Challenges of E-commerce Adoption in the Ghanaian Hotel Industry

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Abstract
Electronic-commerce has become an important channel for conducting business. Researchers as well as market executives are trying to better understand online consumer behavior. The internet offers customers, businesses among others, inexpensive and convenient way of conducting online business. Vigorous, consistent, trusted and efficient e-commerce systems have become very essential to the development of all major economies especially a developing country like Ghana. To remain relevant in today’s global competitiveness, developing countries (Ghana) must adopt a safe and reliable electronic commerce system which will serve as the backbone for economic development. In the process of e-commerce adoption, encouraging the acceptance of consumers becomes a crucial factor. The main rationale of this study is to investigate the challenges of e-commerce adoption in the hotel industry from the consumers’ perspective in Ghana. Many studies and models have inspired technology and information systems research. Factors that retard consumers’ predisposition or decision to adopt have been well captured. However, studies on e-commerce adoption in the hotel industry are not so evident in Africa especially Ghana. In particular, this study applied the theory of technology acceptance model (TAM) to explore customers’ adoption of an e-commerce technology in Ghana. The proposed model in the context of this study was tested quantitatively. In order to underscore the causal effects of the independent variables on the dependent variable (e-commerce adoption), a structural equation modelling was employed to analyse the data. Data was collected and analyzed from a representative sample size of 300 respondents selected across the capital of Ghana. A survey questionnaire type was administered to users of hotel related self-service systems (hotel check-in, in –room video viewing, video gaming on demand, hotel booking, and hotel reservation) in Ghana. Respondents were made to answer closed-ended questions constructed in accordance to, technology acceptance model and other prior attempts to establish similar relationship in the existing empirical literature on e-commerce adoption. In summary, this study makes significant contribution to theory with respect to exploring challenges affecting e-commerce adoption by consumers in Ghana. Additionally, this study makes contribution to theory in e-commerce adoption literature in Ghana. It also provides a socially constructed view of the antecedents of e-commerce adoption in a developing country context. Strategies for improving e-commerce development in Ghana are presented in addition to the managerial implications of the research finding.

General Terms: E-Commerce, Hotel Industry

Keywords: Adoption, E-Commerce, Hotel Industry.

DOI: 10.7176/EJBM/11-27-14

Publication date: September 30th 2019

1. INTRODUCTION
The hotel business is recognized to have a significant impact in the advancement of tourism sector globally (Kankam, 2015). Thus it is not shocking that Ghana is now enjoying explosion of intercontinental hotel chains, small independent hotels from the bulk of the hotel stock (Akyeampong, 2007; Mensah, 2009).

Accra the national capital of Ghana is tremendously experiencing an upsurge in the number of hotels being built-up to cater for international arrivals (Kankam, 2015). Between 2004 and 2008, international arrivals rose from 583,821 to 698,069 (Ghana Tourist Board, 2010). WTTC (2014) reports that 1,087,000 tourists visited Ghana in 2013. In 2008, the hotel stock surged from 1,295 to 1,595 in the Greater Accra which represent a growth rate of 23.2% (Ghana Tourist Board, 2008). In this dynamic current business arena where modern hotel chains compete, the overarching aim of any business setup is to focus on enhancing service quality delivery to customers, and improve business processes (Milovic, 2012).

In the current business environment firms need to create new ways to make their business practices more flexible to sidestep being positioned at a competitive disadvantage (Ahmad, Abu Bakar, Faziharudean, & Mohamad Zaki, 2015). Thus, for firms to compete effectively in the current business environment, they need to up their game to meet the needs and expectations of their target audiences (Al-Dmour, & Al-Surkhi, 2012). Internet is now known to be ground breaking development in the last decade in terms of conducting business activities and new waves for transaction because of its prospects to firms, notably the hotel industry in areas such
as low cost of doing business, streamlining of business activities, very efficient in terms of market reach, better working effectiveness, access to new customers, supplier contacts and trading partners, creation of new ways of selling existing products and greater competitive advantage (Standing, Standing, & Love, 2010).

Internet is a significant technology which has no limitation and its making the role of marketing and sales transaction for people in the business world. By means of Internet, people have the prospect to transact business globally, attract new customers and lower cost. E-commerce has transformed into digital commerce as it clinches the developing mobile and social networks. Therefore, e-commerce is not just a web-based selling method; it is a dynamic enterprise for firms in order to stay alive in today’s digital world. For gaining a major role from this initiative, both academic and business world are trying to fully understand the dynamics of adoption of e-commerce by customers.

2.0 Literature Review
This Section analyses relevant literature relating to the subject matter. Initially, the development of e-business and e-commerce concepts are reviewed. Then, the next review explains e-commerce adoption and finally a brief description of the hotel industry in Ghana is also presented.

2.1 E-Commerce and E-Business Evolution.
The use of electronic commerce (e-commerce) in business transactions, now a priority for many firms, is attracting increasing attention (Hua et al, 2015). As the world economy integrates and reduces its trade barriers, some of the greatest opportunities for small businesses will derive from their ability to participate in regional and international markets (Mutula and Brakel, 2006). Turban et al. (2018) defined e-commerce as the process of selling, buying, transferring, or exchanging products, services, and/or information through the Internet. They distinguished between Internet and non-Internet e-commerce, whereby the latter involves buying and paying for services or products using such methods as the smart card through vending machines or transactions via networks such as local area networks (LANs). Huy and Filiatrault (2006) claimed that e-commerce is any economic or business activity that uses ICT applications to enable the buying and selling of products and services, facilitating business transactions between and among businesses, individuals, governments, and other organizations (Rahayu, et al 2017). Scholars such as Simpson and Docherty (2004) defined e-commerce as the use of the Internet for buying and selling activities such as advertising, negotiations, and contracts.

We could integrate these diverse conceptions of e-commerce and suggest that it comprises digitally enabled commercial transactions between and among organizations and individuals (Laudon and Traver, 2013). Technology has become one of the main drivers of economic development. In their study of the fundamentals and applications of e-commerce, Chan et al. (2001) stated that ICT and e-commerce play an integral role in economic and social transformation.

E-commerce has been defined in several ways depending on the context and research objective of the author (Grandon & Pearson, 2004). At a general level, e-commerce in SMEs is generally defined as the utilization of ICT and applications to support business activities (Poon & Swatman, 1999). Laudon and Traver (2003) elaborated the definition where they refer e-commerce as a set of technology that is utilized to support online business transactions between the organizations and their direct end customers and between the organizations and others within their business network(s). Meanwhile, Turban, King, Lee, Liang, and Turban (2010) provided a more specific definition where they stated that “e-commerce is the process of buying, selling, transferring, or exchanging products, services and/or information using computer networks mostly the Internet and Intranets.”

2.2 E- Commerce and Hotel Industry.
The increasing popularity of the internet and other related technologies has transformed the basis of marketing in the hospitality sector (Ip Leung and Law, 2010). A group of experts in the hospitality industry stated that training marketers to use ICTs and having ICT reports for marketing are the most urgent and important for the future of marketing in the hotel industry (Dev and Olsen, 2000). According to Steward and Barr, 2005, Hotels and lodging facilities are encouraged to strongly make use of web-based marketing, in order to improve their performance (Kasemsap 2017).

In 2005, Stewart and Barr stated that the internet and word of mouth are the two most important and powerful promotional tools used by hotels and other hospitality firms. Some hotels are still reluctant to take advantage of the many benefits that comes with the use of ICTs in their operation but rather rely largely on human resources to deliver personalized services to their customers (Connolly, 2000).

2.3 The Stages of Adoption Theory
E-commerce adoption in organisations have many factors that influence it from combining e-business knowledge, value proposition and delivery measurement, customer satisfaction and retention, monitoring
internal processes and competitor activity and finally building trust.

Among the studies that have focused on technology adoption, only few have been devoted to the adoption of E-commerce in SMEs, Grandon and Pearson (2004).

There are several steps that should be taken to further adopt the internet and E-commerce in general, although there are opinions that E-commerce will only be adopted as just for the sake of having E-commerce (Cater-Steel and Grist, 2004). The subject matter has also been investigated, and a best practice model for adoption of E-commerce produced (Jeffcoate and Danridge, 2002). The important fact is that E-commerce adoption is a process which is normally segmented into various phases and definitely not a once off event.

Although the SMEs have adopted many types of E-commerce applications, they might be at different stages of adopting those applications in accordance with the level of complexity. Therefore, it is important to examine the state of E-commerce adoption. In order to study different stages of E-commerce adoption, a conceptual framework is needed. One of the earliest models with respect to the usage of E-commerce evaluated the value of the commercial websites from different parts of the world (Ho, 1997). In his study, usage of E-commerce was categorized into promotion of products and services, provision of data and information, and processing of business transactions.

| STAGE           | DESCRIPTIONS                                      |
|-----------------|--------------------------------------------------|
| Promotion       | Promotion of products and services               |
| Provision       | Online enquiry, technical information, FAQ and value-added links. |
| Processing      | Online sales, online ordering and payments, order status enquiry, links warehouse and links distributors. |

Source: Lawson et al. (2003)

This model is termed as Model of Internet Commerce Adoption (MICA) and it basically describes the three stages of E-commerce adoption proposed by Ho (1997) (see Table 1).

This model was then adapted and merged with the Internet Business Models, APT Strategies (1997) developed into a graphical model of E-commerce adoption which was labeled as Internet E-commerce Staged Model. This model was later developed further by Lawson (2003) but Without much modification to study the adoption of E-commerce by SMEs in Australia.

### Table 2. 2 Stages and states of E-commerce

| Stages     | States     | Descriptions                                      |
|------------|------------|---------------------------------------------------|
| Access     | Uses the web for email and support a simple web page |
| Publish    | Maintains a multi-age web site and use it for email and communication or publication of business information |
| Transact   | Enables customers to conduct one-way or two-way transactions |
| Integrating| Uses web to integrate core business processes within organization |
| Advance    | Uses web as the foundation for existing in a digital community |

Source: Stone (2003)

Tables 1 and Table 2 provide a comprehensive picture about the stages of E-commerce adoptions and a basis for the development of measures of E-commerce usage.

### 2.4 General Description of Hospitality Industry in Ghana

Ghana's hospitality industry is 4th in ranking for profitability in this African country. Ghana is located on the West Coast of Africa near Cote d'Ivoire and Togo. Although the country has a good economy, aspects of the hospitality industry are rather expensive, especially hotels and flights. The reason they are expensive is due to the need for resources like gas and energy. However, since there are a lot of international travelers who fly into Ghana for training and meetings, this has become a serious market for Ghana.

One of the main reasons for the growth in the hospitality business is the growth of the mining industry in Ghana. Workers who are coming here to work in the local mines are starting to look for food and entertainment in these areas, which is creating a spin-off business boom. The natural resource mining has brought wealth domestically, creating a larger middle class, which is rare in Africa. Other reasons why this industry have taken off are the stable government and economy, which infers more safety, and the growing middle class in Ghana. Due to the tourism and the ability for growth, large hotel chains like Marriott and Radisson opened hotels this year (2016) in Ghana, with other chains looking at opening hotels in 2017.

Source: Study.com 2016
3.0 RESEARCH METHODOLOGY
Although there is a body of literature regarding challenges of adopting e-commerce in Ghanaian hotel industries, this research delves into the challenges in a very unique way of classifying the challenges under distinct headings hence makes this work very special. It is appropriate to examine why Hotels in Ghana have not taken up the many chances of e-commerce considering the rapid growth of online businesses in the developed countries.

3.1 RESEARCH QUESTION AND CONCEPTUAL FRAMEWORK
1. What are the Challenges of e-commerce adoption in Ghanaian Hotel Industries?
The main objective of this research is to investigate the challenges to e-commerce Adoption in the hotel industries in Ghana a framework for e-commerce challenges in hotel industries in Ghana was adopted and questionnaire was designed to collect the needed information to achieve our research objective and goal.

Many publications and write-ups of e-business commend the massive potential and prospects provided for consumers and business globally. Nonetheless, there are some problems (Mark Bynoe, 2002). Some of these include,

![FIG 3.0 Framework of E-commerce Adoption challenge in Ghanaian Hotels](image)

3.2 The Research Idea and Questionnaire Development.
The research critically examined the challenges of e-commerce Adoption with special reference to the hotel industries in Ghana. A total of twenty challenges of e-commerce Adoption was scrutinized from the interrelated literature studies. From the conceptual framework (Fig 3.0) and Table 4.1, the twenty challenges were collected into five by the help of experts, specialists and the interviewees.

Quantitative and qualitative methods of data collection were employed, 20 minutes was used for the qualitative data examination through unstructured interview. The collection of secondary data was aided by the use of structured interview the standard questionnaires reflected the challenges from the conceptual framework.

Respondents were giving the opportunity to select their most significant challenge with regards to e-commerce adoption in their hotel operations. The questionnaire encompasses of twenty challenges, clustered under four captions with a 5-point Likert-type scale which ranges from “5- Strongly Agree” to “1- Strongly Disagree” was adopted in the questionnaire administration.

The questionnaire targeted hotel users and some core employers from the ten regions of Ghana which are the main regions as at the time of the research a purposive sampling was also employed because the study targeted a specific people and

| Table 3. Socio-Demographic characteristics of Hotel Users |
|-----------------------------------------------|
| Position               | Number(N) | Percentage (%) |
|------------------------|-----------|----------------|
| Manager                | 120       | 100%           |
| Total                  | 120       | 100%           |
| Sex                    |           |                |
| Male                   | 70        | 58.34%         |
| Female                 | 50        | 41.66%         |
| Total                  | 120       | 100%           |
| Age                    |           |                |
| 51-60                  | 40        | 33.3%          |
| 31-40                  | 60        | 50%            |
| 41-50                  | 20        | 16.66%         |
| Total                  | 120       | 100%           |
| Level of Education     |           |                |
| Diploma                | 30        | 25%            |
| PHD above              | 20        | 16.66%         |
| Bachelor               | 50        | 41.66%         |
| Masters                | 20        | 16.66%         |
| Total                  | 120       | 100%           |

Source: field survey, 2018
4. DISCUSSION OF EMPIRICAL FINDINGS

The hotel sector is known to have an imperious role in the economic growth and development of Ghana in its annual wealth creation, tourism and employment creation. However as the world is growing into a global village, the Hotel industry has not been able to release their full potentials as a result of numerous factors that are hampering their growth.

Many Researchers have identified e-commerce as a tool for hotel growth and development. Despite these constraints, Hospitality performance is recognized, hence a research examining the challenges of e-commerce adoption will help the hospitality industry and Ghana as a whole.

In relation to the Gender of respondents in table 3.2 out a total of 120 respondents 70(58%) are males as compared to female 50(42%) males form the huge number of hotel managers it is perceived that the hospitality industry has many female enrolments as opposed to male but this study finds it vice versa. The same table also shows the educational level of hotel managers where majority of them having bachelor’s degree 50(41%) followed by diploma 30(25%) , masters holders 20(16%) and lastly PhD holders forming 20(16%) this clearly shows that the educational level of hotel managers in the Ghanaian hotel industry is higher and cannot be down played therefore their understanding to issues is very comprehensible. Next on the table was the age of respondents, 51-60 40(33%) whereas 31-40 60(50%) and 41-50 30(25%) this clearly depicts the activeness of respondents been in their youthful ages and highly tenacious in their working environments.

FIG.4.1

REGIONAL HOTEL DISTRIBUTION

- ACCRA, 30, 30%
- CENTRAL, 30, 30%
- EASTERN, 30, 30%
- ASHANTI, 10, 10%
- B/A, 10, 10%
- UPPER EAST, 10, 10%
- UPPER WEST, 10, 10%
- UPL, 10, 10%
- WFSTFRN, 10, 10%

SOURCE. FIELD SURVEY 2018.
Table 4.1 Perceptions about Challenges of e-commerce adoption by hotels in Ghana

| Perceived Challenges                                      | Strongly Agree (%) | Disagree (%) | Neutral (%) | Agree (%) | Strongly Agree (%) |
|-----------------------------------------------------------|--------------------|--------------|-------------|-----------|--------------------|
| Customer payment protection                               |                    |              |             |           |                    |
| Governmental Reforms                                      |                    |              |             |           |                    |
| Legal and regulatory framework                            |                    |              |             |           |                    |
| Trust                                                     |                    |              |             |           |                    |
| High cost of internet operation                           |                    |              |             |           |                    |
| Inadequate skilled Personnel                              |                    |              |             |           |                    |
| Internet speed deficiency                                 |                    |              |             |           |                    |
| Data security                                             |                    |              |             |           |                    |
| Lack of online payment system                             |                    |              |             |           |                    |

Source: Survey 2018

Table 4.1 elaborates the perceptions of the hotel managers on the Challenges of E-commerce adoption by hotels in Ghana. The variables used to examine this phenomenon includes, low level of technology use in the hospitality in Ghana, legal reforms and regulatory framework, governmental reforms, trust, quality and speed of internet, protecting customers, high cost of internet operation, data security, lack of online payment system

**4.1.1 EXTERNAL FACTORS:**

**Security:** One of the biggest advantage of the internet is to provide global access however, players in the hospitality industry have the duty to protect their major assets from malicious proliferation and unintended abuse. A serious problem arises from the use of the Internet for marketing. Sixty five percent of Internet users do not have confidence in the Internet as a payment channel. Nevertheless, with encryption, verification and the development of secure websites, security is becoming less of a constraint for e-businesses in the hospitality industry.

**Lack of Sufficient information:**

The flow of information on e-commerce activities is very mean from the external sphere to the local environment. Internet activities are limited thereby making people to gain enough information from the outside environment.

**4.1.2 INSTITUTIONAL CHALLENGES**

**Conforming to Taxation Procedures:** The use of internet for business has a strict taxation adherence level as opposed to traditional retail methods. Taxation should not discourage consumers from patronizing electronic purchasing channels it should not give enough advantage to Internet purchases over store purchases either. The hotel industries should have a level playing ground for traditional retailers and mail-order companies, and Internet-based merchants in the form of designing a level format tax policy.

**Governmental Reforms:** Some government policies tends to hinder the smooth operationalization of e-commerce related activities thereby creating a great challenge for e-commerce adoption.

**Legal Reforms and Regulations:** There are no solid legal framework and regulations for e-commerce related activities which makes its activities and operations very insecure.

**4.1.3 ATTITUODINAL CHALLENGE**

**Protecting Customers** Hotel facility owners owe consumers of internet the duty of care to protect them from illegal or harmful goods and services, inadequate information about goods and services or their suppliers, unsolicited goods and communication, invasion of privacy and cyber fraud.

**Culture:** The adoption culture of the individuals giving new technology a chance at the expense of an obsolete and traditional technology is very low.

**Trust:** Many customers wants to have a feel of products they are patronizing before they can pay for the product however e-commerce involves the patronage of the product online which makes it uneasy for the customer to have access to before they can use this in a way hinders the smooth progress of e commerce adoption in the hotel industry.
4.1.4 TECHNICAL CHALLENGE

Cost: the nature of the cost in implementing e-business is relatively on the high side thus the amount used in purchasing equipment’s, networks, and software to run the service impedes its operationalization.

Inadequate skilled personnel: Due to the complex nature of ICT systems, there is not many people who venture into that sector thereby making it very difficult to get access to many skilled personnel to run the systems for operation.

Quality and speed of internet: the speed of network and internet systems as compared to the developed world is comparatively slow therefore the implementation of e-commerce systems takes a slow pace for operation since every aspect of e-commerce is strictly by internet operation.

5.0 CONCLUSION AND RECOMMENDATION

Though there are many literatures on e-commerce and its adoption models implementation, little research has focused on hospitality development in a country like Ghana which is still developing.

There had been different school of thoughts arguing to the fact of the challenges hotels face in e-commerce adoption filling the gap in literature, this study seeks to bring on board a vivid picture of the challenges the hotel industry faces in adopting e-commerce

The conceptual framework was developed from real challenges concerning hotel operations and e-commerce implementation and their adoption models. Questionnaires were administered to a set of hotel managers to provide their perceptions on challenges of e-commerce adoption.

The outcomes depicted that hotels display an earnest perception of e-commerce. The Hotels which have at present embraced e-commerce has involved it in their long-standing plans considering e-commerce as inventive and important. However, many of the hotels to are yet to adopt the system.

Many reasons have been enumerated including the lack of online payment system, trust, customer security, and lack of skilled personnel and inadequate legal and institutional framework as amongst the numerous challenges of e-commerce adoption.

E-commerce has the greatest possibility for a modern day enterprise to progress on a fast rate both internally and externally and also improve its strong customer services owing to the numerous advantages of e-commerce like productivity enhancement, and cost efficiency it also emphasizes the potentials for stronger growth and establishes a greater tides between co-operation, quality and flow of knowledge.

Recommendations

With Reference to the conclusions of the study and discussions as well as literature reviewed, this research offers a recommendation for both policy maker’s hotel owners and hotel managers to improve in their areas of interest and for future research into this area.

1. With respect to the enactment of ecommerce, it is important to create consciousness of e-commerce and its related services and benefits for the public to know its significance in the modern era of business operations. There should exist a unique strategic plan for its adoption.

2. The government should have a legal and regulatory framework to control the activities of e-commerce adoption not only in the hospitality industry but other business sectors of the economy that deems fit.

3. Necessary infrastructure such as sufficient fiber optic cables and other related peripherals should be made accessible by government to expand adoption of e-business applications by Ghanaian hotels.

4. Facility managers must be educated by the responsible authority on the modern trends of e-commerce applications, their benefits and how to best assimilate them into their normal work environment.

5. The cost of internet connectivity must be very flexible for easy connectivity for hotel managers to build interest in the usage of internet and also ensure a genuine and fair charge for consumers.

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