INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH & DEVELOPMENT

ISSN 2278 – 0211 (Online)

Relationship between ICT Integration and Operational Performance of Hotels in Kenya

Victor Onyango Omanyo
MBA Student, Jomo Kenyatta University of Agriculture and Technology, Kenya

Abstract:
Today, business organizations face a more complex and competitive environment than ever before. Globally, as trade barriers crumble and less-developed countries enter the competitive marketplace, firms now confront a greater number of competitors that are capable of introducing new products and services faster and at cheaper costs. One area of innovation that has been the focus of significant discussion is ICT integration, which has the capacity to impact organizational structure, firm strategy, operational procedures, and buyer-supplier relationships. The study sought to establish the relationship between ICT integration and operational performance of hotels in Kenya. The study was specifically meant to establish the effect of online booking and reservation on operational performance and to determine the effect of online marketing on operational performance of hotels in Kenya. The study was anchored on three theories namely the theory of competition, the theory of innovation and resource based theory. The study used a descriptive cross-sectional survey design. A survey design describes people responses to questions about a phenomenon or situation with aim of understanding respondent's perceptions from which truism is constructed. This is based on the constructivist epistemology which holds that reality is what respondents generally perceive to be. The population of the study comprised of all hotels in Kenya as at October, 2014. The hotels were grouped under the sub headings; 1-star, 2-star, 3-star, 4-star and 5-star. The higher the star rating of the Hotel indicates the higher luxury. The study used purposive sampling. This sampling technique is one where the items for the sample are selected deliberately by the researcher and the researcher's choice concerning the items remains supreme. The exact sample size consisted of only the 5-star hotels. There are 33 five star in Kenya. This study used primary data. Primary data was collected by the use of a structured questionnaire. The questionnaire was administered using 'drop-and- pick later' method. The data collected was cleaned, validated, and edited for accuracy, uniformity, consistency and completeness. Descriptive statistics was used to determine the extent to which ICT was integrated by the hotels. Regression analysis was then be used to test the relationship between ICT integration and operational performance of hotels in Kenya. The multiple correlation coefficient R was used to test the strength of the relationship between the independent variables and the dependent variable. The strength of the Model in explaining the relationship between ICT integration and operational performance of the hotels was then tested using R^2. From the findings the study there is a strong positive correlation between ICT integration and operational performance of hotels in Kenya. Online booking, online reservation, online marketing and online payment technologies are seen as significant in cost reduction, flexibility of operations and improvement of quality of goods and services. Form the findings, the study recommended that the current information and communications technologies should be updated, upgraded and seamless integration both internally and externally should be done to improve the tourism business operations. The integration of ICT in tourism would benefit both, service providers and customers bringing together other stakeholders as well, on a common platform. The selection of right information communications technology tool is also crucial to match the customer requirements with service dimensions.

***Keywords*:** *ICT integration, Operational performance*

1. Introduction

1.1. Background of the Study

Today, business organizations face a more complex and competitive environment than ever before (Porter and Stern, 2001). Globally, as trade barriers crumble and less-developed countries enter the competitive marketplace, firms now confront a greater number of competitors that are capable of introducing new products and services faster and at cheaper costs (Garten, 1998). Furthermore, as consumers have become more discriminating and demanding, product life cycles have been shortened, forcing firms to contract time

to commercialization and provide higher levels of customer service and customized products (Lovelace, Shapiro and Weingart, 2001). In this business environment, innovation of organizational processes is a major business challenge and is critical for firms' success (Veliyath and Fitzgerald, 2000). If firms focus on reducing costs and improving quality to gain a competitive advantage in the past, companies today must be able to innovate at the global frontier and create and commercialize a stream of new products and processes that shift the technology frontier (Porter and Stern, 2001). One area of innovation that has been the focus of significant discussion is ICT adoption, which has the capacity to impact organizational structure, firm strategy, operational procedures, and buyer-supplier relationships (Williams, Nibbs, Irby and Fmley, 1997).

Hotels have experienced enormous growth in business volume thereby making them larger and more complex to manage and meet challenges of customer demands. As a result, sophisticated service technologies and production processes have led to a new demand on hotels systems of control. Tourism as one of the currently fast growing industries across the world cannot go further without ICT support. In today's world, the tourism industry must have appropriate adoption of ICT innovations in order to gain a new shape which is acceptable in the modern business world. Poon (1993) suggests that the whole system of information technologies is being rapidly diffused throughout the tourism industry and no player will escape information technologies impacts. ICT is used to strengthen a company's internal operations, such as logistics, procurement, and human resource and contracts management, information and data management, communication functions, and to facilitate the flow of products between businesses and consumers including marketing, ordering, payment, delivery, and searching for suppliers (McIvor and Humphreys, 2004).

Kenya is one of the most popular tourism destinations in Africa and tourism is a key foreign exchange earner for the country (GOK, 2007). Various government Ministries have had responsibility for tourism since Kenya's independence. They include the Ministry of Tourism and Wildlife; Ministry of Wildlife and Natural Resources; Ministry of Tourism, Trade and industry and currently Ministry of Tourism. A number of parastatal bodies also have a significant influence over the industry including: Kenya Wildlife Service (KWS) which is responsible for Wildlife Management and Conservation; Kenya Tourist Development Board (KTDB) which promotes local investment in tourism enterprises; African Tour and Hotels (AT & H), responsible for hotel management and tours and Kenya Tourism Board (KTB) which, like other national tourist offices, is a marketing and promotions organization (GOK, 2007). Electronic commerce is turning out to be a positive tool for the tourism industry in Kenya. Tour operators, the first one to hook on to, have launched innovative websites and portals to zero in on both domestic and foreign clients (O'Brien, 2004). Tourism is one industry which has made use of the Net to the core. The online tourism industry has enormous potential, with many opportunities for the existing companies who have vested interests in the tourism industry, or new companies with an entrepreneurial idea (Forrester, 1995). People are already making bookings over the Internet, planning their holidays, reading magazines and newspapers, exchanging information and doing a thousand things they never thought they would be doing electronically (Wang and Cheung, 2004). Emerging Information Technology-based tools require re-engineering of business processes as well as the development of strategic vision and commitment to enable tourism enterprises and destinations to develop competitiveness.

Effective and high-speed ICT infrastructure and software applications in the tourism and hospitality industry are crucial for tourism development. ICTs allow customer - management relations and supply chain management to be combined into a single source that facilitates a variety of operations - product selection, ordering, fulfillment, tracking, payment and reporting to be performed with one easy-to use tool. ICTs ultimately cut costs by enabling the provider to be in direct contact with the consumer and also impact employment through the need for required maintenance of ICT equipment. Management within tourism companies use ICTs to undertake a range of tasks that enhance the efficiency of employees in the workplace, notably online reservations (Bethapudi, 2013). Through new technology and social and economic ratings including social media platforms like Facebook, Twitter and blogs, customers have the ability to share information and research ratings on destination, quality of service in hotels and restaurants and environmental and social conditions. Number of hotels have strengthened their brand image and communicate directly with their customers by posting links to a press release or promoting new package through Twitter. Bethapudi (2013) further asserts that in marketing ICTs provide unique opportunities for innovative organizations to redesign tourism products to address individual needs and to satisfy consumer wants. ICTs have also become part of the core product, especially for business travelers who now expect certain facilities to be available during their trip. The internet and the World Wide Web have revolutionized the promotion and communication functions of tourism. ICTs can reduce commission costs.Through ICT, Centralized Reservation Systems (CRS) could be used to exploit data and information resources. The link to a centralized reservation system is considered one of the most important benefits of joining any hotel franchise. Networking the centralized reservation system enhances cost effectiveness, faster communications, and effective exchange of information and efficient management of data (Lucey, 2005). With a sophisticated central reservation system, a hotel chain provides individual hotels and managers in the chain with a tool to increase reservations, maximize sales, implement yield management, enhance market capabilities and improve quest services. The systems are also linked to airline CRSs to form a Global Reservation System in order to allow travel agents to make direct reservations for their clients.

1.2. Operational Performance

According to Zhu, Sarkis and Lai (2008) operational performance takes into account the company's performance in reaching its basic objectives including productivity, quality and service delivery. It involves improving cost performance which means that organizations need to identify the inefficiencies and waste in processes (Russell & Taylor, 2008). Operational performance of hotels is determined by a number of factors including size of the hotel and the training level of employees among other factors. On the size of the hotel, the variable size has been widely employed to classify companies of different industries including hotels. Hotels of larger size achieve higher levels of performance as the greater firm size generally means higher possibilities to incur in economies of scale.

In the hotel industry, the size has been demonstrated to explain factors such as the level of innovation (Orfila-Sintes and Mattson, 2009), the quality and the environmental management practices, as well as the type of growth strategy implemented in the company (Claver, Molina and Pereira, 2007). Training has direct relationship with the employees 'performance. Training is a formal and systematic modification of behavior through learning which occurs as result of education, instruction, development, and planned experience (Armstrong, 2000). Armstrong (2000) asserts that training has acquired a strategic value for hotels since service quality depends on employee customer care effectiveness. The more training means high performance. The skill and competency levels of employees are therefore heavily dependent on the amount and type of training they get.

1.3. Problem Statement

Electronic commerce offers tourism businesses the potential to make information and booking facilities available to large number of tourists at relatively low costs. It also provides a tool for communication between tourism suppliers, intermediaries, as well as end-consumers (Reynolds, 2006). Electronic business offers hotels the opportunity to undertake their business in new and more cost-effective ways. The internet is revolutionizing the distribution of tourism information and sales. An increasing proportion of Internet users are buying-on-line and tourism will gain a larger and larger share of the online commerce market. Electronic commerce is turning out to be a positive tool for the tourism industry in Kenya. Tour operators, the first one to hook on to, have launched innovative websites and portals to zero in on both domestic and foreign clients (O'Biren, 2004). The online tourism industry has enormous potential, with many opportunities for the existing companies who have vested interests in the tourism industry, or new companies with an entrepreneurial idea (Forrester, 1995).

Maswera, Edwards and Dawson (2008) undertook a survey among tour companies in United States which indicated that online leisure travel bookings reached about $51B in 2005, or 44% of all online sales, which were around $122B in the same year. According to Laudon and Traver (2004) most companies in the hotel and travel industry consider electronic mail to be very important in gaining international exposure and connecting with potential customers. Wang and Cheung (2004) observed that new technologies can produce an essential contribution to tourism development. They asserted that for tourism businesses, the Internet offers the potential to make information and booking facilities available to large numbers of tourists at relatively low costs. In another study, Kamel and Hussein (2004) showed that the lack of adequate infrastructure to handle online payments limited online reservations to e-mail reservations. In the aforegoing discussions and available literature, limited studies have been done regarding how E-commerce especially electronic payment systems have improved the operational performance of hotels in Kenya. This research therefore intends to answer the question 'What is the relationship between ICT integration and operational performance of hotels in Kenya?

2. Literature Review

This study is anchored on three theories namely the theory of competition, the theory of innovation and resource based theory.

2.1. Theory of Competition

Barney (1991) asserted that a firm has a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. When two or more firms compete within the same market, one firm possesses a competitive advantage over its rivals when it earns a persistently higher rate of profit (Grant, 1996). Competition exist when different organization seek commitments of time and energy from the same target markets and an organization faces competition when its success depends upon behaviour of other actors who are trying to fulfill similar customer needs. Porter (1985) noted that it is a prudent for any firm to understand the underlying sources of competitive pressure in this industry in order to formulate appropriate strategies to respond. Hax and Majluf (1996) stated that competitive advantage is created when resources and capabilities that are owned exclusively by the firm are applied to developing unique competencies. Moreover, the resulting advantage can be sustained due to the lack of substitution and imitation capabilities by the firm's competitors. Advances in information and communications technology have allowed for a wide range of electronic business models and applications. These applications are providing a competitive advantage for organizations by creating efficiencies and cost reductions. ICT should therefore be part of the overall competitive strategy and be integrated into core business processes.

2.2. Theory of Innovation

It was developed by Schumpeter (1934). He described development as historical process of structural changes, substantially driven by innovation which was divided by him into five types namely; launch of a new product or a new species of already known product; application of new methods of production or sales of a product; opening of a new market; acquiring of new sources of supply of raw material or semi-finished goods and new industry structure such as the creation or destruction of a monopoly position. Schumpeter (1942) argued that anyone seeking profits must innovate. That will cause the different employment of economic system's existing supplies of productive means. Hanush and Pyka (2007) believed that innovation is considered as an essential driver of competitiveness and economic dynamics. According to Schumpeter (1942) innovation is a process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. In a world of increasing competition and technological change, the generation and diffusion of innovations increasingly rely upon new technological knowledge which is generated not only by learning processes within internal Research and Development department, but also by interactions with sources of innovation in the systems of innovation (Tidd, 2006). Thus, a critical component of successful innovation is the ability of a firm to exploit and utilize external knowledge from different sources of innovation (Lin and Chen, 2007).

2.3. Resource-Based Theory (RBT)

Barney (2011) argues that the RBT approach has evolved from a nascent, upstart perspective to one of the most prominent and powerful theories for describing, explaining, and predicting organizational relationships. Wade and Hulland (2004) assert that the capabilities of a company including ICT expertise, firm networks and supply chain involvement could also be generated from the external context of the firm necessitated by the developments in technology. Hence, in view of this explanation, the following factors can be viewed as forming bundles of firm assets important to the firm and for inclusion in the framework: resources and capabilities, top management support, cost of ICT, human capital and networks and supply chain.The theory asserts that ownership and control of strategic resources and capabilities determines which organizations will earn superior profits and enjoy a position of competitive advantage over others. Hult and Ketchen (2001) posit that it is the combination of resources within organizations that collectively contribute to competitive advantage. The researchers suggest market orientation, entrepreneurship, innovation, and organizational learning collectively contribute to the creation of unique resources.

2.4. Conceptual Framework

Mugenda (2003) asserts that a conceptual framework gives an explanation of how the researcher perceives the relationship between variables deemed to be important in a study. Such relationship in the present study is given in figure 1

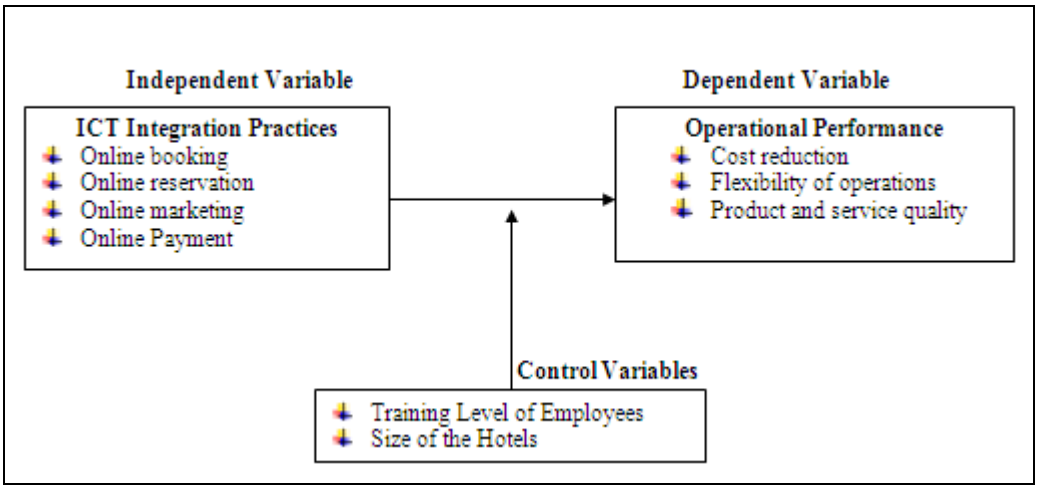

Figure 1: Conceptual Framework

From the figure 1, Independent variable consisted of specific ICT integration practices which were derived from four general categories namely online booking, online reservation, online marketing and online payment technologies. The dependent variable was operational performance. Operational performance was measured by the extent of reduced operational cost reduction, flexibility of operations and product and service quality. The size of the hotel and training level of employees were the control variables. The size of the hotel was measured by the level of bed capacity while the training level was measured by the level of qualification of employees.

3. Research Methodology

3.1. Research Design

The study used a descriptive cross-sectional survey design. A survey design describes people responses to questions about a phenomenon or situation with aim of understanding respondent's perceptions from which truism is constructed (KIM, 2009). This is based on the constructivist epistemology which holds that reality is what respondents generally perceive to be. Mugenda and Mugenda (1999) asserts that the purpose of descriptive survey research is to determine and report the way things are and it helps in establishing the current status of the population under study. This design was the most appropriate since it ensures that the data obtained gives appropriate answers to the research questions.

3.2. Target Population

The population of the study comprised of all hotels in Kenya as at October, 2014. The hotels were grouped under the sub headings; 1-star, 2-star, 3-star, 4-star and 5-star. The higher the star rating of the Hotel indicates the higher luxury. The entity in charge of determining the conditions by which Hotels will be accountable and which will determine whether they receive one or five star is the World Organization of Tourism.

3.4. Sample and Sampling Technique

The study used purposive sampling. This sampling technique is one where the items for the sample are selected deliberately by the researcher and the researcher's choice concerning the items remains supreme (Kothari, 2004). The exact sample size consisted of only

the 5-star hotels. There are 33 five star in Kenya according to Trip Advisor (2014) (Appendix II). The justification is that the 5-star hotels have high level activities with compliance requirements and close stakeholder interest. This would mean high levels of ICT integration in their operations.

3.5. Data Collection

This study used primary data. Primary data was collected by the use of a structured questionnaire (Appendix I). The questionnaire was administered using 'drop-and- pick later' method. The questionnaire included the ICT integration variables at different application areas. The data collected helped to assess the extent of ICT integration in the areas of online booking and reservation and online marketing. The respondents were the top managers of the hotels because they are deemed to be well versed with ICT application requirements as well as those already implemented by the Hotels.

3.6. Data Analysis

The data collected was cleaned, validated, and edited for accuracy, uniformity, consistency and completeness. Descriptive statistics was used to determine the extent to which ICT was integrated by the hotels. Regression analysis was then be used to test the relationship between ICT integration and operational performance of hotels in Kenya.

The following regression model was used:

$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + \varepsilon$,

- Where:

Y = Operational performance index (Dependent variable).

a = Constant

b_1, b2, b_3 and b_4 are constants

X_1= Online booking

X_2 = Online reservation

X_3 = Online marketing

X_4= Online payment

X_5 = Size of the hotel (Control variable)

X_6 = Training level of employees (Control variable)

ε = Error term.

The multiple correlation coefficient R was used to test the strength of the relationship between the independent variables and the dependent variable. The strength of the Model in explaining the relationship between ICT integration and operational performance of the hotels was then tested using R^2.

4. Data Analysis, Presentation and Interpretation

4.1. General Information

The respondents were characterized by the years they have been in operations, the number of employees and the level of training of employees.

4.1.1. Years of Operation of Hotel

	Frequency	Percent	Valid Percent
1-9 years	5	20	20
10-19 years	8	32	32
20-29 years	6	24	24
Above 30 years	6	24	24
Total	25	100.0	100.0

Table 1: Years of Operation of Hotel
Source: Research data

The respondents were asked to indicate the number of years they have been in business. Majority of the respondents representing 32% responded that they have been in business for 10-19 years consequently another 24% also indicated that they have been in business for 20-29 years and for above 30 years. Minority of the respondents of 20% however stated that they have been in operations for 1-9 years. From the results it can be inferred that majority of the respondents have the necessary experience hence they could give objective responses.

4.1.2. Size of the Hotel

No. of Employees	Frequency	Percent	Valid Percent
1-20	2	8	8
21-30	6	24	24
31-40	8	32	32
Above 40	9	36	36
Total	25	100.0	100.0

Table 2: Number of Employees
Source: Research data

The respondents were asked to indicate the number of employees that worked in their hotels. By the results shown in table 4.2 above, majority of the respondents representing 36% said the number of employees is above 40, while the least representing 8% said that they have between 1-20 employees.

4.1.3. Level of Training of Employees

Level of Training	Frequency	Percent	Valid Percent
Diploma in hotel management	4	16	16
Degree in hotel management	12	48	48
Masters degree in hotel management	8	32	32
Doctorate degree in hotel management	1	4	4
Total	25	100.0	100.0

Table 3: Level of Training of Employees
Source: Research data

The respondents were asked to indicate the level of training of their employees. From table 4.3 it can be seen that majority of the respondents representing 48% said their employees had a degree in hotel management, 32% indicated that their employees had a masters degree in hotel management, 16% of the respondents indicated that their employees had a diploma in hotel management and the least was 4% which indicated that their employees have a doctorate in hotel management. From these results it can be inferred that the bulk of respondents had training in hotel management and therefore were in a position to give the required information.

4.2. Level of ICT Integration by Hotels

The researcher sought to investigate the extent to which ICT integration is important to the hotels operations. The respondents were asked to indicate the extent to which ICT have been integrated within the operations of the hotels. ICT is integrated in online booking, online reservation, online marketing and online payment. A likert scale was used where 1= unimportant, 2= less important, 3= moderately important, 4=very important and 5= extremely important.

	N	Mean	Std. Deviation
Online booking	25	3.9200	1.25565
Online reservation	25	4.0400	1.09848
Online marketing	25	4.2000	1.08012
Online payment	25	4.0000	1.29099
Valid N (listwise)	25		

Table 4: Descriptive Statistics of ICT Integration
Source: Research Data, 2014

The table 4 shows that online marketing had the highest significance on operational performance with a mean of 4.2 followed by online reservation with a mean of 4.04. Online payment however had a mean of 4.0 followed lastly by online booking with a mean of 3.92.

4.3. Relationship between ICT Integration and Operational Performance of Hotels

In this section regression analysis was done to determine if there is a relationship between ICT Integration and operational performance.

RESPONDENT	X_1	X_2	X_3	X_4	X_5	X_6	Y
1.	4.20	4.10	4.00	3.80	4	3	3.83
2.	4.00	4.20	3.80	3.60	3	4	3.90
3.	3.80	4.40	4.10	4.20	4	4	3.78
4.	3.91	3.50	3.75	4.17	5	3	3.44
5.	4.09	4.20	4.10	4.42	5	3	3.73
6.	4.30	4.60	4.25	4.67	5	4	4.03
7.	4.10	4.24	4.38	3.83	5	3	3.66
8.	3.82	3.40	3.75	3.92	5	5	3.49
9.	4.00	3.4	3.88	3.54	5	4	3.24
10.	3.90	3.42	4.20	3.80	5	3	2.99
11.	4.20	3.20	3.63	4.08	5	3	3.20
12.	4.10	4.20	4.13	4.33	3	2	3.40
13.	3.80	3.64	3.63	4.20	2	3	3.91
14.	4.20	3.40	3.75	4.00	3	3	3.19
15.	3.80	4.20	3.38	3.54	3	3	3.91
16.	4.10	3.60	4.25	3.92	4	4	3.54
17.	3.22	4.20	4.80	4.80	5	3	3.23
18.	3.80	3.80	3.25	3.80	5	2	4.63
19.	4.20	3.80	4.38	4.17	3	3	3.65
20.	4.40	4.20	3.38	4.58	3	3	3.78
21.	3.40	3.80	3.75	3.25	5	4	3.31
22.	3.36	4.40	3.75	3.75	5	3	3.59
23.	3.27	4.20	3.63	3.92	1	2	3.18
24.	4.50	3.20	3.75	4.83	5	4	3.76
25.	4.60	4.40	4.38	4.17	5	4	3.65

Table 5: Average Responses on Each Aspect of ICT Integration and Corresponding Operational Performance
Source: Research Data, 2014

- Where;

Y= Operational Performance
X_1= Online booking
X_2= Online reservation
X_3= Online marketing
X_4= Online payment
X_5=Size of Hotel
X_6= Training Level of Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.730[a]	.427	.327	.42653432	.427	4.617	6	42	.008

Table 6: Regression Model Summary
Source: Research Data

From table 4.10, adjusted R^2 is 0.327 which means that there was 32.7% positive variation in operational performance index due to changes in independent variables and control variables, and 57.3% is variation of the dependent variable due to other factors not in the model. The correlation coefficient tells us the strength of the relationship between the variables. The study found that the correlation coefficient was 0.730 thus there was a strong positive correlation between ICT integration and operational performance.

	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.243	6	.540	3.617	.065[a]
Residual	4.930	33	.149		
Total	8.173	39			

Table 7: Analysis of Variance
Source: Research Data

From ANOVA table the significant value for the model was 0.065 which means that the model was statistically significant since it is lower than 0.05.

5. Summary, Conclusion and Recommendations

5.1. Summary of Findings

The objectives of the study were to establish the relationship between ICT integration and operational performance of hotels in Kenya. Specifically, the study was meant to establish the effect of online booking and reservation on operational performance of hotels in Kenya and to determine the effect of online marketing on operational performance of hotels in Kenya. The target respondents were heads of ICT, general managers, human resource managers and Chief financial officers. Most of the hotels have been in business for between 10-19 years.

5.2. The Extent to Which ICT Integration Important to Hotels

Online booking, online reservation, online marketing and online payment were the ICT integration practices adopted by the Hotels. The respondents agreed that ICT integration practices are indeed important to the hotels. Online marketing was viewed by the respondents as the most important practice followed by online reservation, then online payment and finally online booking. This finding is consistent with the study carried out by Salim, Shayo, Abaho and Ali Sheikh (2013). They studied state of affairs in ICT usage within tourist hotel operations in Zanzibar. Results indicated a high level of awareness and usage of ICT applications

5.3. The Relationship between ICT Integration and Operational Performance

The study results show that the coefficient of correlation is 0.73 meaning that there is a positive relationship between ICT integration and operational performance. The following regression equation was established:

$Y= 0.717 +0.411X_1 + 0.710X_2 + 0.68X_3 + 0.285X_4 + 0.056X_5 + 0.019X_6$

From the above equation the study found that online booking, online payment employee level of training and size of the hotel have a positive but not significant influence on operational performance at 5% level of significance. Online reservation and online marketing however has positive and significant effect on operational performance.

5.4. Conclusions

From the findings the study there is a strong positive correlation between ICT integration and operational performance of hotels in Kenya. Online booking, online reservation, online marketing and online payment technologies are seen as significant in cost reduction, flexibility of operations and improvement of quality of goods and services. This conclusion is consistent with the study by Bethapudi (2013). In his paper, the role of ICT in tourism industry, he concluded that ICT should be integrated with tourism to enable more accessibility, visibility of information, availability of variety of products and satisfaction.

5.5. Recommendations

Form the findings, the study recommends that the current information and communications technologies should be updated, upgraded and seamless integration both internally and externally should be done to improve the tourism business operations. The integration of ICT in tourism would benefit both, service providers and customers bringing together other stakeholders as well, on a common platform. The selection of right information communications technology tool is also crucial to match the customer requirements with service dimensions. The study further recommends that hotels websites should be upgraded and updated with the latest technologies to increase the business potentiality. The hotels should also integrate all departments through ICT. For policy purposes, the study recommends that high-speed internet facilities should be provided by the government and power failures should be avoided. The government should encourage the development of mobile commerce and should be integrated within tourism industry.

5.6. Limitations of the Study

First, the study was limited in scope by the fact that it only covered 5-star hotels. The study would give a better picture for policy reasons if it reflected all hotels. Secondly, the researcher faced some resistance from some of the respondents as they feared that the information they gave would be used by competitors to fight them business wise. This was however resolved through explanation and assurance that the information would be confidential. Lastly, the researcher also faced challenges in terms of resources such as finances for commuting to the different hotels and time in the sense that, a lot of time was needed for going to the hotels, meeting with managers, convincing them to fill the questionnaires and finally going back to pick them.

5.7. Suggestions for Future Research

The study only concentrated on the 5-star hotels, there is need to conduct a research on other levels of classification to confirm the consistency of the conclusions in Kenya. Further research would be appropriate on the each aspect of ICT integration for detailed analysis and conclusion. Finally a research should be conducted to assess the factors that affect ICT integration within the hotel industry in Kenya.

6. References

1. Armstrong, M. (2000). Understanding training. Human Resource Management Practice. 8th Edition. Kogan page limited, London.
2. Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management 17 (1): 99–120.
3. Bethapudi, A. (2013). The role of ICT in tourism industry. Journal of Applied Economics and Business, 1, 4, 67-79.
4. Claver, E., Molina, J. Y., Pereira, J. (2007). The impact of strategic behaviours on hotel performance. International Journal of Contemporary Hospitality Management, 15 (6)1, 6–20.
5. Forrester R. (1995). Implications of lean manufacturing for human resource strategy. Work Study, 44, 3.
6. Garten, J. E. (1998). Why the global economy is here to stay. Business Week, 23, 21-29.
7. Government of Kenya (2007). Assistance to micro and small and medium enterprises Programme: A Ministry of Trade Initiative. Nairobi: Government Printer.
8. Grant, R.M. (1996). Prospering in dynamically- competitive environments: organizational capability as knowledge integration. Organization Science 7 (4): 375-387.
9. Hanush, H. & Pyka, A., (2007). Elgar Companion to Neo-Schumpeterian Economics, Edward Elgar, Cheltenham.
10. Hax, C.A., & Majluf, N. S. (1996).The Strategy Concept and Process: A Pragmatic Approach. 2nd edition, Prentice Hall
11. Hult, G. T., & Ketchen, D. (2001). Does market orientation matter? A test of the relationship between positional advantage and performance. Strategic Management Journal, 22 (9), 899-906.
12. Lin, C.Y. & Chen, M.Y. (2007). Does innovation lead to performance? An empirical study of SMEs in Taiwan. Management Research News 30 (2), 115-132.
13. Lovelace, K., Shapiro, D. L., & Weingart, L. R. (2001). Maximizing cross-functional new product teams' innovativeness and constraint adherence: A conflict communications perspective. Academy of Management Journal, 44, 4, 779-793.
14. Lucey, J. (2004). How much does it cost to change a light bulb? Management Services, 1.
15. Maswera T., Edwards J., & Dawson R., (2008). "Recommendations for E-Commerce adoption: Information & Management, 42(7), 947-964.
16. Mclvor, R., & Humphreys, P. (2004). The implications of electronic B2B intermediaries for the buyer-supplier interface: International Journal of Operations and Production Management, 24(3), 241-269.
17. Mugenda, M. O. (2003). Research methods: Quantitative and Qualitative approaches. Nairobi: African Centre For Technology Statics (ACTs).
18. O'Brien, D. & Rounce, J. (2001). Managing knowledge management. Oilfield Review, 66-83.
19. Orfila-Sintes, F. Y., &Mattsson, J. (2009). Innovation behavior in the hotel industry. The International Journal of Science Management, 37(2), 380-394.
20. Poon, A. (1993). Tourism, Technology and Competitive Strategies. London: Cab International.
21. Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance. New York: The Free Press.
22. Porter, M. E. & Stern, S. (2001). Innovation: location matters. MITSloan Management Review, 42, 4, 28-36.
23. Reynolds, J. (2006). The Complete E-Commerce Book. Berkeley, Publishers Group West
24. Russel, R.S., & Taylor, B.W., (2008). Operations Management. Prentice Hall Inc. New Jersey.
25. Schumpeter, J.A. 1934, The theory of economic development: an inquiry into profits, capital, credit, interest and the business cycle. Harvard Economic Studies, 46.
26. Veliyath, R. & Fitzgerald, E. (2000). Firm capabilities, business strategies, customer preferences, and hypercompetitive arenas: The sustainability of competitive advantages with implications for firm competitiveness. Competitiveness Review, 10, l, 56-82.
27. Wanjau, K., Macharia, R. & Ayodo, E. (2012). Factors affecting adoption of electronic commerce among small medium enterprises in Kenya: Survey of tour and travel firms in Nairobi. International Journal of Business, Humanities and Technology, 2, 4
28. Wang, S., & Cheung, W. (2004). E-Business adoption by travel agencies: Prime candidates for mobile e-business. International Journal of Electronic Commerce, 8, 43-63.
29. Williams, L. R, Nibbs, A., Irby, D. & Fmley, T. (1997). Logistics integration: The effect of information technology, team composition, and corporate competitive positioning. Journal of Business Logistics, 18, 2, 31-41.
30. Zhu, Q., Sarkis, J., & Lai, K. H. (2008). Confirmation of a measurement model for green supply chain management practices implementation. Int. J. Production Economics, 111 (4), 261-273.