

**FACTORS INFLUENCING ADOPTION OF INFORMATION
COMMUNICATIONS TECHNOLOGY IN MANAGEMENT OF HOTELS: A
CASE OF SELECTED FIVE STAR HOTELS IN NAIROBI COUNTY, KENYA**

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DECLARATION

This research project report is my original work and has not been presented in any other university or any institution of higher learning for examination.

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This research project report has been submitted for examination with my approval as University Supervisor.

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DEDICATION

This project is in Memory of my late sister Priscillah Kitondo. Your absence has been a motivation to achieve what you encouraged me to pursue.

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First and foremost I would like to thank the Almighty God for availing an opportunity and strength to pursue my education. It is through His abundance grace that has brought this research project to a success. This work would have not been possible without my Supervisor, Dr. Anne Aseey for her guidance and assistance in doing the research. I acknowledge her support and thank her most sincerely for her tireless efforts.

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TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
ABBREVIATIONS AND ACRONYMS	ix
ABSTRACT.....	x
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem.....	6
1.3 Purpose of the Study	7
1.4 Objectives of the Study	7
1.5 Research Question	7
1.6 Significance of the Study	8
1.7 Basic assumptions of the study	8
1.8 Limitation of the study.....	9
1.9 Delimitation of the Study.....	9
1.10 Definition of significant terms used in the study.	9
1.11 Organization of the Study	10
CHAPTER TWO: LITERATURE REVIEW	11
2.1 Introduction.....	11
2.2 Information Communications Technology Adoption in Hotels Management.....	11
2.3 Staff Literacy and Adoption of ICT in Hotel Management	13
2.4 External Pressure on adoption of ICT in Management of Hotel.....	15
2.5 Online Marketing and Adoption of ICT in Management of Hotel	17
2.7 Research gap	20
2.8 Theoretical Framework	20
2.9 Conceptual Framework	22
CHAPTER THREE: RESEARCH METHODOLOGY	23
3.1 Introduction.....	23
3.2 Research Design.....	23
3.3 Target Population.....	23
3.4 Sample Size and Sampling Procedures	24
3.5 Data for Research Collection Instruments	25

3.6 Data Collection Procedure	27
3.7 Data Analysis Techniques.....	27
3.8 Ethical Considerations	28
CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION.....	29
4.1 Introduction.....	29
4.2 Questionnaire Return Rate	29
4.3 Demographic Characterization of the Respondents	30
4.4 Staff Literacy	32
4.5 External Pressure	34
4.6 Online Marketing	37
4.7 Inferential Statistic	39
CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS .	42
5.1 Introduction.....	42
5.2 Summary of the Findings	42
5.3 Conclusions.....	43
5.4 Recommendations.....	44
5.5 Areas of Further study	45
REFERENCE.....	46
APPENDIX I: LETTER OF INTRODUCTION	52
APPENDIX II: QUESTIONNAIRE	53

LIST OF TABLES

Target Population Table.....	24
Sample Size Table.....	28

LIST OF FIGURES

Figure 2: Conceptual Frame work	22
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ABBREVIATIONS AND ACRONYMS

CBD	Central Business District
ERP	Enterprise Resource Planning
ICT	Information and Communications Technology
IT	Information Technology
IS	Information Systems
PACS	Picture Archiving and Communication System

ABSTRACT

ICT has become an integral part of human daily activities that sometimes we barely notice its effect, and has had a major impact on the way we live, work and play. Information technology is everywhere currently and adding to communication technology, the possibility of how it is used is endless. ICT has evolved into becoming a multipurpose technology given the critical spillover to the other economic sectors and its role as a cross-industry enabling infrastructure. Access, adoption and usage of ICT have become a key enabler of overall technological readiness for any country. The purpose of this study was investigated factors influencing adoption of information and communications technology in management of hotels in Kenya with focus on five star hotels in Nairobi County. The study specifically aimed to investigate how staff literacy, external pressure and online marketing influencing adoption of information and communications technology in management of hotels. The research problem was studied through the use of a descriptive research design. According to the information published by the Authority of Republic of Kenya, there are currently 33 five star Hotels in Kenya. The study relied mostly on primary data sources where self-administered questionnaire was utilized as source of data. Data collected was purely quantitative. Quantitative data was coded and entered into Statistical Packages for Social Scientists (SPSS Version 17.0) and analyzed using descriptive statistics. The response rate was 71% which was sufficient. The findings were presented inform of tables with relevant supporting information and inferential statistics was employed to show the relationship between variables. Through the study the findings were that external pressure, online marketing, staff learning influenced the adoption of ICT by the Hotel managements. The researcher concluded that the adoption of ICT by the hotel management was largely influenced by external pressure, staff learning and online marketing. The researcher recommended that operational productivity and customer satisfaction both should be considered together by hotel management. The researcher suggested that further research should be done on the other successful factors influencing adoption of ICT in the organization operation and also suggested that further study be done on the impacts of ICT on the organization performance in other sectors rather than service sector

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Over the last three decades, the impact of Information Communication Technology (ICT) in hotel and hospitality industries has been widely recognized as one of the major changes where it offers new ways of communicating with guests and improves services delivery to guests. In the twenty first century where the market is global, operating environment of businesses is continuously becoming complex and competition is a cutthroat, most businesses strive for competitive advantage over their competitors (Olifer & Olifer, 2010). Coping with these complex and dynamic business environments, both small and large enterprises requires continuous adoption and innovation in deployment of emerging technologies and management concepts. As such, ICT has become an integral part of human daily activities that sometimes we barely notice its effect, and has had a major impact on the way we live, work and play. Information technology is everywhere currently and adding to communication technology, the possibility of how it is used is endless.

Information and Communications Technology (ICT) involves the use of computer hardware, software and telecommunication devices to store, manipulate, convert, protect, send and receive data (Olifer & Olifer, 2010). Computer and technological devices have made it easier for professionals to collect, store, manipulate and share data and information both individually and within organizations, small and large, public and private. The way hotel companies sell to consumers is changing dramatically over the past few years. The use of networking in front office helps very much in sharing information across the hotels in chain. Despite the increasing popularity of computers, they are still limited to those with the skill to use them. The delivery of businesses today is exposed to information and communication technologies either directly or indirectly (Olifer & Olifer, 2010).

In hotels, computer are used in Accounting for guest, data management, forecasting guest demand for reservations, management of guest services, revenue and reservation management and yield management (Baker, Huyton & Bradley, 2006). These functions can perform with the aid of management software (Abbott & Lewry, 2009). Hotels being a subset of the hospitality industry traditionally practice manual system of operation in their front offices as from occupancy of the guest rooms,

recording of guest expenditure through to the eventual departure of the guest. Today, these operations are done using the electronic system. The use of information technology in a front office operation of the hospitality industry is fast growing, thus making work easy. Computerization is becoming very important for the efficient and effective operations of the hotels.

Developed countries such as UK, USA and Singapore is far advanced than developing countries in the areas of technological environment and infrastructure, probably because the technology is produced in developed nations, while the developing nations import it (Ihua, 2009). ICT has evolved into becoming a multipurpose technology given the critical spillover to the other economic sectors and its role as a cross-industry enabling infrastructure. Access, adoption and usage of ICT have become a key enabler of overall technological readiness for any country. In Portugal, many organizations have implemented the use of information and communication technology (ICT) in order to develop the products and services they offer to their customers. Modern enterprises largely depend on ICT for gathering and distribution of data and information. Other firms and individuals as well are using ICT to transfer money from one party to another. According to Kitur (2006) several organizations including banks, insurance companies and service companies have adopted ICT and considers it as a key success factor (KSF) for the reason that it has turned out to be the motivating force that is decisive in the production and delivery of goods and services in those industries.

In Malaysia and USA, respectively service industries are undergoing a transformation process using innovative products and tools from the ICT revolution (Karim, 2005). However, it is important that the tools to be evaluated for appropriateness, effectiveness and usability from the user's point of view. This understanding can assist educators in choosing the best product and in managing the tools for optimum benefit. They investigated group communication media choice and the use of a web-based learning tool, as well as other types of communication media such as email, telephone and face-to-face, for communication and collaboration to complete given tasks.

Employee perceptions and attitudes towards use of ICT in firms and the degree to which they were encouraged and had responded to the personalization of working

(Banyard & Underwood, 2007). Another study conducted in UK by Graham (2011) pointed that before using or discarding any technology, the following questions should be answered: What is the anticipated benefit of the innovation and will it be genuinely additional benefit? Is the chance of it being implemented successfully higher than the chance of its failure? What is the cost of its introduction in terms of disruption to the existing systems that are tried, known and reliable? Are there recurrent patterns of behavior that would give some pointers to its likely reception?

Innovation diffusion theory targets employees in small organizations. Small organizations usually lack professional IT knowledge and IT technical skills (Attwell, 1991). He believed that small European organizations failed because they lacked knowledge of information systems. Because of the obstacle, lack of skill and technical knowledge required in the development process, many organizations delay innovation adoption, and tend to wait until they have sufficient technical expertise. Thus, if employees in small organizations have more knowledge of information systems, then they will be more likely to adopt the information systems. Attwell (1991) explained that staff must have some knowledge of IT innovation in order to use more innovative IT. Based on these discussions, the IS knowledge of staff and the information intensity in the hospitals can be seen as the IS capabilities of staff.

Like in any other continents, most of the organizations in African countries are striving to adopt ICT in their operation. For example, in Nigeria application of networking is seeing a dramatic increase such that it is now one of the major issues in computer and information technology computers are presently widely used in sectors such as banking, Education, health commerce, agriculture, transport telecommunication (Attwell, 1991). Computers in business operations could be used for typing documents, keeping and retrieving information, data analysis, sending and receiving information over short and long distances etc. Computers are becoming popular in business because work did by them could be very fast thus results in increasing productivity, accurate in performing repetitive task, store information safely in relatively small space (Attwell, 1991).

In Kenya, adoption of ICT in service sector is not only applicable for multinational companies (MCs) in their competitive drive to stay ahead in technological progress, but also has a direct proposition for the small local companies in the sector. Unlike in

the 1990" s, the majority of companies in the industry have developed and have build up substantial financial resources and competence and are determined to compete with the industry major players in the use of ICT (Davis, 2009). However, they still have to tackle issues such as the lack of experienced human resources, and the need for improved awareness of cutting - edge technology expertise, and business processes. The coming on of modern internet-based ICTs in the 1990s has increased the attention of service-sector players in their aspiration to keep pace with their peers.

Some organizations have successfully embraced the use of ICT. For instance, Nation Media group through their digital platform commonly known as N-Soko enables their clients to purchase products online (Njogu, 2003). Awino (2011) conducted an investigation of selected strategy variables on firm's performance on ICT platform. The study focused on supply chain management in large private manufacturing firms in Kenya. It was established that most of the ICT strategies of large manufacturing firms in Kenya are not owned by individual firms but also other organizations within the SC that provide the required linkages towards the overall corporate performance of the manufacturing industry. Actually, most of the studies conducted are general - there is no intensive industry-specific research (Awino, 2011).

ICT realization is a cross-industry challenge. However, the extent through which ICT adoption in procurement processes and its effects on organization performance is still not clear (Mose, Njihia & Magutu, 2013). For scholars, ICT and its adoption in procurement is an upcoming phenomenon in the business fraternity, and needs to be critically analyzed. For procurement managers, ICT adoption in procurement applications creates a need to understand the impact of information technology on the achievement of competency on a practical level.

Hospitality industry in Kenya has evolved at the coast region for the first time. This was because of the coming of Arab traders and railway- line construction workers in the region. Their presence necessitated the building of the first catering establishment at the coast, which was known as the grand Hotel of Mombasa built at the present sit of Manor Hotel (Kamau & Waudo, 2012). They also argued that following the construction of railway, there was a growing demand for catering and the Hospitality industry service. This led to the demand for trained personnel.

In 1960, Hotels like Norfolk had reached international five star rating. Later in 1975, Hospitality training was also started at Kenya Utalii College with a limited capacity. The Hospitality service economy in Kenya is one of the major sectors generating more income and job opportunities in the country, Kamau & Waudu, 2012. It includes Hotels, Restaurants, and Pubs. The Hospitality industry gives services like food and beverages; lodge for any people who want the services. The business operation of Hospitality industry has direct relation with the business operation of Tourism industry. According to Wadongo, Odhuno, Kambona & Othuon (2010) the Hospitality industry made a significant contribution for the economic development of the Country. It is also becoming source of job opportunities for many people.

World Travel and Tourism Council (2006) explained that Hospitality industry in Kenya contributed 509,000 jobs in 2007 and forecast that the industry will contribute 628,000 jobs in 2017 (Wadogo *et al.*, 2010). This steady growth in the sector shows that it is contributing a lot for the general economic development of the Country. One of the industries in the Hospitality sector is Hotel industry. It is part of Hospitality sector that includes 5-star, 4-star, 3-star, 2-star, 1 star and other Hotels. Hotels in Kenya present divers range of services to suit tests of customers. Class, elegance, ambiance and quality services are the major distinguishing factors of the hotels. Hotels in the industry are operating in high competition. Despite the high quality and good facilities of Kenyan Hotels, Competition for resources and market share in the Hotel industry in Nairobi Kenya is becoming extremely high. Companies operating in the Hotel industry are facing higher competition in the market for skilled labor in the Hospitality profession and for market share. Customers' expectation and preferences are also increasing from time to time. This has forced hotels to focus adopt ICT in its operation and management practices (Wadogo *et al.*, 2010).

Hotels in Kenya are classified in star rating system that includes 5-star the higher luxury, 4 –star Hotels, 3-star Hotels, 2-star Hotels and 1-star Hotels. 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, Johanna (2010). According to Johanna (2010) currently every Country tends to have its own rules and requirements for determining Hotel classifications in spite of the recognized body. This brings inconsistencies of the tar-classification of Hotels.

Hotels assessment is based on the facilities they have and the service quality they offer.

The five star Hotels are the most luxurious ones in the market of Hotel industry in Nairobi Kenya. According to the information published by the Authority of Republic of Kenya, there are currently 33 five star Hotels while commonly known hotels are Intercontinental Hotel, Laico Hotel (formerly known as Grand Regency Hotel), Nairobi Hilton Hotel, The Norfolk Hotel, The Stanley Hotel and Nairobi Serena Hotel.

1.2 Statement of the Problem

With the advent of globalization and global financial crisis, adopting Information and Communication Technology (ICT) in Kenya companies has become increasingly important. On one hand, more and more companies are venturing abroad and approaching the international marketplace in order to get highly competitive position and maximum profit (Dayasindhu, 2011). Croom (2009) affirms that using ICT tools in management practices enables the organizations to save time and money, considerable reduction of travel requirements, and thus increasing the efficiency and effectiveness of companies. The exchange of information is very important at every stage in the sales cycle of the tourism product or service. Information must be able to flow quickly and accurately between the client, intermediaries and each of the tourism suppliers involved in servicing the client's needs. As a result, ICT (Information Communication Technology) has become an almost universal feature of the tourism industry. Its power allows information to be managed more effectively, and transported worldwide almost instantly. As a result, it has had (and continues to have) a major effect on the methods of operation of the hospitality industry.

Enhanced competition and customer expectation lead hotels to look for ways and means to achieve competitive advantage. Many hotels have adopted information and communication technology (ICT) as a way to cope with rapidly changing environments. Room reservation systems, procurement and inventory systems, wireless internet, e-mail, electronic transactions, and hotel web sites are some of the ICT applications that have been broadly implemented throughout the industry (Ham et al., 2005). Hotel managers believe CT adoption is a key success factor in enhancing

hotel performance (Siguaw, 2009). Improving both operational productivity and customer satisfaction is seen as a key issue for survival and success in the long term.

Despite vital role played by ICT in service industry, adoption of ICT in hotel industries has been slow (Ministry of tourism, 2012). This has shown some hotels to be performing better as compared by other. It is against this realization that this study sought to investigate factors influencing adoption of information and communications technology in management of hotels in Kenya with focus to five star hotels in Nairobi County.

1.3 Purpose of the Study

The purpose of this study was to investigate factors influencing adoption of information and communications technology in management of hotels in Kenya with focus on five star hotels in Nairobi County.

1.4 Objectives of the Study

The study was guided by the following objectives:

- i. To examine influence of the staff literacy on adoption of ICT in management of five star hotels in Nairobi County
- ii. To explore influence of external pressure on adoption of ICT in management of five star hotels in Nairobi County
- iii. To determine the influence of online marketing adoption on management the of five star hotels in Nairobi County

1.5 Research Question

The study seeks to respond to the following research questions.

- i. What is influence of Staff Literacy on adoption of ICT in management of five star hotels in Nairobi County?
- ii. What is the influence of External Pressure on adoption of ICT in management of five star hotels in Nairobi County?
- iii. What is the influence of online marketing on management of five star hotels in Nairobi County?

1.6 Significance of the Study

This study shows the extent of ICT infrastructure utilization in hospitality industry in order to get a grip of the relationship existing between technological advancement and economic development trend. Once managers grasp the importance of ICT infrastructures, it will in return create employment opportunity for graduates in IT and IT experts, who will handle, install manage and train users of these infrastructures in the various hospitality industry that will adopt it.

This study may be of benefit to the hotel industry by providing critical information to management in deciding on the areas that ICT should be adopted, such as room division or food & beverage division, as well as the specific technologies that would improve hotel performance. It also contributes valuable information to ICT marketing personnel.

The study may also create enough awareness on different types of ICT infrastructures used in hospitality industries today, help manages/stakeholders see ICT based facilities as a tool that will provide greater competitive advantage or to blunt the advantage enjoyed by its competitors, increase profits/revenue, cut down cost and improve service delivery while doing so, also ease out employees work load, making his /her job easier and faster.

1.7 Basic assumptions of the study

The researcher assumed that the respondents would be honest, cooperative, factual (objectivity) and trustworthy in their response to the research instruments and would be available to respond to the research instruments in time. It was also the assumption of the researcher that the authority in the hotels studied would grant the required permission to collect data from employees. The study further made the assumptions that there would be no serious changes in the composition of the target population that would affect the effectiveness of the study sample.

1.8 Limitation of the study

The researcher encountered various limitations that hindered access to information that the study was seeking. The main limitation of study was its inability to include more hotels in different classes across the country. The study focused on five star hotels within the Nairobi. The study should have covered more hotels across the country to provide a more broad based analysis.

The respondents targeted were reluctant in giving information fearing that the information sought would be used to intimidate them or print a negative image about the hotels. The researcher handled the problem by carrying an introduction letter from the University and assured the respondents that the information they will give will be treated confidentially and it will be used purely for academic purposes.

1.9 Delimitation of the Study

The survey covered factors influencing adoption of information and communications technology in management of hotels. The study interviewed management staff in six five star hotels in Nairobi County hence the findings of this study cannot be generalized to other counties. Questionnaires were used as the main source of data instrument and distributed to the sampled respondents.

1.10 Definition of significant terms used in the study.

Adoption of ICT: It is the act of starting using ICT as something on as your own.

External Pressure: Are circumstances in the wider business area.

Information and communication technology: is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems, as well as the various services and applications

Infrastructure: The basic physical and organizational structures and facilities needed for the operation of a society or enterprise.

Online Marketing; It is also called internet marketing or online advertising, its any tool ,strategy or method of getting the company name out in public . The advertisements can take

many different forms and some strategies focus on subtle messages rather than clear cut advertisements.

Staff Literacy: The ability for employees to read and write ,speak, listen and use numeracy and technology at a level that enables people to express and understand ideas and opinions, to make decisions and solve problems, to achieve their goals ,and to participate fully in their community and in wider society.

1.11 Organization of the Study

The research is organized in five chapters. Chapter one introduces the research and presents the statement of problem, objectives, and research questions. The chapter also shows the significance, limitations and delimitations of the study. Chapter two encompasses the literature review on the various aspects concerning factors influencing adoption of information and communications technology in management of hotels. Chapter three discusses the methodology that was used to collect and analyze data while showing the target population, the sample population and the data collection instrument. Chapter four discusses the data analysis techniques, the findings of the study and presentation of the same findings. Chapter five provides the summary of findings, the conclusion, discussions of the study, recommendations of the study and finally suggestions for further reading.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covers contributions from other scholars on factors influencing adoption of information and communications technology in management of hotels. The chapter is structured into theoretical review and empirical review, conceptual framework, critique of literature and finally summary gap that the study aims to bridge.

2.2 Information Communications Technology Adoption in Hotels Management

Modern organizations largely depend on ICT for gathering and distribution of data and information (Kitur, 2006). Information technology makes easy communication between persons or groups who are not physically near the same locality (Raymond, 2005). Systems such as cell phone, telex, radio, television, and video conferencing are included, as well as more modern computer-based technologies, e.g. electronic data interchange and e-mail. According to Olifer & Olifer (2006) until 1990's, nearly all hotels were operating under the manual system. With the introduction of computers, hotels are shifting to automated systems.

Most five-star hotels operate under the fully automated system. The fully automated systems are computer-based. This is the best system ever used in the hotel industry and it is characterized by the excessive use of departmental software package programs integrated and connected to a main frame or terminal server situated at the front office department (Olifer & Olifer, 2006) .When customers contact the front office with specific details of their proposed reservation, the Central Reservation Officer (CRO) checks room availability and makes reservation directly into the system (Baker, 2006). Making reservation now is easier for guests with the help of computers and Internet because guests do not have to be on site before booking for a room.

In the past, an individual can write or telephone the hotel directly, or approach a travel agent to make hotel room reservation. However, with current development in technology, the above methods are considered slow and costly. The improvement of ICT has introduced room reservation, now an individual can make room reservation online anywhere anytime so long as there is an electronic device with internet access,

thanks to the development of ICT. Moreover, using the online to make hotel room reservation has brought about a number of benefits. First, an individual can book room from home by using online security to protect their privacy and financial information. Unlike the past where personal information may be given to a middle party (Travel Agent), where there is risk of our information leaked out or sold to others, However there is no 100% guarantee that using online security can 100% protect our privacy as technology improves more security measures are taken to protect our privacy. Secondly, individuals can use services provided by the online travel agents to compare prices and facilities at different hotels. Online hotel reservations are helpful for making last minute travel arrangements (Gurnoor & Bhangu, 2012).

Improving guest satisfaction is the motto of hospitality sector and for guest satisfaction; industry is ready to invest in technology. Hotels need creative and innovation to get competitive edge. One guest may like hotel services while others may not. So it is very difficult to standardize hotel services. There is always urgency to sell hotel rooms because these are perishable. Hotels are bringing more and more new technology to attract guests. All luxury hotels are having HD TV, high speed Wi-Fi, mirror TV etc. some of the hotels are using fingerprint scanner to pay for everything and opening rooms. All successful hotels or chains are adopting technology very quickly even before they come to market. Space theme hotel and Yotel, Newyork are using robots for guest service. These hotels are not just selling rooms; they are selling an experience to guests. All hotels whether they are small, medium or large are trying to incorporate technology of one short or the other. Technology is not only helping in guest satisfaction but also give benefits to organization. Lifestyles of the people are greatly affected by the technology. Technology made life very convenient. Technology plays a crucial role for guest satisfaction and revenue management (Gurnoor & Bhangu, 2012).

In 2000, online reservations, websites information, virtual concierge, Wi-Fi were uncommon. Now there will be no luxury hotel without these facilities. It is important to understand all these technology so that we can install the proper one in our hotel. Installing technology without thinking is total waste and also not understanding the technological change will be suffered by organization. Technology is used for getting operation excellence. Technology and hospitality services are directly involved in the positive attitude of the guests that reflects in the guest satisfaction and customer

loyalty (Muhammad, 2012). Arash & Fartash (2012) stated that hospitality industry is changing speedily around the world due to technological changes in information and communication technology.

Technology has recently increased at an unprecedented rate in hospitality and tourism business (Connolly & Lee, 2009). In the hospitality industry, technology plays a critical role for raising customer's awareness, developing a realistic promise and delivering a complete service. Management should therefore use technology to manage their offers according to their guest's behavior circle. For example, managers must ensure that their website information focuses on customers, demands and needs, and should maintain a high search engine ranking. Law and Jogaratnam (2005) stated that technology can change the nature of hospitality business, products, processes and competition, and hospitality organizations that have failed to master the right technology would find difficult to direct and manage their organization.

Most of hotels have booking rooms and reservations over the phone, but technology has expanded well beyond that (Nikolis, 2008). Today, e-distribution systems include, yield management, Central Reservation Systems, and web bookings systems, all used to sell the product or services to the guests. In this regard, computers with hi tech systems are not just used for new ideas and innovation, but also to maintain the status quo. Many companies have adopted electronic computers so that they would not have to innovate; so they would not have to find new ways to achieve their objectives. Using computers, big organizations could get more control over their operations, their employees, and eventually their clients (Holmes, 2006).

2.3 Staff Literacy and Adoption of ICT in Hotel Management

Technological innovation has implications for employees of small businesses. Typically, most organizations are lacking in specialized IS knowledge and technical skills. Thong (1999) suggested that the higher IS capabilities the staff have, the higher their potential in the use of information systems, and thus the higher percentage of adopting ICT. A small business that has ICT knowledgeable employees will lower the knowledge barrier in understanding and using the ICT. In order to facilitate the successful implementation of information system in organizations, and to avoid adoption failure, the businesses should provide employees with computer education and training courses.

ICT acceptance among users of ICT who form part of a firm employee's base will impose positive impacts on IT adoption (Apulu & Latham, 2009). The lack of knowledge on how to use technology and low computer literacy are factors that affect the adoption of ICT. In summary, there is a need for computer education. Owner-managers need to attend training programs that will enlighten them on the benefits associated with the use of ICT. In addition, there is the general issue of skills and training. The skill deficiencies appearing in SMEs include not only technical abilities but also management skills (Arendt, 2008). Generally, SMEs do not develop training plans.

In most Nigerian SMEs, there is reluctance among owner-managers to invest on training their employees because these owner-managers are afraid that following the completion of such training and having improved their qualifications, these employees will leave and find employment in large companies that offer better salaries (Arendt, 2008). Notwithstanding, owner-managers need to conduct training sessions for staff that will assist in creating awareness on the benefits of adopting technology in organizations (Apulu & Latham, 2009).

According to Mohammad (2009), IT personnel helps organizations react to changes as well as providing necessary connectivity and modularity that enable rapid organizational response to changes. IT personnel contribute significantly to the extent of IT implementation. The lack of computer skills is regarded as the most common barriers to HIS adoption (Johnson 2001). The unfamiliarity with IT and computer operations amplified the degree of difficulties experienced by the end users in the initial transition stage. The consequent loss in work efficiency and frustration over the foreign technology directly attribute to the negative attitude end user adopted towards the new system, which have been proven detrimental to the assimilation of the new system and may result in system adoption failure (Berner, Detmer & Simborg, 2005).

Ifinedo (2012) found that lack of computer literacy among small business enterprise owners and a lack of knowledge regarding the benefits of Information Systems use is an inhibitor to Information Systems adoption in small businesses. Chircu and Kauffman (2000) found that inability to acquire skill and expertise in new technologies, and lack of training and education form significant barriers to the adoption of Information systems. Caldeira and Ward (2002) concluded that for small

businesses to successfully accept technological innovations, their executives and employees must have a reasonable knowledge of the relevance of IS in business operations. Mutula (2001) explained that the new problems, which are closely linked with the introduction of the computer technology, include low computer literacy among staff among other reasons. In agreement with this state of affair, low levels of IT literacy in the developing countries is the major factor that hinders efficient utilization of ICT.

Thong and Yap supported that end-users with computer experience are more at ease in participating in computer based information systems. A study by Montazemi (1988) indicates that the level of an end users computer literacy correlates with the user's participation in the systems development process. Effective organizational support and comprehensive user education are dominant concerns when introducing end users computing. He reported an increase in the use of computers with computer training. He also noted that the user education is important and that different types of users need different types of training. Montazemi (1988) found end user computer literacy positively correlated with user's satisfaction in context of small business environments.

2.4 External Pressure and adoption of ICT in Management of Hotel

External pressure refers to the influences that hotel facilities receive from sources external to it. If a firm's competitors, suppliers or customers are adopting and some types of IS or IT, this results in pressure for non-adopters to also adopt similar IS. This pressure is caused by the perception that adopters will have certain competitive advantages by using certain systems. Depending upon the intensity of the pressure, the type and need for implementing IS varies across organizations, Mohamad, 2009. Various studies have shown that increased external pressure in the marketplace has been a major force propelling companies to adopt and utilized various kind of IT / IS such as e-business (Mohamad, 2009).

External influence can take the form of encouragement or pressure and can vary from encouragement or pressure to recommendations, requests, or providing incentives or imposing penalties. External pressure here refers to the influence from trading partners and customers. The pressure exercised by powerful trading partners to adopt an innovation influences the adoption decision of an organization (Iacovou, Benbasat

& Dexter, 2005). An organization that adopts a particular innovation would demand their partners to possess a similar innovation process to fully utilize the innovation at an inter-organizational level.

Similarly, the demands from potential customers to possess an innovation have a strong impact on the adoption of IT in organizations (Abereijo, Adeniyi & Aderemi, 2009). Small businesses are very vulnerable to customer pressure, since they are more likely to be economically dependent on larger customers for their survival. The pressure from trading partners and customers is particularly high for small organization compared to larger businesses (Iacovou et al., 1995). Studies have provided evidence that significant external pressure in the adoption of IT and hypothesized external pressure can have a positive relationship with IT adoption (Chan and Ngai, 2007).

Hameed and Council (2012) in their research on Assessing the influence of environmental and CEO Characteristics for Adoption of Information Technology in Organizations explained that, competition increases the likelihood of innovation adoption. It is tough rivalry that pushes businesses to be innovative. They argued that empirically, studies have shown that more intense competition is associated with higher adoption rates. Competition leads to environmental uncertainty and increases both the need for and the rate of innovation adoption (Hameed & Council, 2012)

Porter and Millar (1985) suggest that, by adopting IS, businesses will be able to compete in three ways. IS can change the industry structure and, in so doing, alter the rules of competition. Information systems (IS) can also create competitive advantage by giving businesses new ways to outperform their rivals. Finally, IS spawning new businesses, often from within existing operations of the business. Therefore, a small business in an environment that is more competitive would feel a greater need to turn to IS to gain a competitive advantage. On the other hand, a small business in a less competitive environment would not be faced with a push to be innovative.

Organizations adopt innovation in reaction to an external demand or to achieve an advantage of an environmental opportunity (Damanpour & Schneider, 2006). The external environment plays a significant role in the adoption of new technologies and has been widely considered in IT innovation adoption in organizations. Quaddus and Hofmeyer (2007) considered competitive pressure, government support, trading

partners support and vendor support as different environmental aspects in investigating the factors influencing adoption of business-to-business trading exchange in small businesses. Examining the adoption of four different IT innovations in US small businesses, Premkumar and Roberts (1999), considered competitive pressure, pressure from trading partners, trading partners support and vertical linkage in the context of environment.

Fei and Shera (2011) in their research on understanding hospital information systems adoption in china argued that given the hospitals are responsible for making the HIS investments, the decisions of whether and how to adopt HIS solely rest on the hospital executives. Strong commitment from the executives ensure the deployment of adequate financial and human resources as well as the careful implementation of the HIS adoption plan. It is also able to influence the other adoption factors such as user acceptance to improve the chance of successful system adoption. As a result, HIS adoption projects are commonly nicknamed the executive's project in China and as the IT manager revealed: If one hospital failed to adopt HIS, there must be some problem with their hospital executives.

2.5 Online Marketing and Adoption of ICT in Management of Hotel

The recent growth of the Internet has considerably changed the operating environment of the hotel industry. The Internet has become an innovative marketing tool in offering travel information and online transactions (Doolin, Burgess, & Cooper, 2002). The information-based nature of tourism products means that the Internet, which offers global reach and multimedia capability, is an increasingly important means of promoting and distributing tourism services. Today, hotels' web presence is no longer exclusive to large hotels. Internet marketing tool is not just for big hotel chains. The websites that are well-designed and easy to navigate provide independent hotels with an inexpensive and effective platform for marketing and advertising, which potentially increase their competitiveness in the marketplace (Merono-Cerdan & Soto-Acosta, 2007).

The website marketing can potentially provide distinct value to the hotels. These come from the offering of information online, the possibility of establishing communications and exchange of information and the conducting of transactions online. The rapid adoption of Internet marketing by hotels has yielded myriad studies

of hospitality Internet adoption and its impact on hotel operation. (Hashim, Murphy, Purchase, & O'Connor, 2010; Scaglione, Schegg, & Murphy, 2009). The website marketing is particularly useful for dealing with intangible nature of the hotel service and to gain a competitive advantage (Baloglu & Pekcan, 2006). For tourism organizations, the website content allows them to engage customers' interest and participation, to capture information about their preferences, and to use that information to provide personalized services (Doolin et al., 2002).

Chung and Law (2003) indicated that well designed hotel websites with useful information can help increase sales volume and improve the reputation of a hotel. Scaglione et al. (2009) analyzed revenue per available room before and after hotels adopted websites. They found that website adoption related positively to hotel performance. Merono and Soto (2007) evaluated 228 Spanish firms and found a positive relationship between external web content and firm performance. Additionally, e-information was found as critical for enabling e-transaction to impact upon firm performance. Despite these findings, other research has produced mixed results concerning the relationship between Internet marketing orientation and performance. Shang, Hung, Lo, and Wang (2008) found that there are no significant differences in efficiency owing to different e-commerce adoption status. Sigala, Airey, Jones, and Lockwood (2004) employed data envelopment analysis (DEA) to analyze information and communication technologies (ICT) productivity impact and found ICT adoption does not always increase hotel productivity. They pointed out that ICT integration is more important for realizing productivity benefits than ICT availability.

The rapid development and commercialization of Information and Communication Technologies (ICTs) for the travel and tourism industry has prompted hotels and other enterprises in this sector to increasingly adopt these technologies. This is based on the expectation that the new ICT based technologies and processes would lead to an improvement in their operating efficiencies and customer service levels. The ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis.

A hotel will be more inclined to adopt ICTs if it expects the ICT based facilities to either provide greater competitive advantage or to blunt the advantage enjoyed by its competitors considering the characteristics of its customer profile, its market size and the intensity of competition that it has to face. Thus based on the profile of a hotel's visitors, the size of the market, or the intensity of competition, hotels may differ in their levels of ICT adoption propensity (Sigala, Airey, Jones & Lockwood, 2004).

Hotels utilize ICTs and the Internet extensively for their distribution and marketing functions. Global presence is essential in order to enable both individual customers and the travel trade to access accurate information on availability and to provide easy, efficient, inexpensive and reliable ways of making and confirming reservations. Although Central Reservation Offices (CROs) introduced central reservations in the 1970s, it was not until the expansion of airline CRSs and the recent ICT developments that forced hotels to develop hotel CRSs in order to expand their distribution, improve efficiency, facilitate control, empower yield management, reduce labour costs and enable rapid response time to both customers and management request (Sigala, Airey, Jones & Lockwood, 2004). Following the development of hotel CRSs by most chains, the issue of interconnectivity with other CRSs and the Internet emerged. This reduces both set-up and reservation costs, whilst facilitates reservations through several distribution channels (Sigala, Airey, Jones & Lockwood, 2004).

The market size, in terms of the number of tourists who visit the location, significantly influence adoption of ICT adoption, since hotels in smaller underdeveloped destinations may need to use the internet and other ICT based technologies like the GDS to a greater degree to reach out to the global population than hotels located in developed destinations. The competition level among the hotels in a location can also influence the adoption of ICTs. The general occupancy rate in the location is an indicator of the competitive intensity among the hotels in a location. High levels of occupancy rate at a location imply that the competition is low, and the hotels can expect to get their rooms filled with relative ease while low levels of occupancy point towards higher levels of competition to attract customers between the hotels in the location. High levels of competition may prompt the hotels to aggressively use ICT based technologies both for attracting customers as well as to increase the efficiency of its operations (Sigala, Airey, Jones & Lockwood, 2004).

2.7 Research gap

Nowadays, the internet has turned into an informative channel providing both individuals and organizations with different types of information making them aware of new tourism and travel opportunities and offers enabling them to compare the offers they have online purchases and provide feedback. It has also turned into a source for travel agencies and organizations to promote their services and products to their potential customers. The rapid development and commercialization of Information and Communication Technologies (ICTs) for the travel and tourism industry has prompted hotels and other enterprises in this sector to increasingly adopt these technologies. This is based on the expectation that the new ICT based technologies and processes would lead to an improvement in their operating efficiencies and customer service levels. The ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis. While ICTs will be used in the hotel industry from the late seventies in the form of Computerized Reservation systems and Global distribution systems, it was only in the 90s that the ICTs began to make a difference in the hospitality sector.

The studies that have been done on the adoption of information systems in healthcare such as (Niang, 2009) (Rahimi, Moberg & Timka, 2008), (Khoumbati, 2005), (Hung, Tsai & Jiang 2010) were done in developed countries which have better information technology infrastructure as compared to developing countries. Kenya is a developing country and the factors that drive ICT adoption are different from those that drive adoption in developed world. This research seeks to fill this knowledge gap through investigating the factors influencing adoption of information and communications technology in management of hotels.

2.8 Theoretical Framework

This study is based on the study of Technology diffusion theory. Technology diffusion theory is the common lens through which theorists study the adoption and development of new ideas. Individuals or members of a community define diffusion as the process by which an innovation is adopted and gains acceptance. The Diffusion theory represents a complex number of sub-theories that collectively study the processes of adoption. The most famous account of diffusion research by Rogers

(1995) where the definition of diffusion comprises of four elements, which are defined as;

Innovation: an idea, practices or object perceived as new by individuals or group of adopters. Communication channels: means by innovation moves from one individual to the next or group-to-group. Time: the non-spatial interval through which Diffusion event takes place. The events include innovation diffusion process, relative span of time for the individual or group to adopt the innovation and social system: a set of interrelated units that are engaged in joint problem solving activities to accomplish the goals.

Rogers (1995) also came up with the perceived attributes theory that assumes that innovation bears the following characteristics: relative advantage: degree in which an advantage is perceived as better than the idea it supersedes, compatibility. Degree that an innovation is seen to be consistent with existing values and norms, complexity. The degree in which an innovation is seen to be difficult or easy to understand and use trial ability: is the degree in which an innovation may be experienced on a limited basis and observability as the degree to which the results of innovation are visible to others. The easier it is for individuals to see results of an innovation, the more likely they are to adopt it (Rogers, 1995).

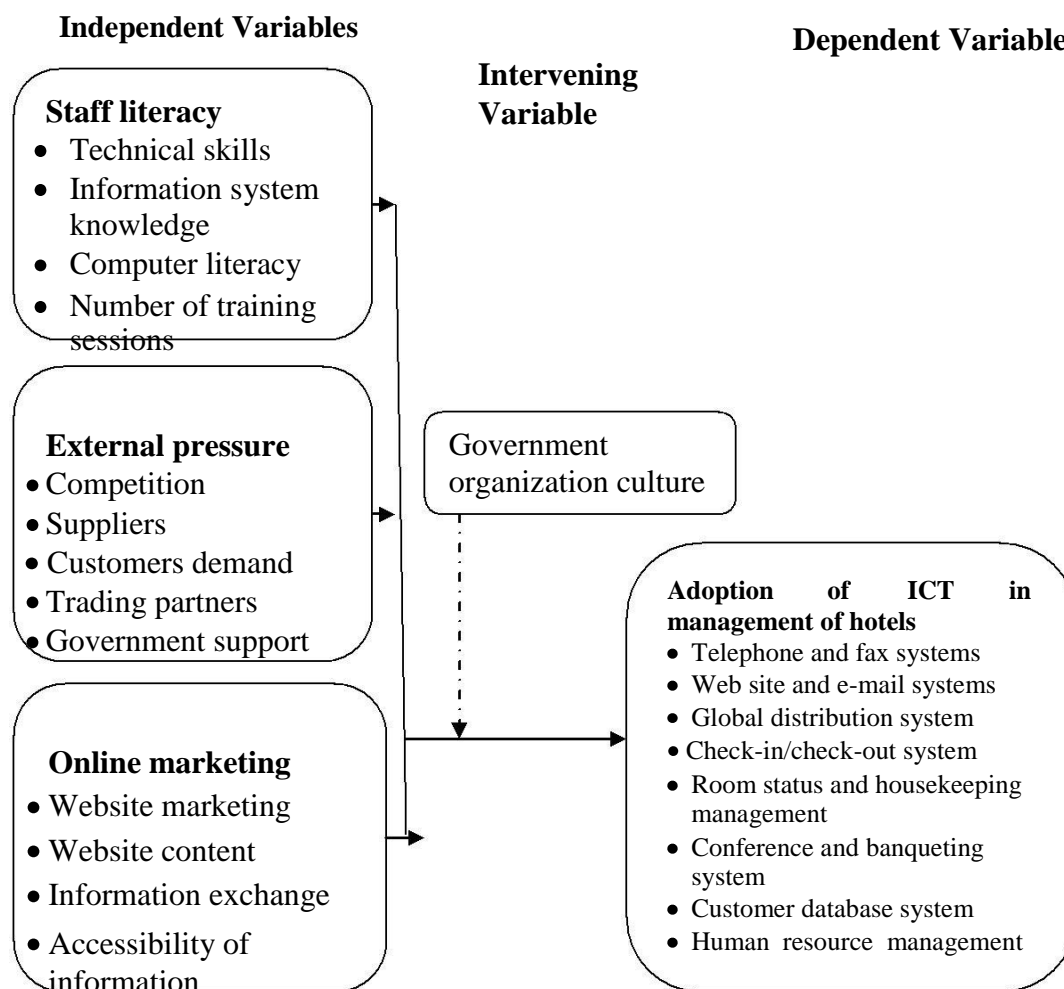
Although the process is not limited to these perceived attributes, the elements are helpful in formulating questions for potential adopters in better understanding what factors make adoption possible or desirable. Endogenous growth theory however indicates that the rate of technological progress, and hence the long-run rate of economic growth, can be influenced by economic factors which will curtail technology adoption in procurement as technology is seen as being costly. It starts from the observation that technological progress takes place through innovations, in the form of new products, processes and markets, many of which are the result of economic activities (Lieberth, 2007).

Technology revolution has impacted on purchasing; the drivers for change in purchasing function must include the objectives of eradicating paper transactions to a secure system that facilitates procure to pay as an objective of a world class procurement which is seen to enhance the performance of the procurement function (Lysons & Farrington, 2012). The Technology Diffusion theory is important in

guiding the firm to initiate change and adopt technologies in procurement in the shift towards world-class procurement.

2.9 Conceptual Framework

Framework refers to the main structure or skeleton that not only gives form and shape to the whole system, but also supports and holds together all the other elements in a logical configuration. In this research, the conceptual framework is the concise description of the phenomenon under study accompanied by visual depiction of the variables under study (Mugenda, 2008). The independent variables include staff literacy on ICT, Information system characteristics, ICT adoption on quality of customer" s service and the influence of online marketing on management while the dependent variable is Adoption of ICT in Management of hotels.



CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design to be used, target population for the study and the sample size that will be used. It also explains the data collection procedure, analysis and research instruments the study will adopt. It has also focused on validity and reliability of instruments and ethical issues.

3.2 Research Design

Research design is the scheme, outline or plan that is used to generate answers to research problems. This research problem was studied through the use of descriptive research design. According to Kothari (2007) descriptive survey research design is a type of research used to obtain data that can help determine specific characteristics of a group. The main advantage of descriptive survey research is that it has the potential to provide us with a lot of information obtained from quite a large sample of individuals. The study employed both quantitative and qualitative research designs this study. The study focussed on obtaining quantitative data from respondents targeted by use of questionnaires.

3.3 Target Population

Target population as described by Borg and Gall (2009) is a universal set of study of all members of real or hypothetical set of people, events or objects to which an investigator wishes to generalize the result. The target population of this study will be seven five star hotels operating within CBD. According to the ministry of tourism, there were 33 five star hotel in Nairobi within only six of them operating within CBD (Ministry of tourism, 2015). These five star Hotels are: Intercontinental Hotel, Hilton Hotel, Nairobi Serena Hotel, The Norfolk Hotel, The Stanley Hotel, Laico Hotel (formerly Grand Regency Hotel).

The hotels were selected due their strategies of adopting ICT in their operation and management practices. Mugenda and Mugenda (2003) explains that the target population should have observable characteristics to which the study intents to

generalize the result of the study. This definition assumes that the population is not homogeneous.

Table 3.1 Target Population

Branches	Departments				Total
	ICT	HRM	PR	Customers	
Intercontinental Hotel	3	6	6	12	27
Hilton Hotel	3	5	7	12	27
Nairobi Serena Hotel	5	5	5	12	27
The Norfolk Hotel	2	4	4	12	22
The Stanley Hotel	5	5	5	12	27
Laico Hotel	4	5	6	12	27
Total	22	30	33	72	157

From the six five star hotels operating within CBD, the possible number of staff is 85 from the ICT, public relation department, Human resource and 72 being customers.

3.4 Sample Size and Sampling Procedures

This section presented the methods and techniques for sampling, the procedure of sampling and eventually how the final study sample was reached from the target population. The details of how data was obtained processed and analysed.

3.4.1 Sample Size

Sample size is finite part of a statistical population whose properties are studied to gain information about the whole. Sampling is selecting a given number of subjects from a defined population as representative of that population. Any statements made about the sample should also be true of the population. It is however agreed that the larger the sample the smaller the sampling error. Where external validity is important, one need to carry out purposive sampling from properly defined population. From the target population of 157 respondents, the researcher interviewes 97respondnets from the six five star hotels as shown in table 3.2. These respondents having been in hotel industry and directly working in departments perceived to be oriented to ICT and management of hotels which are aligned to the study research objectives.

3.4.2 Sampling Procedure

The sampling procedure describes the list of all population units from which the sample will be selected (Cooper & Schindler, 2003). The technique is applied so as to obtain a representative sample when the population does not constitute a homogeneous group. The population is made up of strata of different departments in hotel. Sample of responding staff were drawn from all the seven five star hotels where purposive sampling technique was used. Stratified sampling technique was used on a sample size of 97 respondents from a population of 157. The study employed 30% in sampling, according to Mugenda and Mugenda (2003) a sample of 10 - 30% is representative. Purposive sampling technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population. Stratified random sampling is unbiased sampling method of grouping heterogeneous population into homogenous subsets then selecting within the individual subset to ensure representativeness. The goal of stratified random sampling is to achieve the desired representation from various sub-groups in the population.

Table 3.2 Sample Size and Sampling Procedures

Branches	Departments				TOTAL
	ICT	HRM	PR	CUSTOMER	
Intercontinental Hotel	3	3	4	7	17
Hilton Hotel	3	3	4	7	17
Nairobi Serena Hotel	3	3	4	7	17
The Norfolk Hotel	3	2	4	7	16
The Stanley Hotel	2	2	4	7	15
Laico Hotel	2	2	4	7	15
Total	16	15	24	42	97

3.5 Data for Research Collection Instruments

The study used questionnaires to collect primary data. The questionnaires was used to collect data from the selected staff within the selected hotels. Questionnaires are appropriate for studies since they collect information that is not directly observable as they inquire about feelings, motivations, attitudes, accomplishments as well as experiences of individuals (Mellenbergh, 2008). The questionnaire comprised

of both open and close-ended questions. Saunders (2003) stated that a questionnaire is useful in obtaining objective data because participants are not manipulated in any way by the study. According to Saunders (2003) questionnaires have the added advantage of being less costly and using less time as instruments of data collection. The data instrument addressed the three research objectives which was sub-divided into two sections. The first section of the questionnaire will enquire general information about the respondents, while the second section will answer the three objectives.

3.5.1 Pilot testing of the Instruments

The questionnaires was reviewed by the researcher's professional peers and the research supervisor and then tested on a small pilot sample of respondents with similar characteristics as the study respondents. The pilot sample consisted of 8 management staffs from the same selected hotels. The pilot group was done through random sampling. Mugenda and Mugenda (2003) suggest that the piloting sample should be 1 to 10% of study sample depending on the study sample size. Piloting helped in revealing questions that could be vague which allows for their review until they convey the same meaning to all the subjects (Mugenda & Mugenda, 2003).

3.5.2 Validity of the Instrument

Validity is the quality of a data gathering instrument that enables it to measure what it is supposed to measure. Creswell (2008) notes that validity is about whether one can draw meaningful and useful inferences from scores on the instrument. To ensure content validity, the instruments was reviewed by the research supervisors and other research experts. Content validity yields a logical judgment as to whether the instrument covers what it is supposed to cover. Content validity ensures that all respondents understand the items on the questionnaire similarly to avoid misunderstanding. Response options was provided for most of the questions to ensure that the answers given are in line with the research questions they are meant to measure.

3.5.3 Reliability of the Instrument

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trial. Reliability answers the question "are scores stable over time when the instrument is administered a second time" (Creswell, 2003). To

ensure reliability, the researcher will use split-half technique to calculate reliability coefficient (Spearman-Brown coefficient formulae below) which should be within the recommended reliability coefficient of 0.7-1 (Nachmias & Nachmias 1996). This will involve scoring two-halves of the tests separately for each person and then calculating a correlation coefficient for the two sets of scores. The responses will be split into the odd numbers for one set and the even numbers for the other set of items.

3.6 Data Collection Procedure

After consent was given by the University of Nairobi to collect data, the researcher coordinated data collection process after seeking permission from concerned authorities. The researcher engaged three research assistants who assisted in data collection. The research assistants were taken through training to clearly understand the research instruments, purpose of the study and ethics of research. The researcher and research assistants administered the questionnaires to the respondents face to face.

3.7 Data Analysis Techniques

Data will be cleaned, coded, entered and analyzed using Statistical Package for Social Science (SPSS, Version 21.0). SPSS was used because it is fast and flexible and provides more accurate analysis resulting in dependable conclusions. Technically speaking, data processing implies editing, classification, coding, and tabulation of collected data so that they are amenable to analysis (Kothari, 2007). Data analysis involves computation of certain measures along with searching for patterns of relationships that exist between the dependent variable and independent variables. The data was analyzed according to variables and objectives of the study. Descriptive statistics was used to analyze, present and interpret data. Descriptive analysis involved use of frequency distribution tables and cross tabulation which was used to generate values between dependent and independent variables used in the study. Content analysis was used for the qualitative data from the interview guide and the open ended questions in the questionnaire. In addition, the researcher used multiple regression analysis to establish the strength of the relationship between the dependent and independent variables.

The regression equation is:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \alpha$$

Where: Y is the dependent variable (Adoption of ICT in management of hotels),

β_0 is the regression coefficient/constant/ Y -intercept,

$\beta_1, \beta_2, \beta_3$ and β_4 are the slopes of the regression equation,

X_1 is the Staff literacy

X_2 is the Information system characteristics,

X_3 is the ICT adoption on quality of customer's service

X_4 is the influence of online marketing on management

α is an error term normally distributed about a mean of 0 and for purpose of computation, the α is assumed to be 0.

3.8 Ethical Considerations

While conducting the study, the researcher ensured that research ethics were observed. Participation in the study was voluntary. Privacy and confidentiality was observed. The objectives of the study were explained to the respondents with an assurance that the data provided will be used for academic purpose only.

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter focused on the data analysis, interpretation and presentation of the findings. The main purpose of this research was to examine factors influencing adoption of information communications technology in management of hotels with focus to five star hotels in Nairobi County, Kenya. The study also sought to establish whether staff literacy, external pressure and online marketing influencing adoption of information communications technology in management of hotels. The researcher made use of frequency tables, percentages, mean and standard deviation to present data.

4.2 Questionnaire Return Rate

The study targeted a sample of 97 respondents on collecting data on factors influencing adoption of information communications technology in management of hotels with focus to five star hotels in Nairobi County. The questionnaire return rate results are shown in Table 4.1. From the study, out of 97 questionnaires distributed 69 respondents completely filled in and returned the questionnaires, this represented a 71% response rate. This is a reliable response rate for data analysis. Mugenda & Mugenda (2003) pointed that for generalization a response rate of 50% is adequate for analysis and reporting, 60% is good and a response rate of 70% and over is excellent. However, 29% of the respondent were reluctant to responded to fill the questionnaire this was due to reasons like, the respondent were not available to fill them in at the required time and even after persistence follow-ups there were no positive responses from them.

Table 4.1 Questionnaire Response Rate

	Frequency	Percentage
Responded	69	71
Non response	28	29
Total	97	100

4.3 Demographic Characterization of the Respondents

As part of the general information, the research requested the respondents to indicate the department of working, position held, duration of working in the organization, highest level of education qualification and adoption of ICT in Hotel management system. The study found it crucial to ascertain the said information since it configured the charitable trust under which the study can fairly entrance the applicable information. The analysis relied on this information of the respondents to categorize the different results according to their acquaintance and responses.

4.3.1 Department that Respondents Work in

Table 4.2 indicates the category of the interviewed respondents. From the findings most (57%) of the respondents were customers, 17% were staff working in the public relations department, 15% were working in ICT department while 12% of the staff were working at HR department. This implies that all departments that were targeted by the study were involved and that the findings are not biased.

Table 4.2 Category of the Respondents

	Frequency	Percentage
ICT	10	15
HRM	8	12
PR	12	17
Customers	39	57
Total	69	100

4.3.2 Position Held by the Respondents

The study aimed to investigate position held by the respondents within their department. From the findings (24%) of the respondents were supervisors, 23% were departmental heads, 21% were unit team leaders, 18% were technical personnel while 15% were managers. This depicts that all participant of the study were under the level at which the study targeted as stipulated in previous chapter.

Table 4.3 Position Held by the respondents

	Frequency	Percentage
Manager	10	15
Departmental Head	16	23
Technical Personnel	12	18
Team Leader	14	21
Supervisor	17	24
Total	69	100

4.3.3 Respondents working Duration in Years

Table 4.4 illustrates working period in years of the respondents in their respective organization. From the findings majority (53%) of the respondents had worked in the organization for a period of 6-10 years, 36% had worked for a period of 1-5 years, 7% had worked for a more than 16 years while the rest (5%) had served in the organization for a period of 10-15 years. This implies that most of the respondents of this study had worked for a longer period within the organization thus conversant enough of the information that the study sought pertaining to factors influencing adoption of ICT.

Table 4.4 Respondents working Duration in Years

Period of Service	Frequency	Percentage
1- 5 Years	24	36
6 – 10 Years	37	53
10 – 15 Years	3	5
Above 16 Years	4	7
Total	69	100

4.3.4 Education Level of the Respondents

The study was also to determine the highest level of the academic qualification that the respondent held. Table 4.5 shows the findings of the result, most (47%) of the respondents were graduate, 30% were post graduate (masters holder) while the rest (23%) had diploma as their highest level of education. This depicted that most of the respondents interviewed were well knowledgeable to understand and able to respond to the questionnaire in the manner intended.

Table 4.5 Education Level of the Respondents

Level	Frequency	Percentage
Diploma	16	23
Graduate	32	47
Post graduate	21	30
Total	69	100

4.3.5 Adoption of ICT in Hotel Management

The study further requested respondents to indicate whether their organizations have embraced ICT in their management process. All (100%) respondents indicated that their organization have adopted ICT in hotel management.

4.4 Staff Literacy and adoption of ICT

4.4.1 Influence of Staff Literacy on adoption of ICT

Further, the study requested the respondents to indicate whether staff literacy influence adoption of ICT in their organization. From the findings, majority (79%) of the respondents were of the opinion that staff literacy influence adoption of ICT in their organization while the rest (21%) of the respondents opined that staff literacy does not influence adoption of ICT.

Table 4.6 Influence of staff literacy on adoption of ICT

	Frequency	Percent
Yes	55	79
No	14	21
Total	69	100

4.4.2 Influence of Staff Literacy on Adoption of ICT

Table 4.9 illustrates the finding of the study on the respondent level of agreement on aspects related to influence of staff literacy on ICT adoption. From the findings, most of the respondents agreed lack of knowledge on how to use technology and low computer literacy are factors that affect the adoption of ICT as shown by mean score of 4.01. Respondents also agreed that in order to facilitate the successful implementation of ICT our organizations provides employees with computer education and training courses and that ICT acceptance among users of ICT who form part of a firm employee" s base have imposed positive impacts on IT adoption as

depicted by mean score of 3.77 and 3.71 respectively. Management is reluctant to invest on training their employees on ICT since they fear that employees will leave and find employment in large companies that offer better salaries and that staff experience skill deficiencies in our organization which include technical abilities but also management skills as depicted by mean score of 3.67 and 3.64 respectively. Likewise, respondents agreed that inability to acquire skill and expertise in new technologies, and lack of training and education form significant barriers to the adoption of information systems, existence of IT personnel in our organization has helped to react to changes as well as providing necessary connectivity and modularity that enable rapid organizational response to changes and that organizations is lacking specialized staff with ICT knowledge and technical skills as illustrated by mean score of 3.56, 3.54 and 3.52 respectively. Respondent were neutral that low levels of IT literacy in the hotel industry is the major factor that hinders efficient utilization of ICT in our organization as shown by mean score of 3.18.

Table 4.7 Influence of Staff Literacy on ICT Adoption

Influence of Staff Literacy on ICT Adoption	Mean	STDev
Our organizations is lacking specialized staff with ICT knowledge and technical skills	3.52	1.168
In order to facilitate the successful implementation of ICT our organizations provides employees with computer education and training courses.	3.77	1.297
ICT acceptance among users of ICT who form part of a firm employee" s base have imposed positive impacts on IT adoption	3.71	1.198
Lack of knowledge on how to use technology and low computer literacy are factors that affect the adoption of ICT	4.01	0.196
We experience skill deficiencies in our organization which include technical abilities but also management skills	3.64	1.284
Management is reluctant to invest on training their employees on ICT since they fear that employees will leave and find employment in large companies that offer better salaries	3.67	1.131
Inability to acquire skill and expertise in new technologies, and lack of training and education form significant barriers to the	3.56	0.913

adoption of Information systems

Low levels of IT literacy in the hotel industry is the major factor that hinders efficient utilization of ICT in our organization 3.18 0.948

Existence of IT personnel in our organization has helped to react to changes as well as providing necessary connectivity and modularity that enable rapid organizational response to changes. 3.54 1.25

4.4.3 Extent that Staff Literacy Influence Adoption of ICT

Further, the study requested the respondents to indicate the extent to which staff literacy influence adoption of ICT. From the findings, 42% of the respondents opined that staff literacy influence adoption of ICT to very great extent, 31% were of the opinion that staff literacy influence adoption of ICT to a moderate extent, 15% to a great extent, 7% to a low extent while a similar numbers purported that staff literacy influence adoption of ICT to a very low extent.

Table 4.8 Extent that Staff Literacy Influence Adoption of ICT

	Frequency	Percent
Very low extent	4	7
Low extent	4	7
Moderate extent	21	31
Great extent	10	15
Very great extent	29	42
Total	69	100

4.5 External Pressure and adoption of ICT

4.5.1 External Pressure and Adoption of ICT Hotel Management

Further the study requested the respondents to indicate whether external pressure influence adoption of ICT in hotel management. From the findings, majority (79%) of the respondents were of the opinion that external pressure influence adoption of ICT in hotel management while the rest (21%) of the respondents opined that external pressure influence adoption of ICT in hotel management.

Table 4.9 External Pressure and Adoption of ICT Hotel Management

	Frequency	Percent
Yes	55	79
No	14	21
Total	69	100

4.5.2 Aspects of External Pressure on Adoption of ICT in Hotels Management

Table 4.7 illustrates the finding of the study on the respondent level of agreement. From the findings, most of the respondent agreed that CEO characteristics for adoption of information technology in organizations explained that competition increases the likelihood of innovation adoption where competition in hospitality sector leads to environmental uncertainty and increases both the need for of ICT adoption when either firm" s competitors, suppliers or customers adopts IT as well resulting to pressure to the organization that adopt a similar information system as illustrated by mean score of 4.55, 4.52 and 4.45 respectively. Also respondents agreed that hotels that increased external pressure in the marketplace has a major force propelling companies to adopt and utilize ICT and that adoption of ICT has created competitive advantage by giving our business new ways to outperform our rivals as illustrated by mean score of 4.26 and 4.23 respectively. Further respondent agreed that increased external pressure in the marketplace has been a major force propelling companies to adopt and utilized various kind of IT and that demands from potential customers to possess an innovation have impacts organization to adopt IT as illustrated by mean score of 3.89 and 3.63 respectively. On the other hand, respondent pointed that organization that has adopted ICT in reaction to an external demand, which has resulted to environmental opportunity as depicted by mean score of 3.16.

Table 4.10 Aspects of External Pressure on ICT Adoption in Hotels Management

	Mean	STDev
If a firm" s competitors, suppliers or customers adopts IT this results in pressure to our organization to adopt a similar IS	4.45	0.862
Increased external pressure in the marketplace has been a major force propelling companies to adopt and utilized various kind of IT	3.89	1.01
Increased external pressure in the marketplace has a major force	4.26	0.723

propelling companies to adopt and utilize ICT		
The demands from potential customers to possess an innovation have impacted our organization to adopt IT	3.63	1.321
CEO Characteristics for adoption of information technology in organizations explained that competition increases the likelihood of innovation adoption	4.55	0.67
Competition in hospitality sector leads to environmental uncertainty and increases both the need for and the rate of ICT Adoption	4.52	0.646
Adoption of ICT has created competitive advantage by giving our business new ways to outperform our rivals	4.23	0.777
Our organization adopted ICT to in reaction to an external demand which has resulted to environmental opportunity	3.16	1.244
Strong commitment from the executives ensure the deployment of adequate financial and human resources as well as the careful implementation of the HIS adoption plan	4.16	1.043

4.5.3 Extent that External Pressure influence ICT Adoption in Hotels Management

Table 4.11 shows results of the findings on the extent to which external pressure influence ICT adoption in hotels management. From the findings, majority (58%) of the respondents were of the opinion that external pressure influence ICT adoption in hotels management to a great extent, 23% purported that external pressure influence ICT adoption in hotels management to a very great extent while 19% alleged that external pressure influence ICT adoption in hotels management to a moderate extent.

Table 4.11 Extent that External Pressure influence ICT Adoption in Hotels Management

	Frequency	Percent
Great extent	40	58
Very great extent	16	23
Moderate extent	13	19
Total	69	100

4.6 Online Marketing and adoption of ICT

4.6.1 Influence of online marketing on ICT Adoption

Table 4.12 summarizes the study findings, on whether online marketing influence ICT adoption. From the findings, 69% of the respondents indicated that online marketing influence ICT adoption while the rest (31%) opined that online marketing does not influence ICT adoption.

Table 4.12 Influence of online marketing on ICT Adoption

	Frequency	Percent
Yes	48	69
No	21	31
Total	69	100

4.6.2 Aspects of Online Marketing on ICT Adoption

The study requested the respondent to indicate their level of agreement on the statement relating to influence of online marketing on ICT Adoption. From the findings most of the respondents strongly agreed that internet marketing by their hotel has positive impact on hotel operation, organization have a well-designed website that acts as a platform for marketing and advertising, which potentially improves competitiveness in the marketplace and that ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis as depicted by mean score of 4.87, 4.82, 4.77 and 4.61, respectively. Additionally, respondents" agreed that organization adopted ICT as innovative marketing tool in offering travel information and online transactions, use of website content allows our organization to engage customers" interest and participation, to capture information about their preferences, and to use that information to provide personalized services, and that rapid development and commercialization of Information and Communication Technologies (ICTs) for the travel and tourism industry has prompted influence adoption of ICT as shown by mean score of 4.58, 4.53 and 4.37 respectively. Finally respondents agreed that use website to offer information online, the possibility of establishing communications and exchange of information and the conducting of transactions online and a well designed hotel websites with useful information can

help increase sales volume and improve the reputation of a hotel as shown by mean score of 4.24 in each case.

Table 4.13 Aspects of Online Marketing on ICT Adoption

	Mean	STDev
Our organization adopted ICT as innovative marketing tool in offering travel information and online transactions	4.58	0.615
We adopted ICT as a means of promoting and distributing tourism Services	3.79	0.926
We have a well-designed website that acts as a platform for marketing and advertising, which potentially improves competitiveness in the marketplace	4.82	0.497
We use website to offer information online, the possibility of establishing communications and exchange of information and the conducting of transactions online	4.24	0.74
Internet marketing by our hotel has positive impact on hotel operation	4.87	0.338
Use of website content allows our organization to engage customers" interest and participation, to capture information about their preferences, and to use that information to provide personalized services	4.53	0.804
Well designed hotel websites with useful information can help increase sales volume and improve the reputation of a hotel	4.24	1.066
The rapid development and commercialization of Information and Communication Technologies (ICTs) for the travel and tourism industry has prompted our organization to increasingly adopt these technologies	4.37	0.633
The ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis.	4.61	0.583

4.6.3 Extent that Online Marketing influence ICT Adoption

Table 4.14 shows results of the findings on the extent to which online marketing influence ICT adoption. From the findings, majority (58%) of the respondents were of

the opinion that online marketing influence ICT adoption to a great extent, 23% purported that online marketing influence ICT adoption to a very great extent while 19% alleged that online marketing influence ICT adoption to a moderate extent.

Table 4.14 Extent that Online Marketing influence ICT Adoption

	Frequency	Percent
Great extent	40	58
Very great extent	16	23
Moderate extent	13	19
Total	69	100

4.7 Inferential Statistic

To establish the relationship between the independent variables and the dependent variable the study conducted inferential analysis which involved coefficient of correlation, coefficient of determination and multiple regression analysis.

4.7.1 Coefficient of Correlation

In trying to show the relationship between the study variables and their findings, the study used the Karl Pearson" s coefficient of correlation (r). According to the findings as indicated in table 4.15, it was clear that there was a positive correlation between adoption of ICT and staff literacy as shown by a correlation value of 0.521, it was also clear that there was a positive correlation between adoption of ICT and external pressure with a correlation value of 0.618, there was also a positive correlation between adoption of ICT and online marketing with a correlation value of 0.587. This shows that there was a positive correlation between adoption of ICT and staff literacy, external pressure, and online marketing.

Table 4.15 Coefficient of Correlation

Variables		Adoption of ICT	Staff Literacy	ExternalPressure	Onlinemarketing
Adoption of ICT	Pearson Correlation	1			
	Sig. (2-tailed)				
Staff Literacy	Pearson Correlation	.5210	1		

	Sig. (2-tailed)	.0032			
External Pressure	Pearson Correlation	.6180	.3421	1	
	Sig. (2-tailed)	.0021	.0014		
Online marketing	Pearson Correlation	.5870	.1240	.0621	1
	Sig. (2-tailed)	.0043	.0120	.0043	

4.7.2 Coefficient of Determination

The coefficient of determination was carried out to measure how well the statistical model was likely to predict future outcomes. The coefficient of determination, (r^2) is the square of the sample correlation coefficient between outcomes and predicted values. As such it explains the contribution of the three independent variables (staff literacy, external pressure, and online marketing) to the dependent variable. Of the three independent variables that were studied, they contribute 55.1% of ICT adoption as represented by the adjusted (r^2) as shown on table 4.16. This therefore means that other factors not studied in this research contribute 44.9% of ICT adoption in hotel management practices. Therefore, further research should be conducted to investigate the other factors not under the study but also determines ICT adoption in hotel management practices.

Table 4.16 Model Summary

Model	r	r^2	Adjusted r^2	Std. Error of the Estimate
1	0.742	0.551	0.641	0.0438

4.7.3 Multiple Regression

The researcher further conducted a multiple regression analysis so as to identify the factors influencing ICT adoption in hotel management practices. The main purpose of multiple regressions is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. The researcher applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study. As per the SPSS generated table 4.17, the equation

($Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$) becomes:

$$Y = 1.279 + 0.510 X_1 + 0.613 X_2 + 0.525 X_3$$

The regression equation above has established that taking all factors into account (staff literacy, external pressure, and online marketing) constant at zero, ICT adoption in hotel management will be 1.279. The findings presented also shows that taking all other independent variables at zero, a unit increase in staff literacy will lead to a 0.510 increase in ICT adoption in hotel management; a unit increase in external pressure will lead to a 0.613 increase in ICT adoption in hotel management and a unit increase in online marketing will lead to a 0.525 increase in ICT adoption in hotel management as shown in table 4.17. This infers that external pressure determine ICT adoption in hotel management to a great extent followed by online marketing then staff literacy.

Table 4.17 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
Constant/Y Intercept	1.279	1.316		1.451	0.357
Staff Literacy	0.510	0.310	0.172	4.242	0.028
External Pressure	0.613	0.322	0.067	3.452	0.020
Online marketing	0.525	0.156	0.210	3.382	0.029

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the findings, the conclusions and recommendations of the study based on the objectives of the study. The chapter finally presents the suggestions for further studies.

5.2 Summary of the Findings

On staff literacy, the study established that staff literacy influence adoption of ICT in their organization as indicated by 79% of the respondents. The study also established that lack of knowledge on how to use technology and low computer literacy are factors that affect the adoption of ICT as shown by mean score of 4.01. Additionally, the study noted that in order to facilitate the successful implementation of ICT our organizations provides employees with computer education and training courses and that ICT acceptance among users of ICT who form part of a firm employee" s base have imposed positive impacts on IT adoption as depicted by mean score of 3.77 and 3.71 respectively. Likewise, Management is reluctant to invest on training their employees on ICT since they fear that employees will leave and find employment in large companies that offer better salaries and that staff experience skill deficiencies in our organization which include technical abilities but also management skills as depicted by mean score of 3.67 and 3.64 respectively. Staff literacy influence adoption of ICT to very great extent as depicted by 42% of the respondents.

On external pressure, the study established that external pressure influence adoption of ICT in hotel management as depicted by 79% of interviewed respondents. On the same, the study noted that CEO characteristics for adoption of information technology in organizations explained that competition increases the likelihood of innovation adoption where competition in hospitality sector leads to environmental uncertainty and increases both the need for of ICT adoption when either firm" s competitors, suppliers or customers adopts IT as well resulting to pressure to the organization that adopt a similar information system as illustrated by mean score of 4.55, 4.52 and 4.45 respectively. Likewise the study revealed that firm that increased external pressure in

the marketplace has a major force propelling companies to adopt and utilize ICT and that adoption of ICT has created competitive advantage by giving our business new ways to outperform our rivals as illustrated by mean score of 4.26 and 4.23 respectively. Additionally, the survey revealed that external pressure influence ICT adoption in hotels management to great extent as indicated by 58% of the respondents.

To online marketing, the study noted that online marketing influence ICT adoption as pointed by 69 of the interviewed respondents. Further, the study revealed that internet marketing by their hotel has positive impact on hotel operation, organization have a well-designed website that acts as a platform for marketing and advertising, which potentially improves competitiveness in the marketplace and that ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis as depicted by mean score of 4.87, 4.82, 4.77 and 4.61, respectively. On the same the study revealed that online marketing influence ICT adoption influence to a very great extent.

5.3 Conclusions

The study set out to establish the factors influencing adoption of information communications technology in management of hotels with focus to five star hotels in Nairobi County. The study also concluded that lack of knowledge on how to use technology and low computer literacy are factors that affect the adoption. Additionally, the study noted that in order to facilitate the successful implementation of ICT our organizations provides employees with computer education and training courses and that ICT acceptance among users of ICT who form part of a firm employee" s base have imposed positive impacts on IT adoption. Management is reluctant to invest on training their employees on ICT since they fear that employees will leave and find employment in large companies that offer better salaries and that staff experience skill deficiencies in our organization which include technical abilities but also management skills.

To the objective of external pressure, the study concluded that external pressure influence adoption of ICT in hotel management. On the same, the study concluded that CEO characteristics for adoption of information technology in organizations

explained that competition increases the likelihood of innovation adoption where competition in hospitality sector leads to environmental uncertainty and increases both the need for of ICT adoption when either firm" s competitors, suppliers or customers adopts IT as well resulting to pressure to the organization that adopt a similar information system. Likewise, the study concluded that firm that increased external pressure in the marketplace has a major force propelling companies to adopt and utilize ICT and that adoption of ICT has created competitive advantage by giving our business new ways to outperform our rivals as illustrated by mean score of 4.26 and 4.23 respectively. Additionally, the survey revealed that external pressure influence ICT adoption in hotels management to great extent as indicated by 58% of the respondents.

On online marketing, the study concluded that online marketing influence ICT adoption as pointed by 69 of the interviewed respondents. Further, the study established that internet marketing by their hotel has positive impact on hotel operation, organization have a well-designed website that acts as a platform for marketing and advertising, which potentially improves competitiveness in the marketplace and that ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis.

5.4 Recommendations

The study recommended that operational productivity and customer satisfaction both should be considered together by hotel management, as hotels generally do not look only to operational efficiency, but also to the effectiveness of building a long-term customer relationship and to the credibility of the hotel. The hotel industry requires a diverse range of information and lends itself well to the support offered by developing multimedia, communication technologies and information systems .The internet provides an extra ordinary connectivity and the ability to communicate efficiently and effectively with customers at a reasonable cost .Its potential to generate more revenue is not questionable but is acknowledged as something the tourism industry in developing countries need. The implications of the Internet and other growing interactive multimedia platforms for tourism promotion are far reaching and alter the structure of the industry.

Likewise, the study recommended that ICT based products help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis. Hotels should analyses themselves to determine whether they have what it takes to adopt a particular line of ICT. As a manager and the hotel generally, understanding your ability in handling a particular ICT is very important not just for its adoption, but also for ensuring that once adopted, the ICTs are put into practical use. Organizations need to have the relevant resources including staff with skills and expertise in ICT use as well as finances for procuring and maintaining ICT facilities once adopted.

Given the magnitude of finances required in installing some of ICTs for the hotel, the owners and managers of a given hotel must avail the necessary financial resources for not only procuring the ICT facilities but for the continued sustenance of the facilities once adopted. Organizations need finances for training your existing staff on newly adopted ICTs. Managers should critically examine technology issue that hotel should address before adopting any technology.

5.5 Areas of Further study

The study suggests that further research to be done on the other successful factors influencing adoption of ICT in the organization operation. The study also suggests that further study be done on the impacts of ICT on the organization performance in other sectors rather than service sector in order to depict clear and reliable result that exposes both negative and positive aspect ICT impact on the organization performance.

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APPENDIX I: LETTER OF INTRODUCTION

Dear Respondent,

RE: Data Collection on MA Project

I am a Master of Arts student at the University of Nairobi and in my final year of study. As part of the requirement for the award of the degree of Master of Arts in Project Planning and Management, I am undertaking a research project on “**Factors influencing adoption of information communications technology in management of hotels in Kenya: A case of five star hotels in Nairobi County**”. In this regard, I am kindly requesting for your support in terms of time, and by responding to the attached questionnaire. Your accuracy and candid response will be critical in ensuring objective research.

It will not be necessary to write your name on this questionnaire and for your comfort, all information received will be treated in strict confidence. In addition, the findings of the study will surely be used for academic research purposes and to enhance knowledge in the field of hotel.

Thank you for your valuable time on this.

Yours faithfully

Kilali Beatrice Nduku.

L50/75963/14

APPENDIX 1I: QUESTIONNAIRE

Am studying Master of Project Planning and Management program at University of Nairobi and I have designed the following questionnaire about the above topic. Kindly and humbly answer all the questions to the best of your knowledge. Indicate with a tick or filling in the space(s) provided

SECTION A: GENERAL INFORMATION

1) Name of your hotel

2) Kindly indicate your department

Marketing Human Resource

Internal Audit (IT) PR

Others Please specify

3) Which position do you hold in your organization?

Director Manager

Team Leader Departmental Head

Supervisor Technical Personnel

Any other (specify).....

4) How long have you worked in this hotel?

1- 5 years 6 – 10Years

10 – 15Years Above 16Years

5) What is your highest level of education

Certificate Diploma

Graduate Post Graduate

Any other (specify).....

6) Does your organization embrace ICT in its Hotel management system?

Yes No Explain your answer

.....
.....
.....

SECTION B: Factors influencing Adoption of ICT in Hotels Management

Section I: Staff Literacy

1. Do you think Staff Literacy influence adoption of ICT in your organization?
Yes [] No []
2. Indicate your level of agreement to the statement below relating on how staff literacy its influence adoption of ICT in hotels management. Use a scale of 1-5, where 1- strongly disagree, 2- disagree, 3- neutral, 4- agree, 5- strongly agree.

Statement	1	2	3	4	5
Our organizations is lacking specialized staff with ICT knowledge and technical skills					
In order to facilitate the successful implementation of ICT our organizations provides employees with computer education and training courses.					
ICT acceptance among users of ICT who form part of a firm employee" s base have imposed positive impacts on IT adoption					
Lack of knowledge on how to use technology and low computer literacy are factors that affect the adoption of ICT					
We experience skill deficiencies in our organization which include technical abilities but also management skills					
Management is reluctant to invest on training their employees on ICT since they fear that employees will leave and find employment in large companies that offer better salaries					
Inability to acquire skill and expertise in new technologies, and lack of training and education form significant barriers to the adoption of					

Information systems					
low levels of IT literacy in the hotel industry is the major factor that hinders efficient utilization of ICT in our organization					
Existence of IT personnel in our organization has helped to react to changes as well as providing necessary connectivity and modularity that enable rapid organizational response to changes.					

3. To what extent does staff literacy influence adoption of ICT in your hotels in its management practices?

- To a very great extent [] To a great extent []
 To a moderate extent [] To a low extent []
 To a very low extent []

Section III: External Pressure

4. Does external pressure influence adoption of ICT in your hotels in its management practices?

5. Kindly indicate your level of agreement to the statement below relating on how staff literacy its influence adoption of ICT in hotels management. Use a scale of 1-5, where 1- strongly disagree, 2- disagree, 3- neutral, 4- agree, 5- strongly agree.

Statement	1	2	3	4	5
If a firm" s competitors, suppliers or customers IT this results in pressure to our organization to adopt a similar IS					
Various studies have shown that increased external pressure in the marketplace has been a major force propelling companies to adopt and utilized various kind of IT / IS such as e-business (Mohamad, 2009).					
Increased external pressure in the marketplace has a major force propelling companies to adopt and utilize ICT					
The demands from potential customers to possess an innovation have impacted our organization to adopt IT					

CEO Characteristics for adoption of information technology in organizations explained that competition increases the likelihood of innovation adoption					
Competition in hospitality sector leads to environmental uncertainty and increases both the need for and the rate of ICT adoption					
Adoption of ICT has created competitive advantage by giving our business new ways to outperform our rivals					
Our organization adopted ICT to in reaction to an external demand which has resulted to environmental opportunity					
Strong commitment from the executives ensure the deployment of adequate financial and human resources as well as the careful implementation of the HIS adoption plan					

6. To what extent does external pressure(Competitive Pressures, Availability of ICT Services) influence adoption of ICT in your hotels in its management practices?

- To a very great extent [] To a great extent []
 To a moderate extent [] To a low extent []
 To a very low extent []

Section IV: Online marketing

7. Does online marketing influence adoption of ICT in your hotels in its management practices?

8. To what level do the following aspects of online marketing influence ICT adoption in your hotels in its management practices? Use a scale of 1-5, where 1- strongly disagree, 2- disagree, 3- neutral, 4- agree, 5- strongly agree.

	1	2	3	4	5
Our organization adopted ICT as innovative marketing tool in offering travel information and online transactions					
We adopted ICT as a means of promoting and distributing tourism services					
We have a well-designed website that acts as a platform for					

marketing and advertising, which potentially improves competitiveness in the marketplace					
We use website to offer information online, the possibility of establishing communications and exchange of information and the conducting of transactions online					
Internet marketing by our hotel has positive impact on hotel operation					
Use of website content allows our organization to engage customers" interest and participation, to capture information about their preferences, and to use that information to provide personalized services					
Well designed hotel websites with useful information can help increase sales volume and improve the reputation of a hotel					
The rapid development and commercialization of Information and Communication Technologies (ICTs) for the travel and tourism industry has prompted our organization to increasingly adopt these technologies					
The ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis.					

9. To what extent does online marketing influence adoption of ICT in your hotels in its management practices?

- To a very great extent [] To a great extent []
 To a moderate extent [] To a low extent []
 To a very low extent []

10. What would you recommend to be done to enhance adoption of ICT in hospitality sector in Kenya?

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THANKS FOR YOUR PARTICIPATION

