# Assessment of The Level of Adoption of E-commerce by Selected Star-rated Hotels in Nairobi City: A Case of Extended Model of Internet Commerce Adoption

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## ABSTRACT

E-commerce, particularly internet marketing and website design is one of the emerging strategies in creating competitive advantage in the tourism and hospitality industry. The confidence level of using internet among potential travellers has increased drastically and hence hoteliers have to put efforts to develop website that meets the contemporary emerging trends. This paper aims to evaluate the e-commerce adoption by selected hotels in Nairobi City due to rising growth of the hospitality industry in the city. As a result of the Covid 19 pandemic, many businesses resorted to using e-commerce in providing their services to their esteemed clientele. The study is based on the concept of Extended Model of Internet Commerce Adoption (EMICA) in order to compare the website features and performance. A total of 35 hotel websites in Nairobi were examined using leading search engines including- Google, Yahoo Search and MSN. This study established the time and resources efficiency associated to e-commerce in relation to physical correspondence in accessing the hotel services. The study also revealed that hotels in Nairobi lose revenue by providing limited contents on products and services and that a competitor can easily take away the customers online despite property offering more superior products. The study gives reveals how the hospitality industry loose revenue by not offering real-time reservations on their own online platforms. Suggestions are given on the possible ways that hotels can apply to create competitive advantage and have improved revenue. The study also offers recommendations on how tourism and hospitality industry in Nairobi may increase the destination profile online by offering products and services all under one portal instead of transferring potential customers to third party platforms at a booking stage.

**Keywords**: Accommodation, Buying Behavior, Digital Marketing, Online Reviews, Tourism Product

## INTRODUCTION

Tourism and hospitality industry is a dynamic field of the economy. The providers of tourism and hospitality products and services have responsibility to identify the needs and wants of their target market. Today's traveler has become more knowledgeable, have high expectations from the service providers and their needs change considerably, (Ozturk & Hancer, 2014). There is need to avail necessary information required by the customers pertaining to their products, and also make it easy for interested customers to purchase the products and services. With the advancement in information and communication technology, different digital platforms such as e-commerce have emerged for reaching out to target audiences (Gurneet, 2017). E-commerce is defined as the process of buying, selling or exchanging products, services or information via computer networks including internet, (Turban et al, 2015). This study is to apply the Extended Model of Internet Commerce Adoption (eMICA) model designed by Burgess and Cooper (2000), to study websites of various tourism and hospitality players in Nairobi based on online contents. This study

assesses selected hotels based in Nairobi. The eMICA model has been used in many occasions in tourism as well as other sectors of the economy to measure the level of online presence.

Success of any business entails the evaluation of the key four marketing mixes referred to as 4Ps (Product, Price, Place and Promotion). This implies, you need to identify, select and develop products and services which fit the expectations of your customers, sell at an affordable price, then select a distribution channel to reach your target customers and finally develop and implement promotion strategy methods to inform your customers of what you offer. The travel products include air travel, car hire, accommodation and tour services.

E-commerce adoption is essential in proper implementation of the 4Ps strategy even in applying Research and Development of the business. The competition for the online holidays have increased immensely and apart from leading players in the field like expedia.com, booking.com and hotels.com there are plenty more online portals offering travel products, (Turban et al, 2015)

The tourism and hospitality sector needs to have a well detailed marketing strategy in order to attract customers not only domestically but also globally. For a long time the industry has depended on traditional communications methods majorly print (brochures). E-tourism is the digitalization of all the process of the value chains in the tourism, travel, hospitality and catering industries that enable organizations to maximize their efficiency and effectiveness, while enhancing client's satisfaction, (Buhalis & Jun, 2011). Online technologies have had a huge impact on communications and product promotion and distribution in the tourism industry. E-commerce needs to be embraced fully in order to realize any benefits of going digital and it calls for businesses to employ services of IT professionals to design and monitor a detailed website which can suit the current trend. The most important is the website content in terms of information relevant to the potential customers. A good website is one which takes into consideration the consumer behaviour online and capitalizes on that by closing sale. This study will evaluate the different enterprises within the hospitality and tourism industry and their stages within the eMICA model. E-commerce brings global opportunities at every business doorstep. E-commerce allows instant access to more information and opportunities due to its global accessibility, (Said & Azizan, 2013). In today's business arena, the performance of any organization depends majorly on its development on ICT, (Sobihah et al, 2013).

## Problem Statement

E-commerce has a great impact on how a business can manage its affairs profitably. Upon searching of suitable accommodation in Nairobi City, you will find the international Online Travel Agents (OTAs) appearing on first page of your search engine compared to Kenyan hospitality entrepreneurs. This is because the OTAs have invested heavily in online marketing and Search Engine Optimization (SEO). In Kenya, not all organizations in the tourism and hospitality industry have embraced e-commerce and of those using e-commerce not all are up to the expected level of processing stage as per eMICA Model. Failure to fully enhance the presence of the hotels online is costly as the foreign based OTAs end up attracting the attention of the potential customers and secure the bookings. These OTAs deny hotels full revenue as they will demand commission for bringing to your hotel same clients available on same platforms, online source.

## Objectives of Study

- To establish the extent of e-commerce adoption in the hotel industry in Nairobi City.
- To analyze attributes influencing e-commerce adoption by the hotels.
- To compare adopters and non-adopters of complete e-commerce concept within the tourism and hospitality industry.

## LITERATURE REVIEW

E-commerce stands for Electronic Commerce, it is a concept whereby according to Turban et al.,2008 one is able to buy or sell products and services by use of computer networks and internet connections. The use of e-commerce adds value to the management process of the tourism components, (Siaw *et al.,* 2015). The full acceptance of the use of ICT enables an organization to enjoy a competitive advantage in the market. The e-commerce is more pronounced when an organization is able to offer platform for conducting a transaction online. With the increased access to the internet, many travellers prefer to search, compare prices and book holidays online. Therefore, the products and services providers are required to position themselves at the right place online where potential customers may be able to find them. Advances in information technology has also enabled various players in tourism and hospitality industry comfortable trading online, (Chow-Hou Wee) The internet has revolutionized how we share information and communicate with others. Digital marketing is now more common and prevalent especially in the new millennium as people now spend most of their time online as asserted by (Li,2010). Organizations including those in the tourism industry need to adapt and adopt as well as incorporate e-commerce for their marketing to be profoundly effective and efficient. E-commerce has no size restrictions as both small and large tourism businesses can have materials to their own capacity.

The other positive aspect of e-commerce is that an organization can effectively use any device including email, social media platforms, digital television, digital billboards, laptops, desktops, and electronic media such as radio, smartphones, iPad and tablets. Organizations are spoilt for choice with regards to devices and tools that can be used under e-commerce. E-commerce focuses on the customer by providing personalized information and instant response to his or her query thus enhancing relationship marketing as well as customer relationship management. The traditional marketing strategies that have witnessed a decline averaging 20% include direct mail, tradeshows and events, print advertising, radio and television advertising (Caliskan *et al.* 2021). These statistics show that digital marketing is both the present and the future given the continuous information and communication technological advancements that are taking place on a daily basis. Internet use among college and university educated and higher income adults is almost 100%. This trend is also similar among the young people, the next generation of consumers, who spend most of their time online and mostly on social media. Livari et al (2020) supported this argument of your generation and adoption of technology and argue that learning institutions need expose technology access more to young generations. Digital marketing utilizes electronic media to promote products and services. Bist et al. (2022) argue that it is crucial to manage digital marketing platforms in order to gain optimum results.

The tourism sector has adapted effectively to the digital world to increase knowledge of its brands and reach more potential customers, so in the same way that other sectors, the tourism sector and digital marketing go hand in hand.

The evolution of the Internet has made it easier for tourism companies to advertise their travel offerings so that they can reach more potential travelers much more easily than traditional marketing could. The new generation of travelers no longer needs traditional travel agencies to decide where to go and organize their trip, (Kiwop,2020)

Digital marketing is the use of internet enabled media platforms such as Facebook, websites, twitter, WhatsApp, in anticipating, identifying as well as satisfying customer needs profitably. Yasmin, Tansneem & Fatema (2015) noted that digital marketing extends beyond internet marketing to include mobile phone marketing such as SMS and MMS, social media marketing, search engine marketing, display advertising and many other forms of digital media.

According to Yasmin, Tasneem & Fatema (2015) digital marketing "refers to various promotional

techniques deployed to reach customers via digital technologies… embodies an extensive selection of service, product and brand marketing tactics which mainly use Internet as a core promotional medium in addition to mobile and traditional TV and radio".

Atshaya & Rungta (2016) remarked that digital marketing "is one of the most convenient and effective way of marketing these days and with the development in technology, its technique and scope is also developing." Digital and internet marketing are not the same though some scholars use them interchangeably.

Digital marketing uses both online and offline digital technologies and internet marketing uses online technologies. Simply put internet marketing is a subset of digital marketing (Atshaya & Rungta, 2016). Given the boom of apps and their usefulness in smartphones, we are talking about getting a hold of the Millennials and Generation X markets with a remarkable reach, offering advantages for the traveler and the common tourist.

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# METHODOLOGY

According to Law, Qi & Buhalis (2010), the methodological approaches most often used in research measuring tourism websites are; (a) the accounting method, (b) the automatic method, (c) the numerical computation method, (d) the user feedback method and (e) the combined method. This study will use the accounting method.

The study considers that those who browse the websites are potential customers hence the focus is on marketing activities, online transactions and information provided on products and services to motivate consumption, (Alvarez, 2014).

The methodological model used in this study includes both web content analysis using the eMICA) model for the Nairobi hotels. The variables to evaluate the level of adoption of e-commerce on the Nairobi hotels' websites were selected through literature and adapted from eMICA model. Nairobi has been chosen being a leading tourist destination.

## Sampling Procedure

The sampling was taken from Nairobi hotels listed on Kenya Association of Hotel Keepers and Caterers website at (http://www.kahc.co.ke/kahc-members-directory.php). The listing has 45 registered hotels in Nairobi and after removing international hotel brands we remain with 30 independent or local hotels to sample. The international brands were left out as they are owned in countries with advanced technology hence expected to have sophisticated websites. The hotels studied are in table 4 of the appendices.

## Data Collection

Search engines like Google, Yahoo Search and MSN were used to find the corresponding websites of each hotel. Mozilla Firefox and Chrome web browsers using Pentium 4 computer and high-speed internet access. The data collection questionnaire is detailed in table 2 of the appendices.

**Instrument**

The study used questionnaires set up based on the eMICA model which has been created by Burgess & Cooper in order to examine the contents of hotel websites.

**Table 1: The Extended Model of Internet Commerce Adoption (eMICA)**

| EMICA | Examples of functionality |
|---|---|
| **Stage 1 – Promotion**<br><br>Layer 1-Basic information<br><br>Layer 2 – Rich information | Company name, physical address and contact details, area business annual report, e-mail contact, information on company activities |
| **Stage 2 – Provision**<br><br>Layer 1 – low level interactivity<br><br>Layer 2 – medium interactivity | Basic product catalogue, hyperlinks to further information, online enquiry form higher – level product catalogues, customer support (e.g. FAQs , sitemaps0, industry-specific value-added features<br><br>Chat room, discussion forum, multimedia, newsletters or updates by email |
| **Stage 3 – Processing** | Secure online transactions, order status and tracking, interaction with corporate servers and databases. |

*Source: The Extended Model of Internet Commerce Adoption (eMICA) (adapted from Burgess and Cooper , 2000)*

Using the above eMICA model the following functionalities were observed:

For Stage 1- Layer 1, – Company name, physical address, phone number and area of business, all these form the basic information of website which a company needs to have in order to fit into eMICA model.

Stage 1, Layer 2– provides e-mail address, company activities/descriptions, price/special offers, map and area information.

Layer 1 of stage 2- Low connectivity – provides basic catalogue, hyperlinks for more information, online enquiry form. It also contains gallery, news and promotions.

Layer 2 of stage 2; – medium interactivity- higher-level product catalogues including panorama pictures, video, flash-animation and newsletter. Also, customer support and recommendation sites are important. Here we also have social media/guestbook and forum. It also has currency converter, chat rooms and multilingual options.

Stage 3: Processing stage- this is the last stage which all websites should aim to get to. This includes online booking or reservations and online transaction or payments.

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**Results**

| EMICA | Functionality | No. of Websites |
|---|---|---|
| **STAGE 1 – PROMOTION**<br><br>Layer 1-Basic information | Company name, physical address, phone number and area of business | 30 |
| Layer 2 – Rich information | E-mail address | 30 |
| | Company activities/descriptions | 30 |
| | Price/special offers | 26 |
| | Map/Google map | 28 |
| | Area information | 25 |
| **STAGE 2 – PROVISION**<br><br>Layer 1 – low level interactivity | Basic product catalogue-shopping, restaurants/excursions. | 17 |
| | Photo gallery | 30 |
| | Promotions | 11 |
| | Hyperlinks for more information | 5 |
| | Online enquiry form | 19 |
| Layer 2 – medium interactivity<br><br>High interactivity | High level product catalogues- | 10 |
| | Customer support- FAQs, search engines | 4 |
| | Recommendation site | 3 |
| | Currency converter | 0 |
| | Forum//social media/Tripadvisor | 24 |
| | Multi media – video | 4 |
| | Multilingual converter | 5 |
| **STAGE 3 – PROCESSING** | Online reservation | 25 |
| | Online transaction/payments | 19 |

*Source: author*
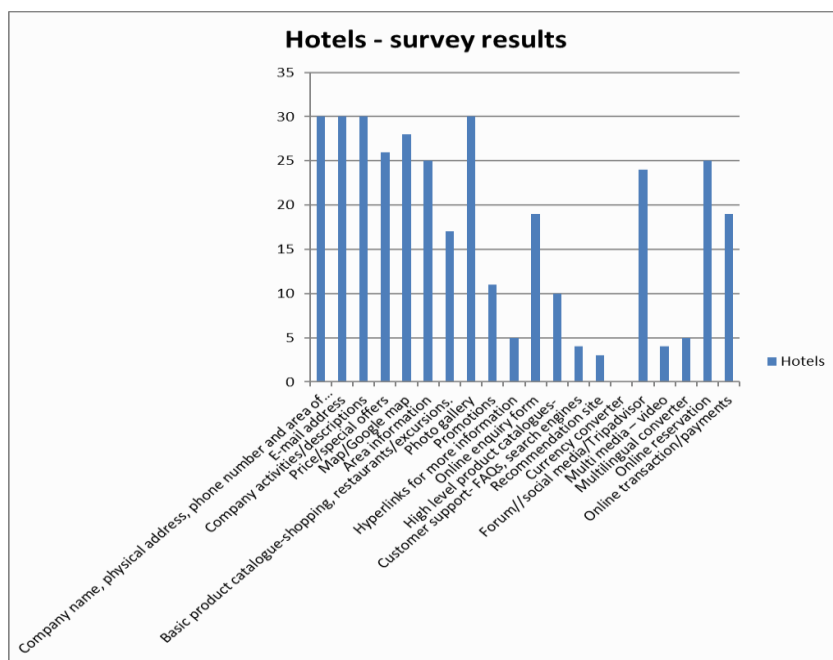
## RESULTS

The outcome of this study is captured in table 3 of the appendices. The study reveals that all websites studied have passed Layer 1 of stage 1 and most of them are pretty well adopted layer 2 of stage 1. From stage 2 to last stage, there is no consistency but again all websites have at least images of their properties or gallery to attract visitors. Layer 2 which offer medium and high interactivity has mixed attention. No website has options for currency converter despite handling foreign travellers even though most prices are in USD. Similarly, most websites are not giving web links to other sites like attractions or where to get extra information. Need to have translations to different languages also captured by only 5 websites same as having video of the hotel products is ideal, only 4 hotels had this facility.

## DISCUSSION

The hotels whose websites have matured have more functions and features, they are well-designed and with advance content analysis. Four and Five-star hotels had better contents than three-star hotels, this could be attributed to availability of resources. The e-commerce concept is being embraced by many hoteliers and investment is put towards the development and maintenance of the websites. The level of eMICA is more at the stage 1 where basic information and this trend changes as you move downwards stage 2 and 3. In the final processing stage, most websites have the system to allow for checking availability and online reservations. Some you can only check availability but not able to allow you to finish transactions online due to luck of payment system in place. Some websites when it comes to stage three they direct you to Online Travel Agents (OTAs) websites like booking.com and agoda.com to make booking. This is because they have no ability to make online transactions. This in doubt is loss of revenue by the hotels as the OTAs will be paid commissions on bookings yet the sales lead has come from the hotel's own website. When it comes to payments, most websites are not offering mobile money transfer/Mpesa or Airtel Money yet this has become a leading payment method in Kenya. Instead, they had credit/debit card payment options.

## CONCLUSIONS

E-commerce is a concept which is here to stay and it is important for any organization serious in business to invest into for the better growth in a competitive environment. Have a well-designed website with up to date contents and one that can enable any visitor to not only get information about your products but also secure booking. This offers real competitive advantage in the market. To promote wider acceptance of e-commerce among the hotel industry in Kenya, the stakeholders especially the government should design policy intervention to reduce the high cost of internet access and to ensure secured network for online transactions (Straume & Johnson, 2010). The e-commerce does not reduce cost of operating hotel business but it aims at bringing efficiency and products and service delivery.

## RECOMMENDATION

The success of e-commerce in the country will need a comprehensive ICT infrastructure. The ongoing fiber internet access in the country should speed up its coverage to various parts of the country. Hotels in Kenya can incorporate Mobile banking – Eazzy Banking, Mpesa, and Airtel Money in their online transaction options in order to give local customers with no credit cards to book online instead of just targeting the foreign markets. Hotels should go digital fully to exploit the potential and re-structuring may be necessary so that specific staff can be assigned to look into website contents and update accordingly. The eMICA model should be used by hoteliers in order to add value to their websites. There should be more recommendation sites to enable customers compare products prior to purchase. The website of KAHC should also be comprehensive to include all hotels in Nairobi for easy access of hotels information in the country.

# REFERENCES

1. Alvarez Y. (2014*): Market orientation in the tourism sector with the use of social web tools, effects on business results*. Doctoral Thesis. University of Cantabria

2. Atshaya S., & Rungta S. (2016). Digital marketing vs internet marketing: A detailed study. *International Journal of Novel Research in Marketing Management and Economics*, *3*(1), 29-33.

3. Bist A. S., Agarwal V., Aini Q., & Khofifah N. (2022). Managing Digital Transformation in Marketing:" Fusion of Traditional Marketing and Digital Marketing". *International Transactions on Artificial Intelligence*, *1*(1), 18-27.

4. Buhalis D. and Jun, S. (2011): E-Tourism, Published by Good fellow Publishers Limited, Woodeaton, Oxford

5. Burgess L. Cooper, J. Alcock, C and Uppala, P (2003): " *A Longitudinal Study of the Use of the Web by Regional Tourism Organizations in the Asia Pacific Region*" ACIS 2004 Hobart, Tasmania 1-3 December

6. Burgess L and Cooper J,. (2000): Extending the viability of MICA (Model of Internet Commerce Adoption) as a metric for explaining the process of business adoption of internet commerce. *Paper presented at the international Conference on telecommunication and Electronic Commerce, Dallas, November*

7. Caliskan A., Özkan Özen Y. D., & Ozturkoglu Y. (2021). Digital transformation of traditional marketing business model in new industry era. *Journal of Enterprise Information Management*, *34*(4), 1252-1273.

8. Chaffey D., & Ellis-Chadwick F. (2019). *Digital marketing*. Pearson UK.

9. Gurneet K. (2017): 'The Importance of Digital Marketing in the Tourism Industry'. *International Journal of Research – Granthaalayah*, 5(6), 72-77

10. Law R., Qi S., and Buhalis D. (2010): Progress in tourism management: A review of website evaluation in tourism research. *Tourism Management*, *31*(3), 297—313.

11. Li C.(2010): "Groundswell. Winning in a World Transformed by Social Technologies' *Strategic Direction*, Vol. 26 No. https://doi.org/10.1108/sd.2010.05626hae.002

12. Iivari N., Sharma S., & Ventä-Olkkonen L. (2020). Digital transformation of everyday life–How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International journal of information management*, *55*, 102183.

13. Kenya Association of Hotel Keepers & Caterers: http://www.kahc.co.ke/kahc-members-directory.php accessed on 04/10/2023

14. A. Hancer. M. & Im. J. (2014): Job Characteristics, Job Satisfaction, and Organizational Commitment for Hotel Workers in Turkey, *Journal of Hospitality Marketing & Managemen*t, 23:3, 294-313, DOI: 10.1080/19368623.2013.796866

15. M. Azizan N. (2013): Factors affecting E-commerce Adoption among Hotel industry in Libya. Proceeding of the International Conference on Social Science Research, ICSSR 2013 (e-ISBN 978-967- 11768-1-8). 4-5 June 2013, Penang, MALAYSIA. Organized by WorldConferences.net 1341

16. LO. Ansah GO, & Adjei D.: E-Commerce: An Opportunity For Hospitality Industry Growth. Case Study Of Hotels In Accra. *Research journali's Journal of Hospitality Tourism* Vol. 2 | No. 1 January | 2015

17. A. Embat, A. Amin, W. & Muda M. (2013)The Relationship between E-Commerce Adoption and Organization Performance. *International Journal of Business and Management*; Vol. 9, No. 1; 2014 ISSN 1833-3850 E-ISSN 1833-8119. Canadian Center of Science and Education

18. Straume M., & Johnson M. L. (2010): *Analysis of residuals: Criteria for determining Goodness-of-fit*. Essential Numerical Computer Methods, 37.

19. Turban E., King D., Lee J, Liang T & Turban D. (2015*): Electronic Commerce: A Managerial and Social Networks Perspective. 8$^{th}$ Editio* NY: Springler International

20. Yasmin A., Tasneem S., & Fatema K. (2015). Effectiveness of digital marketing in the challenging age: An empirical study. *International journal of management science and business administration*, *1* (5), 69-80.