



A Study on Utilization of Information System Sophistication in Small Sized Hotels in Kedah, Malaysia

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ABSTRACT

This paper attempted to investigate the utilization of information system (IS) among small sized hotels which prior on illustrating the main problems that faced by these hotels, as integrate and utilize some IS features to keep the hotel move profitable. The study found that small hotels in Kedah, though quite late in technology adoption, as well as IS usage in their daily operation. In fact, utilization of IS in Small Sized Hotels obtain an easy way to access the enquire information about the strategy of the small hotels which important to decision making strategy process. Finally, this research suggested to the small hotels to enhance their IS capabilities of in future. Possible implications were raised regarding IS strategies where it was important to enhance the IS capacity of small hotels in Malaysia.

Keywords: Information system utilization, small sized hotels, Kedah, Malaysia.

1. INTRODUCTION

The information technology will drive the major changes in businesses marketplace in the coming years. This is because of the emerging of latest information systems (IS) and application that are available in market and for that reason, more and more companies relying on information technology to achieve success and keep track on the market trend. Due to the latest change in IS, there are some constrains in adapting new information systems such as culture, structure and hierarchy, policy and procedure, politics and power, and work styles. Obviously, the changes in technology are deflected, absorbed, and defeated by organizational routine task and common arrangements, structures of management, and people's views and perceptions. In detail, opportunities are to change the technology life cycle, task of works, structure of management, and people's perceptions simultaneously where some discussion on it has found in Alpar and Ein-Dor (1991), Ayres (1999), Amoako-Gyampah and Salam (2004),

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Kroeber (2005) and Laudon and Laudon (2010). Thus, most of expertise had advised that it is not too smart to implement the new system quickly to firms, and then refreezing or institutionalizing the change as cited by Senn (2004), Osterhout, Waarts and Hillegersberg (2006), and O'Brian (2008). Therefore, the manager must understand about the challenges regarding IS implementation in the firms.

Generally, the major types of information systems support headquarters operation, mostly refers to the top of the hierarchical structure, divisions, departments, and specific teams in organization (Stir & Raymond, 2007; Turban, Aronson & Liang, 2006; and Turban, McLean & Wetherbe, 2009). The common examples are transactional information system, office automation system, decision support system, management information system, and transaction processing system. Moreover, other systems are enterprise-wide, inter-organizational, and global or international based information system where as implemented widely in firms, both local and international firms. Specifically, such systems can be in stand-alone or be inter-connected based, each other's in differs location, time and market. In the case of hotel sector, Abdul Manaf (2008) explain the new integration of those IS that could appear in the large and small hotels, with the additional business applications and other components, the epitome integration provides a powerful for the management to control ad support the single and multi-property for the other hospitality fields.

In general building an extensive and effective information system appropriate to the size and type of hotel operations is needed especially for hotels as coined by Barwise, Elberse and Hammond (2002). It will help hotels industry build not only automated and prompt management operations but also a customer loyalty program and an extensive distribution channel to increase sales as well as reducing cost. It will also possible for hotels to enhance their service quality by employing the hotel information system (HIS) in managing servers and other operations for serving guests. Its high-priced software that just afford to large hotels, however, seems to have kept management from purchasing the HIS tool, even though information technology has been widespread for a decade in hotel industry. Therefore, an association or cooperative work among hotels pursuing the same goal of establishing rather cost-effective information system suitable for small scale hotel is vital to create an efficient HIS module for small scale hotels.

2. LITERATURE REVIEW

Basically, the IS has been used widely by prestigious hotel with some function and sophistication. This is had been discussed in some works such as Ip, Leung, and Law (2011); Laudon and Laudon (2010); Law, Leung, and Buhalis (2009); Nyheim, McFadden, and Connolly (2005), and many more. Recently, a study by Leung and Law (2012) regarding an evaluation of Hotel Information

Technologies and Adoption in Hong Kong shows that that most hotels have not installed decision support or strategic management tools. In addition, the ratio of IS implementation between hotel systems and web applications is relatively low. The rate of adoption of automated credit card authorization, which can enhance the security of customer data, is only 6 percent for the property management system (PMS) and 17 percent for point of sale (POS) applications. In keeping with the increased importance of hotel IT systems, the background of hotel IT managers has changed dramatically in the past decade.

Theoretically, IS is inseparable from business operations, customer services, cost control, and strategic planning as mention by Laudon and Laudon (2010); Law, Leung, and Buhalis (2009); and Nyheim, McFadden, and Connolly (2005) where it is a must platform for the hotel to achieved their strategic goal. Abdul Manaf (2008) explain that IS is one of vital tools for the hospitality industry, and its role has changed from supporting daily operations to assisting strategic decision making by the top managers. In addition, IS plays important role in marketing as mention Ip, Leung, and Law (2011), data exchange (Chwelos, Benbasat, & Dexter, 2001), as well as room reservations (Ip, Leung, and Law, 2011). Most of knowledge-based organization believes that information systems are the foundation of new knowledge-based products and services in knowledge economies era (Henry, 2000 & Hogg, 2002). Information systems also make it possible for businesses to adopt more flexible arrangements of employees and management that can coordinate with other organizations across great location and geographical barriers, as well as practicing by international firms. Therefore, every business organizations are trying to become more competitive and efficient by transforming themselves into digital firms where nearly all core business processes and relationships with customers, suppliers, and employees are digitally enabled.

Nowadays, information systems have become essential for helping firms deal with changes in global challenges of business enterprise. Information systems provide firms with application and tools for communication and analytic, as well as for conducting transaction and managing businesses on a global scale (Abdul Manaf, 2005; & Laudon & Laudon, 2010). As evident, with an increasing number of users searching for and reserving accommodation online hotel managers have begun to invest large amounts of staff time in handling room allotments and reservation data received from travel websites, as noted by (Australian Government, 2011). According to U.S. Travel Association (2009), apart from chain hotels whose central reservation systems (CRSs) are connected to popular travel websites, most hotels' property management systems (PMSs) are still not interconnected with these online channels. Instant confirmation of online bookings from hotel websites strongly hints at the need for an interface across various applications. The simples' reason is information systems must be designed to provide a match between the needs of every organizational entities and the support provided by information system Wixom and Watson (2001) as

similar to Hogg (2002) and Turban, McLean and Wetherbe (2009). Consequently, that is why information systems should be classified according to organizational structure.

The simple reason is information systems must be designed to provide a match between the needs of every organizational entities and the support provided by information system Wixom and Watson (2001) as similar to Hogg (2002) and Turban, McLean and Wetherbe (2009). In fact, some studies that have examined the relationship between IT and hotel management have confirmed the value of IT. Kim and Ham (2006) found that all core front-office IT applications significantly improved service quality in upscale hotels. In similar way, Chathoth (2007) showed the value of implementing IT for full-service hotels to improve service and increase employee morale. In addition, Abdul Manaf (2008) gives an examples of support system that should be considered by managers are includes:

- **Human Resources Information System (HRIS):** Support the activities within a specific functional area of human resource department. The best examples are Personnel Training System, Annual Evaluation System, Personnel Information System, and Compensation Information System.
- **Expert System:** Mimic human expert in a particular area of business. So, this system provides answers, solutions or special advice to support management activity (routine and non-routine). Simple application is Automated System for analyzing Bank Loan Applications, Business Simulation, Marketing Intelligent System, and Sales Force Automation System.
- **Customer Relationship Management System (CRM System):** Purposely designed for customer based problems solving. CRM support interaction between the sales persons and managers and its customers. For examples, Siebel's Suite (e-Business software products) has introduced Siebel Sales Package to organization to helps them on how to deal with the worldwide needs and expectations of the customers.

Instead of main category and others information system that available in organization, in fact, information systems are functionally serving each of the major functional areas of a business (Kroenka, 2008; Turban, *et. al.*, 2009; and Laudon & Laudon, 2010). O'Connor's (2008) interviews with European Chief Information Officers (CIOs) found that the industry was half a generation behind other industries, despite rapid IS adoption. Looking at this record, the hotels are generally conservative about implementing IS. Two studies of IS in Hong Kong (Law and Jogaratnam, 2005) concluded that Hong Kong hotels tend to have low levels of new technology adoption. Beside this points of view, IS would be place, accordingly to the common function of department, as well marketing, accounting, manufacturing, human resources, and many more. In the other word, in every functional of organization, they have specific requirements and design of

information system. In every department, the information systems are developing to support the activities and process related to the department function and objective. The details of IS applications in each department of organization are:

- **Department of Sales and Marketing**

Sales and marketing information systems help the firm to identify and track customers and potential customers for the organization's products and services. In practice, the firm will develop customer database that contain the data and information about their customers. Overall, these systems help the firm to develop, promote, sell, and provide ongoing customer support for the firm's products and services and to ensure the sale activity maintain the daily, weekly, and monthly performance. Specific sales and marketing information systems include customer order processing, pricing analysis, and sales trend forecasting.

- **Department of Manufacturing and Production**

Actually, manufacturing and production information systems provide information for production planning, product development, production or service scheduling, quality management, material handling, and controlling the flow of products and services within the organization. We know that operation and manufacturing are the core activity of business, and mostly, the performances of production are depending on this department. Sometime, this department called as "a machine or generator" for transforming the raw materials into valuable products and services to end customers. Specific manufacturing and production information systems include machine control system, raw material planning, production capacity planning, material resources planning, quality assurance planning, and facilities location determination.

- **Department of Finance and Accounting**

Information systems that related to Finance and Accounting purpose are well design and develop for today's business performance. That is why the samples of Financial Information Systems and Accounting Information Systems are always available in the market. Basically, these systems track the organizations financial assets and fund flows. In addition, Financial and Accounting systems include accounts receivable, budgeting, and profit planning. In practices, these two systems should have inter-network with others information resources such as marketing, procurement, production, and so on because the costs related to the organization activities should accounted into the firm operation costing and annually budget principles.

• Department of Human Resources

Human resources information systems was develop to manage human resources activities, events and long term strategic planning of staffs in organization. Basically, human resources information system has tools and capability to maintain the human performances and behaviour by maintaining employee work records and enhancing employee skills. By this way, the firm will have the chance to evaluate the job performance either monthly or annually. Information systems for human resources purposes also can supply lots of related training, learning, and practical experience especially to new employee and at the narrow down the skills and knowledge gaps between experience staffs and newest staffs in organization. In some organization, human resources information system functionally supports the short and long term planning for employee compensation, including pensions and benefits, legal and regulatory requirements, and career development. Sometime, this system includes training and development schedules, monthly compensation analysis, and human resources planning for the advance.

Commonly, hotels are commercial organizations that take place in the market, so using manual system may lead to errors, because people forgot, and their thinking is limited, so this study believed that using a computerized system is more efficient, especially when the hotel want to get better position in the information age. Contrary to the common perception that the hotel industry does not use IS, IS systems are used throughout hotels. In fact, Fuchs, Witting, and Höpken (2009) list eleven applications that are typically employed in hotels. These include PMSs, costing and accounting systems, enterprise resource planning, yield management, human resources management (HRM), electronic customer relationship management, intranet, email marketing, websites with booking functionality, e-procurement, and online plat-forms. Besides that, Siguaw, Enz, and Namasivayam (2000) noticed that the core applications installed in most major hotels are PMS and cost and accounting systems, which handle front-and back-office operations. The reason that hotels install IS systems is to improve operations, although the record is mixed. In part, this has been a situation of IS catching up with operations. Shortly, researchers suggested that the functionality of existing back-office systems did not provide enough in the way of management tools to enhance managers' strategic planning and marketing decisions.

In sum, every hotel has unique own approach on how to settle the problem related to IS. Basically, the array of information systems available to businesses can help hotel managers to achieve higher levels of productivity and financial worth, both short and long term operation. In the case of small hotel, management challenges include the pressure between designing systems that both serve specific interests in the hotel but that also can be integrated to provide vary organization-wide information, the requirements for management and

employee training to use systems properly. Maybe, some of hotel has introduces the IS purposely for establish organization-wide information needs, employee and management training programs, and for accounting for the costs of information systems and managing demand for them. But, it is just one of the solutions and for others organizations it could be not suitable where may not applicable to the small size hotel because of the organizational factors such as motivations, ethics, cultures, leadership styles, and structure of works are differs. Overall, Table 1 illustrated the main concepts of systems; objective and application of IS in the real organization include Small Sized Hotel in Malaysia.

Table 1: Main Component of Information Systems Classification

Type of System	Objective of System	System Application in
Transaction Processing System (TPS)	Process routine business event data (daily operation data) at the operational level of the organization.	Grocery Store Checkout, Cash Register and Bank Customer Services Counter.
Office Automation System (OAS)	Always refers as Personal Productivity Software. OAS design to support a wide range of pre-defined, day-to-day work activities (individuals and small groups) and have a small database for managing routine task related to daily operation.	Microsoft Office package such as MS Word Processor, MS Excel, MS Access, MS Power Point, MS FrontPage, MS Outlook, MS Publisher, MS InfoPath, and MS Tools.
Management Information System (MIS)	Extract data form TPS and then converted it into valuable information to manager. So, MIS produce detailed information and analyses of data to help manage an organization as we as firm objective. MIS located at middle level of organization hierarchy.	Inventory Management System, Manager Planning System, Quality Information System, and so on.
Decision Support System (DSS)	Always located middle level of organization hierarchy. DSS provide analysis tools, technique, and decision support data to help the manager performance the process of decision making. At the same time, manager has right to access the organization databases in order to support quantitative decision making and execution.	Decision Analyses Software, Lumina, GDSS based software, DSS online based systems, and so on.
Knowledge Worker System (KWS)	Knowledge workers system ordinary used by knowledge worker level to find information, interpret information, and	Internet-based search engines and data mining tools; intelligent support

analyze information. This is really important to meet the latest requirement of knowledge workers on information technology. systems to apply expert judgment; and various decision support and analytical tools.

Source: Abdul Manaf (2008)

3. PROBLEM STATEMENT

From previous survey on hotels, in general, it was found that about 50% of the medium-sized hotels appeared to have the new integration of the information system and the information technology, in these hotels a partnership with companies of other industries, small hotels, on the other hand, were found to have a partnering relationship with travel agencies. According to Buick (2003) hotel traditionally lags other sectors in adopting information technology but this has changed in recent years and research into its application has followed suit. This argument has significant to some recent works as such Klein and Myers (1999); Kumar and Van Hillegersberg (2000); Wixom and Watson (2001); and Osterhout, *et. al.*, (2006). This research will describes about abilities of IS to optimize in the small hotels, in term of sustaining their operation.

Recently, O'Connor and Murphy (2012) coined out that some of researchers are currently focusing on a limited (“fashionable”) range of issues and ignoring important areas. For example, hotel companies annually spend millions of dollars on IS, yet few articles addressed the management of the IT resource. Similarly, there is a woeful lack of research on the use of IS in industry segments other than hotels. For example, developments in IS dramatically affect restaurant and food-service management, yet not a single article appeared in a high quality academic journal on the subject in the past 18 months. Theoretically, IS research dealing with integration to another component of the organizations, problems into perspectives as noted in Kroeber (2005), Kroenka (2008), O'Brian (2008), and Laudon and Laudon (2010). In addition, one of the problems of large-scale IS implementation is resistance from people who are unprepared for the changes associated with the implementation of new technology (Davenport, 2000). As implication of ideas as discussed above, to ensure successful consequences of IS implementation in the small hotel, the management of the implementing organization should put effort into change management, which directly affects user satisfaction and IS use.

The need to delineate the implications of the new components for the small hotels in Kedah to enhance efficient human resources management, the small sized hotels in Kedah should consider associating closely. The study is crucial in its approach and suitable to be implemented in the small sized hotels in Kedah, which give the motivation to implement the information technology for this area, and considered as a starting point in information system for small sized hotels, which could open the way for everyone to evaluate these services Specifically,

the employees can see the benefit that the IS can provide to these small hotels in order. In addition, this research has a lot of benefits to the hotels that located Kedah, as is known, the services provided in major cities is not such services provided in Kedah, especially in IS field, so this study comes to help and to enhance the current small sized hotels to determine the requirements to utilize the information system for these hotels. The small hotels in Kedah state need to enhance the competitive positions that can lead to improve the management capacity, where IS plays major role as backbone of the hotel operation.

4. OBJECTIVES

The objective of this study is to investigate the utilization of the information system (IS) in the small sized hotel in Kedah.

5. RESEARCH METHODOLOGY

5.1 Research Framework

The research framework used in the study was adapted from Nunamaker (1991). Initially, this model can be used as a guideline to develop research framework to become indicator the relationship between information system characteristics and organizational success. Therefore, the model in this study suggests that by using information system the firms have advantages on their operation and make them better than before.

5.2 Sampling

The basic information of this work was come from the list of the hotel directory of Kedah/Perlis. Totally, there were 150 small hotels in Kedah listed in the directory with majority located in Langkawi. In order to ensure the consistency of the sample in the directory, recheck have been done with Kedah Information Tourism Centre. This process is very important because the directory content is subject to change from time to time. Therefore, there were 150 of small sized hotels had been taken randomly from the list as a sample and this sample consist of a hundred percent (100 %) from total populations of small hotels of Kedah and Perlis.

Research questionnaires were distributed to 150 hotel administrations by using mail. In order to try to catch the respondents, follow-up by phone has been done for several times. Meanwhile, one of reasons for the sample selection was time constraint and unknown status about hotels operation. Researcher also gave more than one month in order to ensure the respondents will be able to answer the questionnaire properly and return it on time.

5.3 Items of Measurement

The questionnaire was adopted from the previous and related works on the same fields of utilizing the IS in the other organizations and other fields in order to obtain the flexibility of this study to illustrate the gap performance from the IS in an organizations. The first section is demographic background that consists of five items. The second section is measures the utilization of information system which is consists 18 items, as indicated in Table 2.

In addition, respondents have been asked to indicate their degree of agreement or disagreement with each statement on a five-point likert scale, from strongly disagree to strongly agree.

Table 2: Item of Measurement

1.	Utilize the IS on the hotel will make the employees can take a decision?
2.	The business skill can be obtained with the business performance?
3.	The information very important to develop the business?
4.	The customer is the main impact on the hotel performance?
5.	Is the customer can effect on the hotel reservation?
6.	The hotel interest with the customer feedback?
7.	Customer services are effective issues in hotel?
8.	Recognizing the satisfaction between the customer and the hotel?
9.	The technology tools is very important to develop the utilize the information system in these hotels?
10.	The customer services impact on utilize the information system on this hotel?
11.	Utilize of IS in your hotel will enhance the customer satisfaction?
12.	Use of the information system in this hotel for more benefits?
13.	Utilize the IS will reduce the hotel risk?
14.	Determine the IS issue would be increase the performance at all?
15.	Data support such as availability of relevant data and in proper format
16.	Complex problems such as difficult to build appropriate model
17.	Model building software such as lack of proper development
18.	Team working such as willingness to cooperate among cross-functional members.

6. RESULTS

6.1 Demographic Background

Table 3 shows the demographic background of respondent with the majority of respondent was single, which presented 70.0% bachelor and 30.0% respondents was married.

Table 3: Respondents Background

Variables	Item	N	%
Gender	Male	40	40.0
	Female	60	60.0
	Total	100	100
Education Background	Degree	50.6	50.6
	Master	30.9	30.9
	Phd	0	0
	Others	18.5	18.5
	Total	100	100
Age	18-25 years	55.3	55.3
	26-33 years	30.7	30.7
	34-41 years	13	13.0
	> 41 years	1	1.0
	Total	100	100
Material Status	Married	30	30.0
	Single	70	70.0
	Total	100	100

6.2 Utilization of Information System in Small Hotels

The result of the frequency analysis shown the majority of respondent, agreed on item 1 ‘Utilize the IS on the hotel will make the employees able to take a decision?’ which are 60.6% (Slightly agree) and 39.0% (Strongly agree). While, the result of the frequency analysis shown the majority of respondent, agreed on item 2 ‘The business skill can be obtained with the business performance?’ which are 56.6% (Slightly agree) and 43.4% (Strongly agree). Otherwise the result of the frequency analysis shown the majority of respondent, agreed on item 3 ‘the information very important to develop the business?’ which are 56.6% (Slightly agree) and 39.4% (Strongly agree).

The result of the frequency analysis shown the majority of respondent, agreed on item 4 'The customer is the main impact on the hotel performance?' which are 53.5% (Slightly agree) and 46.5% (Strongly agree). In addition, the result shown the majority of respondent, agreed on item 5 'Is the customer can effect on the hotel reservation?' which are 45.5% (Slightly agree) and 54.5% (Strongly agree). Similarly, the result of the frequency analysis shown the majority of respondent, agreed on item 6 'The hotel interest with the customer feedback?' which are 51.5% (Slightly agree) and 48.5% (Strongly agree).

The result of the frequency analysis shown the majority of respondent, agreed on item 7 'Customer services are effective issues in hotel?' which are 12.1% (Slightly agree) and 868.9% (Strongly agree). Similarly, the result shown the majority of respondent has agreed on item 8 'Recognizing the satisfaction between the customer and the hotel?' which are 50.5% (Slightly agree) and 49.5% (Strongly agree). However, the result shown the majority of respondent, agreed on item 9 'The technology tools is very important to develop and utilize the information system in these hotels?' which are 49.5% (Slightly agree), 49.5% (Strongly agree), and 1.0 % (Not sure).

The result of the frequency analysis shown the majority of respondent, agreed on item 10 'The customer services impact on utilize the information system on this hotel?' which are 45.5% (Slightly agree) and 52.5% (Strongly agree). Similarly, the result shown the majority of respondent, agreed on item 11 'Does Utilize of IS in your hotel will enhance the customer satisfaction?' which are 45.5% (Slightly agree) and 54.5% (Strongly agree). While, the result shown the majority of respondent, agreed on item 12 'Use of the information system in this hotel for more benefits?' which are 52.5% (Slightly agree), 46.5% (Strongly agree), and 1.0 % (Not sure).

The result of the frequency analysis shown the majority of respondent, agreed on item 13 'Utilize the IS will reduce the hotel risk?' which are 42.4% (Slightly agree) and 57.6% (Strongly agree). The result shown the majority of respondent, agreed on item 14 'Determine the IS issue would be increase the performance at all?' which are 48.5% (Slightly agree), 50.5% (Strongly agree), and 1.0 % (Not sure). In addition, majority of respondents, agreed on item 15 'Does the data support such as availability of relevant data and in proper format?' which are 44.4% (Slightly agree) and 55.6% (Strongly agree).

The result of the frequency analysis shown the majority of respondent, agreed on item 16 'Does complex problems such as difficult to build appropriate model?' which are 57.6% (Slightly agree), 40.4% (Strongly agree), 1.0% (Disagree), and 1.0% (Not sure). Moreover, majority of respondents has agreed on item 17 'Does Model building software such as lack of proper development?' which are 47.5% (Slightly agree) and 52.5% (Strongly agree). In addition, majority of respondent, agreed on item 18 'Does the team working such as willingness to cooperate

among cross-functional members?' which are 58.6% (Slightly agree) and 41.4% (Strongly agree).

6.3 Discussions

In general, the results present the agreement between the different answered, however, the highest agreement between the employees was on the importance of the depending on the environment analysis to manage the IS utilizing whereby the result of the mean and the Std was (mean = 3.38, SD = 1.062), however the agreement about the tools and the other features that could help to utilize the IS in these hotels. To obtain the business skill in these hotels which get high agreement from the employees that was (mean = 3.87, SD = 1.022) that followed with the necessary to provide the appropriate knowledge and facilities for the business skill that need to utilize in these hotels.

Otherwise the effectively of the customers on the hotel performance could impact to utilize the IS for this research, however the agreement was (mean = 4.71, SD = .844) by effect followed with the importance customers need on this utilization (mean = 3.77, SD = 1.127). By keeping work up with new ideas to develop the hotels performance that could be satisfy with the customers need (mean = 3.55, SD = 1.077).

The other perspective for utilizing the information system in the hotels could help this hotel to enhance the performance was (mean = 3.84, SD = 1.158). In other way of the team working such as willingness to cooperate among cross-functional members which provide the highlight about this utilization was (mean = 3.75, SD = 1.029).

The output which has been shown in (Table 4) indicate that the testing result for the evaluation phase is clarify appear less than .05 ($p < .05$) than the difference between the means is significant that shown in the below table, however the output of the testing shown that the there is a significant difference in the respondent, otherwise the different points in this significant guide to that the sample has chosen randomly from same sectors in order, which that productively present the strength point of this evaluation.

The t-test above with test value = 1, illustrated the test value with the different items, that t value was = 50.594 for the ability of IS to develop the business, Furthermore the high t value was t value was = 70.488 for the effectively of the customer on the hotels reservations, and t value was = (68.761) for the ability of IS to support the employees to take their decision, otherwise the t value was = (68.590) for the ability of the business skill to be obtained with the business performance, and t value was = (68.769) for impact of the customer on the hotel performance.

Table 4: One Sample Test

	Test Value = 1					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Q1	68.761	99	.000	3.394	3.30	3.49
Q2	68.590	99	.000	3.434	3.33	3.53
Q3	50.594	99	.000	3.354	3.22	3.49
Q4	68.769	99	.000	3.465	3.36	3.56
Q5	70.488	99	.000	3.545	3.45	3.65
Q6	69.028	99	.000	3.485	3.38	3.59
Q7	64.592	99	.000	3.828	3.71	3.95
Q8	69.200	99	.000	3.495	3.39	3.60
Q9	66.395	99	.000	3.485	3.38	3.59
Q10	50.495	99	.000	3.505	3.37	3.64
Q11	70.488	99	.000	3.545	3.45	3.65
Q12	66.043	99	.000	3.455	3.35	3.56
Q13	71.623	99	.000	3.576	3.48	3.67
Q14	66.563	99	.000	3.495	3.39	3.60
Q15	70.835	99	.000	3.556	3.46	3.66
Q16	59.520	99	.000	3.374	3.26	3.49
Q17	69.886	99	.000	3.525	3.43	3.63
Q18	68.616	99	.000	3.414	3.32	3.51

However, the value illustrated from test the ability to recognize the satisfaction between the customer and the hotel t value was = 69.200 which presented the highest value among this group, also the t value presented the lowest value that was = 50.495 for the impact of customer services on utilize the IS in the hotels. Furthermore the t value for the hotel interest with the customer feedback was = (69.028), t value was = (64.592) for the effectively of the services on the hotel, and t value was = (66.395) for the importance of technology tools on utilize IS on these hotels.

The t value presented the highest value for the ability of IS to reduce the risk among the hotels was = 71.623, otherwise the lowest value for the t value was = 66.043 for the benefit of using the IS in the hotels. Otherwise t value was =

(70.488) for utilize of IS in the hotels will enhance the customer satisfaction, in order t value was = (66.563) for the ability of IS to increase the performance, and for the availability of relevant data and in proper format t value was = (70.835). Furthermore the highest t value for the ability of model building software such as lack of proper development was = (69.886), however, the lowest t value for complex problems such as difficult to build appropriate model was = (59.520), and t value was = (68.616) for team working such as willingness to cooperate among cross-functional members.

7. SUGGESTIONS AND CONCLUSION

This study focuses on the utilization of information system in small-sized hotels that located in Kedah, otherwise this study will evaluate the usefulness of the used this services in these hotels in order. This research has a lot of benefits to the hotels that located Kedah, as is known, the services provided in major cities is not such services provided in Kedah, especially in information system field, so this study comes to help and to enhance the current small sized hotels to determine the requirements to utilize the information system for these hotels. However this utilization provide the hotels in different sectors located in Kedah with the competitive advantages in order to determine this utilization, according to the problem statement and the current features in this hotels.

To determine practical IS issues, several surveys over the years have gathered information from IS practitioners. Some have dealt with specific areas, such as the international arena, the public sector, entrepreneurial problems, and comparisons of the of Kedah status, while others have been more general.

IS researchers continued to focus on topics that were of concern to practitioners. In a field in which technology changes as rapidly as it does in IS, the concerns of the practitioners may change too quickly to be able to perform thorough research on those topics. In addition, given a lengthy publication n process to disseminate research findings, they may no longer be of interest to the practitioner at the time of publication. As researchers invest their efforts and resources into a particular area of study, they tend to continue with that area in order to reap the e rewards of their efforts. In the case of this study, to test the usability of the utilization the information system in small sized hotels in Kedah will be evaluated through doing a questionnaire to evaluate the two areas. Then, attitude toward use predicts the behavioural intention to use.

In the real integrations for the new features the importance to determining the impact of the other external or internal integrations, however this study proposed to utilize the information system (IS) in the small hotels that located in Kedah, also this utilization could help to determine the appropriator requirements that need to determine in order to success this utilization. The new integration of the

information system that could appear in the large and small hotels, with the additional business applications and other components, the epitome integration provides a powerful for the management to control and support the single and multi-property for the other enterprises fields.

Nowadays, IT is now being used in all aspects of business. There is not a single transaction occurs in daily business, but involve more than one billions transaction from various types of business in one time. Because of IT change so fast and difficult to predict, so it is important to students to remember about types of computing technology that selected for their purposes. Ideally, types of computing technology have direct impact toward information systems as well as we discuss in early. Hence, the firms expect information technology solutions to be upgradeable accordingly to the change of computing technology. At the same time, the businesses that can upgrade their systems to ensure they can serve better to worldwide customers and retrain customers on new system interfaces when the system are upgraded and re-lunches in organization.

REFERENCES

- Abdul Manaf. (2008). *Management Information System*. Kuala Lumpur: Asia e-University Publication.
- Abdul Manaf. (2005). *Decision Support System: Concept and Application*. Petaling Jaya: Prentice Hall.
- Allee, V. (1997). *The Knowledge Evolution: Expanding Organizational Intelligence*. Boston: Butterworth-Heinemann.
- Alpar, P., & Ein-Dor, P. (1991). Major IS concerns of entrepreneurial organizations. *Information and Management*, 1-11.
- Australian Government. (2011). *Snapshots 2009 - Internet Use in Trip Planning*. Retrieved 21 January, 2012, from <http://www.ret.gov.au/tourism/Documents/tra/Snapshots>.
- Ayres, R. (1999). *The Essence of Professional Issues in Computing*. New Jersey: Prentice Hall.
- Amoako-Gyampah, K., & Salam, A. F. (2004). An extension of the technology acceptance model in an ERP implementation environment. *Information & Management*, 41, 731-745.
- Barwise, P., Elberse, A., & Hammond, K. (2002). Marketing and the Internet: A Research Review. Working Paper No. 01-801, Mayo.

- Buick, I. (2003). Information Technology in small Scottish hotels: Is it working. *International Journal of Contemporary Hospitality Management*, 15(4), 243-247.
- Chathoth, P. K. (2007). The impact of Information Technology on hotel operations, service management and transaction costs: A conceptual framework for full-service hotel firms. *International Journal of Hospitality Management*, 26(2), 395-408.
- Chwelos, P., Benbasat, I., & Dexter, A. S. (2001). Research report: Empirical test of an EDI adoption model. *Information Systems Research*, 12(3), 304-21.
- Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behaviour. *Journal of Retailing*, 77, 25-35.
- Davenport, T. H. (2000). *Mission Critical: Realizing the Promise of Enterprise Systems*. Harvard Business School Press, Boston, MA.
- Fuchs, M., Witting, C., & Höpken, W. (2009). E-business readiness, intensity and impact - An Austrian hotel study. In *Information and Communication Technologies in Tourism 2009*. Edited by Wolfram Höpken, Ulrike Gretzel, and RobLaw, 431-42. Vienna: Springer.
- Gebhart, G., Treyvaud, R., & Rounds, L. (2004). *Professional Development in ICT: A Range of Possibilities*. Retrieved 25 June, 2005, from <http://www.aset.org.au>.
- Hamelink. (2000). *ICT for Information Age*. New Jersey: Prentice Hall.
- Henry, R. (2000). *The Unofficial Guide to Online Investing*. New York: IDG Books Worldwide.
- Hogg, D. L. (2002). *Introduction to ICT*. New Jersey: Prentice Hall.
- Ip, C., Leung, R., & R. Law. (2011). Progress and development of Information and Communication Technologies in hospitality. *International Journal of Contemporary Hospitality Management*, 23, 533-551.
- Kumar, K., & Van Hillegersberg, J. (2000). ERP - Experiences and evolution. *Communications of the ACM*, 43(40), 22-26.
- Kuan, K. K. Y., & P. Y. K. Chau. (2001). A perception-based model for EDI adoption in small businesses using a technology-organization-environment framework. *Information & Management*, 38(8), 507-521.

- Kim, W. G., & Ham, S. (2006). The impact of Information Technology implementation on service quality in the hotel industry. *Information Technology in Hospitality*, 4(4), 143-151.
- Klein, H., & Myers, M. (1999). A set of principles for conducting and evaluating interpretive field studies in Information Systems. *MIS Quarterly*, 23(1), 67-94.
- Kroeber, D. W. (2005). *Management Information System: A Handbook for Modern Managers*. Washington: Penguin Publication Team.
- Kroenka, D. (2008). *Management Information System*. Washington: Mitchell Publishing.
- Laudon & Laudon. (2010). *Management Information Systems*. New York: McGraw-Hill.
- Laudon, K. C., & Laudon, J. P. (2010). *Management Information Systems: Managing the Digital Firm*. NJ: Pearson Prentice Hall.
- Law, R., & Au, N. (1998). Information Technology applications to the Hong Kong hotel industry. *International Journal of Management*, 15(3), 377-384.
- Law, R., & Jogaratnam, G. (2005). A study of hotel Information Technology applications. *International Journal of Contemporary Hospitality Management*, 17(2-3), 170-180.
- Law, R., Leung, R., & Buhalis, D. (2009). Information Technology applications in hospitality and tourism: A review of publications from 2005 to 2007. *Journal of Travel & Tourism Marketing*, 26(5), 599-623.
- Leung, R., & Law, R., (2012). Evaluation of hotel Information Technologies and EDI adoption: The perspective of hotel IT Managers in Hong Kong. *Cornell Hospitality Quarterly*, 54(1), 25-37.
- Markus, M. Lynne, & Daniel Robey. (1988). Information Technology and organizational change: Causal structure in theory and research. *Management Science*, 34(5), 583-598.
- Mukhopadhyay, T., & Kekre, S. (2002). Strategic and operational benefits of electronic integration in B2B procurement processes. *Management Science*, 48(10), 1301-1313.
- Nyheim, P. D., McFadden, F. M., & Connolly, D. J. (2005). *Technology Strategies for the Hospitality Industry*. NJ: Prentice Hall.

- O'Brian, J. A. (2008). *Management Information Systems: Managing Information Technology in the Business Enterprise*. New York: McGraw-Hill Irwin.
- O'Connor, P., & Murphy, J., (2012). A review of research on Information Technology in the hospitality industry. *International Journal of Hospitality Management*, 23(5), 473-484.
- O'Connor, P. (2008). Managing hospitality Information Technology in Europe: Issues, challenges and priorities. *Journal of Hospitality Marketing & Management*, 17(1-2), 59-77.
- Osterhout, M. P. A. van, Waarts, E., & Hillegersberg, J. (2006). Change factors requiring agility and implications for IT. *European Journal of Information Systems*, 15(2), 132-145.
- Rayport, J. (2005). *Introduction to e-commerce*. Boston: McGraw-Hill/Irwin Marketplace.
- Senn, J. A. (2004). *Information Technology in Business (2nd Ed)*. New Jersey: Prentice Hall.
- Siguaw, J. A., Enz, C. A. & Namasivayam, K. (2000). Adoption of Information Technology in U.S. hotels: Strategically driven objectives. *Journal of Travel Research*, 39(2), 192-201.
- Stir & Raymond. (2007). *Principles of Information System*. Canada: Thomson.
- Turban, E., Aronson, J. E., & Liang, T. P. (2006). *Decision support systems and intelligent systems (7th Ed)*. New Jersey: Prentice-Hall, Inc.
- Turban, E., McLean, E., & Wetherbe, J. (2009). *Information Technology for management: Making connection for strategic advantages (6nd Ed)*. New York: John Wiley & Sons.
- U.S. Travel Association. (2009). *Travel Facts and Statistics*. U.S. Travel Association. Retrieved from <http://www.ustravel.org/news/press-kit/travel-facts-and-statistics>.
- Wixom, B. H., & Watson, H. J. (2001). An empirical investigation of the factors affecting data warehousing success. *MIS Quarterly*, 25(1), 17-41.
- Williams, J., & Ramaprasad, A. (1996). A taxonomy of critical success factors. *European Journal of Information Systems*, 5(5), 250-260.