

ANALYSIS OF THE STAGE OF E-COMMERCE ADOPTION BY THE HOTEL INDUSTRY IN NORTH CYPRUS AND FACTORS THAT MIGHT PREVENT ITS ADOPTION

Dr.Mohamad Hammouri,

Faculty of Business, Modern College of Business and Science, Oman

mohamed.hammouri@mcbs.edu.om

ABSTRACT: *The present study intends to examine the stage of e-commerce utilization by the hotel industry in North Cyprus and then to assess the issues that could indeed prevent its adoption. Questionnaire survey was the main methodology employed in this study, the questionnaires have been sent to the hotels that were registered and recognized by the directory of Ministry of Tourism and other sources as well. Based on the findings obtained from the instrument following statement has been concluded, the utilization of e-commerce among the hotel industry in North Cyprus is low, and the majority of the hotels have integrated only the basics of e-commerce applications and do not implement the more advanced tools by using e-commerce. As an example for that, the most commonly used e-commerce application was website and email address, where online payment process was the least used application. When studying in depth the issues, which might cause a barrier to the implementation of the e-commerce among the hotel industry in north Cyprus, were identified by using the factor analysis. These factors included financial, behavioral, technical, governmental, organizational and environmental barriers, on the other hand, correlation analysis illustrated that all the factors have relatively negative influence on the degree of e-commerce application. From six factors, the only factor has associated indeed with organizational barriers has significant correlation with the extent of e-commerce adoption. Furthermore, regression analysis confirmed that the variables related to organizational barriers have a large negative influence on the amount of e-commerce adopted. In summary, the North Cyprus hotel industry although facing many issues preventing the full use of e-commerce the main factor related to organizational barriers.*

KEYWORDS: hotel industry, electronic commerce, hospitality industry, e-commerce adoption, e booking

INTRODUCTION

E-commerce the short form for electronic commerce over the internet is relatively a mature method of carrying out business activities. In its approximately seventeen years of existence it has radically altered not only the way business is done, but also other related economic activities and indeed the society in general. The effect and penetration of ecommerce can be felt in such industries as the communications, finance, travel and retail industries. It also holds immense promise of contributing to the health and education sectors. The evolution of ecommerce activities in its present form can be described to a integration of diverse technological innovations as well as regulatory reforms. It is widely held that the forerunner to the internet upon which ecommerce activities are driven appeared sometime in the 60s, however e-commerce driven by the internet only became a commercial reality in the 90s with the innovation of the World Wide Web, and subsequently browsers.

In addition, widespread governmental deregulation and liberalization of the telecommunications sector and the immense innovative revolutions that followed by huge expanded the volume and capacity communications infrastructure, paving the way for the widespread commercialization of internet services. The explosion of communications infrastructure and wide spread deregulatory activities eventually would breakdown most of the barriers that prevent in engaging in e-commerce for individual on the buying side as well as for those on the selling side. Initially during the early stages the e-commerce phenomenon, the market was dominated by large firms who could afford the extremely high costs of developing e-commerce platforms, and platforms tended to be overtly custom designed, complicated and expensive. Today however, for a couple hundred dollars anyone can start an e-commerce enterprise and gain instant access to millions of global consumers.

LITERATURE REVIEW

‘E’ stands for ‘electronic networks’, and describes the application of electronic network technology. This includes both the internet and electronic data interchange (EDI). These are used to improve and change business processes. E-Commerce is used for business transactions through the internet medium. These are generally outward facing processes that touch customers, suppliers and external partners, which will include sales, marketing, order taking, delivery etc. (Hoffman & Novak, 2000)

E- Commerce can be classified into 5 distinct categories:

Business to Consumer (B2C): This particular model is one of the most widely used tools in the e-commerce industry as it is very easy and simple in nature. Firstly, the marketers sell their products to the retailers and in turn, the retailers sell to the consumer. This system is very efficient and has been running for 15 years, boosting commercial sales and actually reducing costs in many instances. This is a very popular way of doing commercial sales.

Business-to-Business (B2B): B2B is high-end business dealing which can involve large amounts of capital with transactions running into trillions of dollars. These transactions take place between two businesses and the consumer is not involved in this stage. The product is sold from one business to another, which is then sold on to the consumer under their brand name. A company might also just purchase accessories to the final product but still market them under their own brand name. This works particularly well for the Major companies who buy manufactured products who then sell them on under their brand name.

Consumer-to-Consumer (C2C): consumer to consumer is now a very common way of completing transactions online. One common form of C2C is through third parties like e-bay where an individual can list an item for sale and another individual can bid to purchase it. The third party generally takes a small commission for handling the transaction.

Peer-to-Peer (P2P): is completely different, as it does not generate huge amounts of income. This is a file sharing and distribution form of networking that allows file sharing of books, music, videos etc, via the internet. This method is still evolving and the early networks like Napster, which popularized the technology to more sophisticated models like the BitTorrent protocol lead its development. The lack of substantial revenue is due in part to the amount of piracy in the market.

Mobile-Commerce (MC): this form of commerce has developed due to the huge rise in the use of mobile phones and there complexity. This area is one of the fastest growing sectors of e-commerce and it is predicted to continue growing for many years to come. Essentially, the range of devices that are enabled for m-commerce is growing and now includes smartphones and tablet computers. This is

driven by demand, from more mobile customers and a larger consumer base. The resolution of security issues and the technical advances of wireless hand held devices with substantial computer power make this sector one to watch. As can be seen e-commerce is evolving daily which again is being driven by the needs of the consumer. E-commerce is the future of consumerism and it reaches all corners of the globe making globalization a consumer reality.

(Figure 1) Chaffy's e-commerce classification

		From: Supplier of content/service		
		Consumer or citizen	Business (organization)	Government
To: Consumer of content/service Business (organization) Government	Consumer or citizen	Consumer-to-Consumer (C2C) <ul style="list-style-type: none"> • eBay • Peer-to-Peer (Skype) • Blogs and communities • Product recommendations • Social networks: MySpace, Bebo 	Business-to-Consumer (B2C) <ul style="list-style-type: none"> • Transactional: Amazon • Relationship-building: BP • Brand-building: Unilever • Media owner – News Corp • Comparison intermediary: Kelkoo, Pricerunner 	Government-to-Consumer (G2C) <ul style="list-style-type: none"> • National government transactional: Tax – in and revenue • National government information • Local government services
	Business (organization)	Consumer-to-Business (C2B) <ul style="list-style-type: none"> • Priceline • Consumer-feedback, communities or campaigns 	Business-to-Business (B2B) <ul style="list-style-type: none"> • Transactional: Eurofice • Relationship-building: BP • Media Owned: Emap business publications • B2B marketplaces: EC21 	Government-to-Business (G2B) <ul style="list-style-type: none"> • Government services and transactions: tax • Legal regulations
	Government	Consumer-to-Government (C2G) <ul style="list-style-type: none"> • Feedback to government through pressure group or individual sites 	Business-to-Government (B2G) <ul style="list-style-type: none"> • Feedback to government businesses and non-governmental organizations 	Government-to-Government (G2G) <ul style="list-style-type: none"> • Inter-government services • Exchange of information

Source: Chaffy 2009

E-COMMERCE APPLICATIONS

Electronic Funds Transfer (EFT): Essentially Electronic Funds Transfer is a system of transferring money from one bank account to another without any paper money changing hands. The most popular use of this kind of transaction is in the payment of salaries. Instead of getting a paper cheque and taking it to the bank, the employer transfers the wages directly to the employee's bank account electronically. In the UK, a system called Bank Automated Credit Service; BACS is used for most of these transactions.

Payment cards: Credit cards, debit cards, charge cards, smart cards are all types of payment cards that can be used for electronic payments. There are two types of credit card on the market today:

Credit cards: that are issued by credit card companies (Mastercard, Visa) and those issued by major banks (Is Bankasi, Ziraat Bankasi, Lloyds etc.) Credit cards are issued according to the customer's perceived income level, credit history and total wealth. The customer can use these cards to buy goods and services or get cash from participating financial institutions. The customer is charged interest if they do not keep up their payments during defined periods eg; 30 days interest free after this time

19% interest on balance. Credit cards are suitable for mid- range transactions but are unsuitable for large purchases as their will be a credit limit and for small purchases it is not cost justified.

Credit cards: issued by department stores oil companies (Shell). Businesses do very well out of these cards as they also charge interest on the cards balance but also draw people towards their business as customers. These businesses will often offer incentives to attract customers to open an account and get one of the cards.

Debit Cards: the difference between debit cards and credit cards is that you firstly need to know your personal identification number (PIN) and the place of purchase will need a method of electronically reading the magnetic strip on the back of the card. There is often a limit as to how much you can spend on these cards in one day, or transaction eg; \$400 limit.

Charge cards: a charge card is similar to a credit card except they do not give you the option of paying over a longer period of time. The balance must be paid every month. American Express charge cards were very popular before the Internet but have been overtaken somewhat by credit cards and the introduction of the internet.

Smart Cards: a smart card looks like a credit card but has been embedded with a chip that contains important financial and personal information. The card could contain an amount of credit that can be used like a debit card and be recharged when the credit is used.

Electronic Cash (E-Cash): E-Cash is cash but in an electronic form. This is money that can be transferred, exchanged for transactions over the internet. This money can be stored on a smart card or in software known as a digital wallet.

E-Cheques: are the result of cooperation between several banks and government entities, technology companies and E-commerce organizations. The e-cheque uses the same protocols as the traditional paper cheque. It combines high security, speed, convenience, and processing efficiency for online transactions.

E-Wallets: This device allows the customer to make e-commerce transactions. This can be purchasing online using a computer or smartphone. They are being used increasingly, not just for purchases but also to authenticate the holders' credentials. For example might be verifying someone's age when buying alcohol in a store. Much more information could be held on the device such as driver's license, health card details, PIN numbers, passwords etc. The thought is that the digital wallet will eventually take the place of the traditional wallet.

Research Objectives

1. The primary aim of this study is to examine the degree to which e-commerce is used in the hotel Industry in North Cyprus.
2. Secondly, another main research aim is to study the issues that can prevent the integration of e-commerce among the hotel Industry in North Cyprus.

The main aspiration of this study is to highlight the current stage of e-commerce and its usage in the hotel industry of Northern Cyprus in the hope that academicians will take action in the appropriate

direction. This includes the degree to which it is introduced also to see the ingredients that could prevent its adoption. However, it is hoped that the outcome can assist the hotel industry and also will help the government in this area to surpass the limitations and increase the level of e-commerce integration.

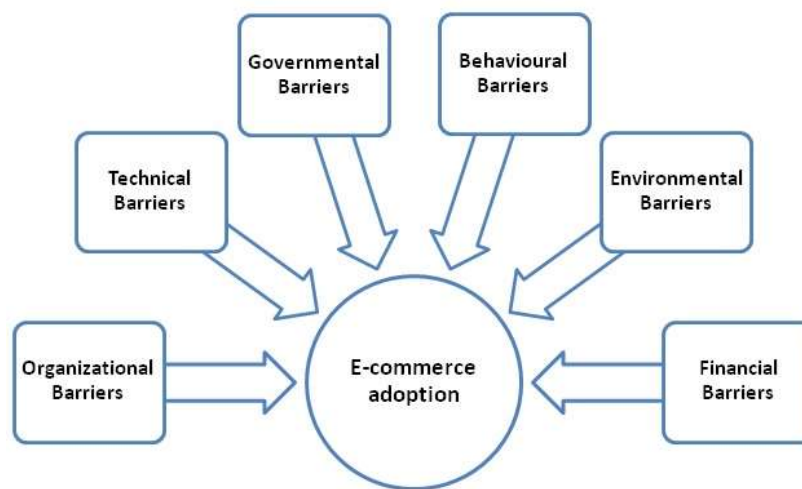
Problem Statement

This study seeks to answer the following question:

- What prevailing issues could be stopping the adoption and integration of e-commerce amongst the hotel industry in Northern Cyprus?

Study Model

Figure 2: The conceptual model OF E-commerce adoption



The study model was designed by researcher

Research Hypotheses

Based on study objectives and study problems variables, the researcher designs a number of hypotheses to be tested:

Ho1: Factors relating to technical terms that have a negative influence on e-commerce adoption.

Ho2: Factors relating to the financial barriers that have a negative influence on e-commerce adoption.

Ho3: Factors relating to the organizational barriers that are having a negative influence on e-commerce adoption.

Ho4: Factors relating to the governmental barriers that are having a negative influence on e-commerce adoption.

Ho5: Factors relating to environmental barriers, which have a negative influence in e-commerce adoption.

Ho6: Factor related to behavioral barriers has negative influence on e-commerce adoption.

METHODOLOGY

Study Population and Sampling

The population of the study consisted of all working hotels that were registered with the Ministry of Tourism in North Cyprus only (Lefkosa, Guzelyurt, Iskele, Gazimağusa, Girne). After personal contact, 87 hotels were accepted to participate questionnaires were directly sent through E-mail to the Managers, Owners, Marketing Managers and IT Managers, the number of returned questionnaires were 101 copies from 136 as total response 74.2% as shown in the questionnaire distribution table (Table 1)

Hotel class	No. of hotels	Number of questionnaires		Response rate
		Distributed	Returned	
5 stars	15	27	21	77.7%
4 stars	3	9	5	55.5%
3 stars	8	19	11	57.8%
2 stars	13	22	15	68.1%
1 star	15	21	15	71.4%
Others	33	38	34	89.4%
Total	87	136	101	74.2%

Statistical Analysis

Study Variables Reliability

Table (2) Cronbach's alpha values of the study variables

Factor	Cronbach's Alpha
Technical	0.717
Financial	0.818
Environmental	0.803
Organizational	0.732
Behavioral	0.780
Governmental	0.707

Table (2) results showed that all values of Cronbach's alpha test are higher than the acceptable level of internal consistency (0.70).

Hypothesis testing:

The findings in (Table 4-10) show that factors related to technical, financial, environmental, organizational, behavioral and governmental have negative correlations to the scope of e-commerce utilization, as the highest barriers in regard to those factors and the lowest to e-commerce adoption. The initial findings appeared to accept all the hypotheses rose earlier in this study; out of all the factors just the factor in regard organizational barrier has important correlation to the scope of e-commerce adoption among the hotel industry in Northern Cyprus. In other words the major threat of adopting e-commerce by North Cyprus hotel industry is the organizational barriers.

(Table 4-10) Correlation analysis in the scope of e-commerce adoption and the factors

		Technical	Financial	Environmental	Organizational	Behavioral	Governmental
Extent of e-commerce adoption	Pearson Correlation	-.162	-.069	-.110	-.268(*)	-.054	-.104
	Sig. (2-tailed)	.235	.551	.424	.027	.665	.380
	N	101	101	101	101	101	101

* Correlation is significant at the 0.05 level (2-tailed).

The results obtained from the correlation analysis indicated that there is a relation between the variables, with no need to confirm which is the dependent and which is the independent variables; because of this regression analysis was applied to find if the scope of adoption of e-commerce amidst the hotel industry in North Cyprus is influenced by several factors related to different barriers. In one hand dependent variable here is the applications of e-commerce have been adopted in which its the extant of e-commerce adoption, on the other hand the independent variable is the factor related to organizational barriers, because this is the only factor worth mentioned. The other factors were neglected or excluded due to low correlation with the level or stage of e-commerce adoption, the findings as shown in (Table 4-11).

(Table 4-11) Regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.688	2.232		4.717	.000
	Organizational	-.536	.228	-.268	-2.260	.027

The results of regression analysis showed that the factor associated to organizational barriers has a clear negative impact on the extent of adopting e-commerce, so the third hypothesis Factors relating to the organizational barriers that are having a negative influence on e-commerce adoption was accepted only, while the other hypotheses were rejected. As shown in the status of the hypotheses table (Table 4-12)

(Table 4-12): Status of the hypotheses:

No	Hypotheses	Status
H1	Factors relating to technical terms that have a negative influence on e-commerce adoption.	Rejected
H2	Factors relating to the financial barriers that have a negative influence on e-commerce adoption.	Rejected
H3	Factors relating to the organizational barriers that are having a negative influence on e-commerce adoption.	Accepted
H4	Factors relating to the governmental barriers that are having a negative influence on e-commerce adoption.	Rejected
H5	Factors relating to environmental barriers which have a negative influence in e-commerce adoption.	Rejected
H6	Factor related to behavioral barriers has negative influence on e-commerce adoption.	Rejected

FINDINGS

The present study had two main objectives, which included analyzing the stage that e-commerce adoption has among the hotel industry of North Cyprus as well as the extent of e-commerce integration. This study also attempted to determine which factors could indeed prevent or slowing the e-commerce adoption in the first place. A conceptual model was created to evaluate the degree of e-commerce integration by the hotels which influenced by several factors; furthermore, study by (Love, Iran, Li, Cheng, & Tse, 2003) was the basis for the current model along with other literature. A questionnaire survey was the research method used in the current study whereby the questionnaires were sent out to all participants as planned in the frame of the sample.

From the raw data that was collected, various statistical tools and tests were analyzed which provided the answers to the research questions aforementioned. There were two predominant research questions in this study. This included: (i) to what degree is e-commerce utilized among hotel industry in North Cyprus? (ii) What prevailing issues could be stopping the adoption and integration of e-commerce amongst the hotel industry in North Cyprus? The findings of the present study illustrated that large proportion of the hotels in North Cyprus have indeed adopted only some applications of e-commerce. It was found that such adoption levels were not so high, on the other hand majority of the hotels have only adopted a very rudimental applications.

Other relatively low levels of adoption of advanced applications of e-commerce included online payment systems, as well as order processing and EDI. The consequence of that, the results gathered here has appropriately answered the first question of this research. The findings from this study exemplified that more effort is required to encourage the hotel industry in North Cyprus in order to speed up the e-commerce adoption, especially the complex applications. Numerous statistical analyses were performed, In order to answer the second research question, the mean scored through descriptive statistics showed the following, and the top barriers for e-commerce integration are:

1. Lack of or absence of sufficient security to prevent hacking and viruses
2. Necessity of having more IT experts or staff for managing e-commerce
3. In respect of sales and marketing higher degree of human interaction is needed.
4. The expenses/cost of starting up or building e-commerce applications is high.

From the obtained findings of this study were in line with the previous studies on e-commerce integration. (Sulaiman, 2000) and (Khatibi, Thyagarajan, & Seetharaman, 2003) found similar results in Malaysia, the main barriers to e-commerce adoption included lack of security and privacy, high set up cost, lack of skilled staff to manage e-commerce as well as business required personal touch and interaction. Six aspects were grouped as barriers in this study as a result of factor analysis. These were labeled then grouped as environmental, governmental, financial, organizational, technical and behavioral barriers. This grouping was seen to coincide with the proposed conceptual model in the present study.

On the other hand, correlation analysis illustrated that all the factors have some negative control on the degree of ecommerce adoption. Amongst these factors, the only issue that really related to organizational barriers has notable negative influence on e-commerce integration. Regression analysis was employed then confirmed that organizational barriers has negative influence on the extent of e-commerce integration. Furthermore, although the results have suggested that only

organizational barriers factor has significant influence on the degree of e-commerce adoption by the hotel industry in North Cyprus, there are other issues that indeed have relatively some influence on the extent of its adoption. The findings above have appropriately answered the second research question.

Implication to Research and Practices

It can be stated that the implications of the preceding findings means that the hotel industry in North Cyprus needs to reevaluate the reasons why profit cannot be made from adopting e-commerce. One suggestion could be that more consideration needs to be investigated in more advanced e-commerce applications and reformatting their marketing strategies to gain profit as well as market share of the integration of the aforementioned applications. Governments and the decision makers can indeed support and help for more investing into e-commerce.

This could mean for example, the governments should offer loans or subsidies to the hotels in North Cyprus, since governmental barriers were seen as impediments to e-commerce integration; hotel industry in North Cyprus must help each other in order to overcome the difficulties as well as the ecommerce adoption barriers.

For instance, they can set up more advanced communication networks between them such as the web-based EDI, hotels in North Cyprus could indeed prevail over such barriers. They could share market information amongst each other so more effective strategies could come about resulting in more monetary gain. Government intervention could take a place to support the industry by keep the industry up to date with the higher provisions of telecommunication infrastructure as well as consultancy and training.

Future Research

The Future research needs to address the limitations in order to achieve more convincing results, which can be more effective. If this study was to be repeated again in the future, a bigger sample must be obtained in order for the statistical analysis to be more meaningful. Second, future research must investigate whether the hotels in North Cyprus realizes the benefits of e-commerce adoption. Third, future research should also try to see the mediating factors and take their influence into considerations so as to curtail the impenetrable effects. Moreover, all motivating factors or drivers of e-commerce adoptions should be included in future research in order for the results of statistical analysis can be more accurate, to include multiple regressions. Lastly, future researchers should consider using more qualitative research such as a case study or other methods in order to gain a richer idea of e-commerce adoption by the hotel industry. This could also include face-to-face interviews as well.

References

- Hoffman, D., & Novak, T. (2000). How to acquire customers on the web. *Harvard Business Review*, 78(3), 179-189.
- Sulaiman, A. (2000). The Status of e-commerce applications in Malaysia. *Information Technology for Development*, 9, 153-161.

- Anckar, B., & Walden, P. (2001). Introducing web technology in small peripheral hospitality organizations. *International Journal of Contemporary Hospitality Management*, 13(5), 241-250.
- Love, P. E., Iran, Z., Li, H., Cheng, E. W., & Tse, R. Y. (2003). An empirical analysis of the barriers to implementing e-commerce in small-medium sized construction contractors.
- Khatibi, A., Thyagarajan, V., & Seetharaman, A. (2003). E-commerce in Malaysia: Perceived Benefits and Barriers. *The Journal for Decision Makers*, 28(3), 77-82.
- Chan, j. K. (2008). Factors affecting the adoption of internet by small and medium sized accommodation in Sabah: an exploratory study. Paper presented at the 6th Asia Pacific CHRIE (APacCHRIE) Conference and THE–ICE International Panel of Experts Forum 2008: Developing & Delivering Industry–related Research and Education, (pp. 21–25). Perth-Australia.
- Josiam, B. M., & Frazier, R. (2008). Who Am I? Where did I come from? Where Do I Go To Find Out? Genealogy, The Internet, and Tourism. *Tourismos: An International Interdisciplinary Journal of Tourism*, 3(2), Josiam, B.M. & Frazier, R. (2008). Who Am I? Where did I come from? Where Do I Go To Find Out? *Genealogy*, T35–56.
- Osti, L. (2009). Creating UGC areas on official destination websites: Is there a recipe for success? An insight through netnographic research. *Tourismos: An International Multidisciplinary Journal of Tourism*, 4(3), 99–112.
- Chaffey, D. (2009). *E-business and e-commerce management*, (3rd edition) New Delhi: pearson. (3rd ed.). New Delhi: pearson.
- Rocha, A., & Victor, J. A. (2010). Quality of hotels websites – proposal for the development of an assessment methodology. *Tourismos: An International Multidisciplinary Journal of Tourism*, 5(1), 173-178.
- Turban, E., King, D., Lee, J., Liang, T., & Turban, D. (2010). *Electronic commerce: a managerial perspective* (6th ed.). New Jersey: Pearson.
- Papanis, E., & Kitrinou, E. (2011). The role of alternative types of tourism and ICT – strategy for the tourism industry of Lesvos. *Tourismos: An International Multidisciplinary Journal of Tourism*, 6(2), 313–331.