadays, the online forum approach by Hotel A and 'Cities by MO' by Mandarin Oriental Hotel seems to be taken very well by customers. However, this benefit may not remain unique forever, as the benefits of this technology application are easy to copy. More efforts need to be exerted in discovering ways to stay unique and different from competitors (Shanshan *et al*, 2011).

## 5. Conclusion and Future Research

Researcher hopes that with this study, it will assist hotel owners and managers in understanding the effects of having Mobile Hotel Reservation Adoption as part of their marketing strategy in attracting customers. Customers/guests on the other hand will not have to stay put to access the Internet through terminals such as personal computers or even notebook in order to liaise with hotels in making room reservations specifically. The mobile hotel reservation adoption is reliable in terms of speedily, stability and usability. It is indeed a new dimension of information gathering especially in tourism field. It will bring the tourism sector up to another level of development with the integration of WAP technology (Malee,2009). With Mobile Hotel Reservation Adoption Application, guests are free to browse all information pertaining to the hotel and are not bound to solely making room reservations.

In line with Malaysia's government effort in supporting the Information Technology (IT) adoption, this study is hoped to enhance Malaysia's image and reputation on tourism industries utilizing current technology. By evolving the Internet adoption correctly from having e-mail, to website, matching the website and domain names and currently the introduction of Mobile Hotel Reservations adoption, hotels indeed can create an effective online strategy for their customers. Furthermore, the increasing number of mobile user population all over the world does contribute to the enhancement of mobile hotel reservation adoption. On the other hand, once hotels had adopted this technology, they need to consider issues on lowering prices, improved security, improved devices and effective customer support as it proved to be the critical success factors towards mobile consumer adoption in Europe (Vrechopoulos, 2001).

This study contributes to the Mobile Hotel Reservations (MHR) literature from the perspective of management or hotels employee. Future research could explore the drivers and barriers that hoteliers face in adopting this new technology at their hotel. Additionally, perspective of the customers on using this MHR adoption would also be an interesting area to investigate. Lastly, future research may also focus on the lower scale hotels operations to give a different impact and scenarios.

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