
Factors Affecting Adoption of Electronic Commerce by Travel Agencies Odisha:

A Literature Review Introduction

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Abstract

The travel agencies in Odisha are struggling to sustain due to the online travel portals like Make My Trip, Yatra, Cleartrip, etc.. Some travel agencies in Odisha are trying to adopt but are facing lots of problems due to various factors. The Internet has provided a way by which firms can communicate with all stakeholders using electronic mail and has provided a vast source of information that firms can use to help in fulfilling their business goals. Globalization, competition, changes in technology, customer awareness, etc. have forced the organizations towards doing business over the internet. Due to globalization and adoption of electronic commerce, geographical barriers have been reduced. To design a new product, to have a better customer service, and to survive in the competitive global market; Information Technology is considered as an essential tool. There is a consensus that electronic commerce has a significant effect on the productivity of the organization. This effect can be realized, if and when, electronic commerce is widely used and spread. For the adoption of e-commerce, it is essential to understand the theoretical models and previous literature reviews at the organization level. There are few literature reviews about the adoption of electronic commerce by travel agencies.

In this study, we are going to review the factors affect adoption of electronic commerce and hope this will help the travel agencies in Odisha for successful adoption. There are many theories for the adoption of technology but in this study, we are going to review theories of adoption of e-commerce at the firm level.

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1. Introduction

Due to online travel portals, the travel agencies in Odisha facing problems to sustain in this competitive global market. The Internet, a massive network of computers, mobile devices, and networks is a common channel for communication nowadays. It has become an integral part of business houses. The Internet has provided a way by which firms can communicate with all stakeholders using electronic mail and has provided a huge source of information that firms can use to help in fulfilling their business goals. Globalization, competition, changes in technology, customer awareness, etc. have forced the organizations towards doing business over the internet. The customer can purchase a train, air tickets online from their home using internet banking, debit cards or credit cards. The hotel booking, car rental, and visa services are also available online. Convenient, Flexible, various payment mechanism, 24/7 customer services, etc. have forced the travelers in Odisha to purchase tour packages online which has created a threat for the travel agencies in Odisha.

According to global internet report by the Internet Society (2015), 3 billion Internet users were in May 2015, and it is expected that it will cross 4 billion by the end of 2016. Mobile Internet use penetration is forecast to reach 71% by 2019. Usage per device is forecast to be more than triple by 2019. 16 countries have the active 4G mobile network, and 192 countries have active 3G networks, that is 50% of the global population. The majority of mobile handsets sold worldwide is smartphones. The tablet sales have crossed total PC sales.

As per the report by Internet and Mobile Association of India (IAMAI) (2015), the **number of internet users in India** had reached 354 million by the end of June 2015, and it is expected to cross around 460 million by the end of June 2016. This figure indicates that India has more internet users than the population of the US and become the second largest country in the number of Internet users after China. The Internet users in India have grown 17% in the initial six months of this year, adding 52 million new users and the number of *internet* users in *India* will be 500 million by 2017.

According to IAMAI-KPMG report (2015), a major growth in the number of mobile internet users was also recorded current year. The number of mobile internet users in India grew from 173 million in December 2014 to **213 million users by the end of June 2015**. Nearly 128 million mobile internet users belonged to the urban population of India, and the rest 45 million reside in rural areas of the country. 72% of tabletsIt is expected that the mobile internet users in India will grow up to 314 million. The table below displays on the trends based on Internet user statistics.

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Table 1.1: Internet User Statistics in India

| Year (July 1) | Internet Users* | User Growth | New Users | Global Rank |
|---------------|-----------------|-------------|------------|-------------|
| 2015 | 317,000,000 | 30% | 73,801,078 | 2 |
| 2014 | 243,198,922 | 14% | 29,859,598 | 3 |
| 2013 | 213,339,324 | 37% | 57,763,380 | 3 |
| 2012 | 155,575,944 | 27% | 32,605,503 | 3 |
| 2011 | 122,970,441 | 36% | 32,548,593 | 3 |
| 2010 | 90,421,849 | 48% | 29,486,779 | 4 |
| 2009 | 60,935,069 | 18% | 9,484,859 | 6 |
| 2008 | 51,450,210 | 12% | 5,665,948 | 6 |
| 2007 | 45,784,262 | 43% | 13,709,281 | 6 |
| 2006 | 32,074,981 | 19% | 5,157,948 | 7 |
| 2005 | 26,917,033 | 23% | 4,969,545 | 7 |
| 2004 | 21,947,488 | 19% | 3,500,884 | 8 |
| 2003 | 18,446,604 | 11% | 1,888,210 | 9 |
| 2002 | 16,558,394 | 137% | 9,564,138 | 8 |
| 2001 | 6,994,257 | 27% | 1,495,988 | 12 |
| 2000 | 5,498,269 | 96% | 2,697,680 | 9 |

Source: *Internet Live Stats* (www.InternetLiveStats.com), 2015

Elaboration of data by *Internet & Mobile Association of India (IAMAI)*, *International Telecommunication Union (ITU)*, *World Bank*, and *United Nations Population Division*.

According to above statistics the Internet users in India who can access the Internet at home, via any device type and connection are increasing year by year. India shares nearly 10% of world internet users. Now India is the world's second largest Internet user base after China. So there is a potential growth of the business by the adoption of electronic commerce.

Travel and Tourism Industry

Travel and tourism are an industry which provides fun, happiness, excitement to its clients. According to Goeldner and Ritchie (2009), the travel agent is 'a middleman; business or a person selling the travel services like ticketing, hotel booking, and transportation to the consumer'. A travel agent's main objective is to attract, accommodate and provide transportation, tourist information, guiding services, visa and passport services, etc. to travelers. Travel agents are the interface between consumers and the travel suppliers such as airlines, railways, hotels, car rentals, cruise lines. It also provides tour packages that include all services for a traveler. The revenue generation model of a travel agent is getting a commission from travel supplier.

E-commerce Adoption by Travel Agencies

According to a report by ystats.com in Sept 2015, the travel and tourism industry is ranked among the top three products/service categories purchased via the internet. Due to globalization, innovation in technology, improving productivity and competitiveness, travel agents must change their ways of doing business and become less dependent on the wholesale suppliers. As per Heung (2003) and Standing et. al. (1999), bricks-and-mortar travel agents are a sector of the travel industry whose future is under threat because of competition from online travel portals. Due to changes in technology, an increase in customer expectation, changes in consumer behavior, have led to the disintermediation of travel agents from the global travel market (Deng et al., 2000, Goldmanis et al., 2010, Andreu et al., 2010, Gratzner and Winiwarter, 2003).

Odisha Tourism

Tourism in Odisha is treated as a priority sector in terms of the rich potential of employment & income generation, foreign exchange earnings and value addition to the State economy. With an abundance of natural assets, Odisha tourism bears the deliverables like ecologically sound and economically viable tourism development, integration of infrastructure support, institutional mechanism, investment, etc. with the developmental framework of the state. Tourist revenue is equally important for the state exchequer. Odisha bears the essence of rich tourism sector with its age-old cultural heritage, a myriad of monuments and nature's bounties like beach resorts, eco-tourism, flora & fauna, biodiversity and national parks and sanctuaries. Although the state tourism plays a comparatively small role in Indian tourism scenario, still huge potential for growth is ingrained in this sector in Odisha. Blend with both forward and backward linkages, this hospitality sector, generate more than 92 thousand direct employment and 2.77 lakh indirect employments in the ratio of 1:3 in Odisha according to a report of Department of Tourism, Govt. of Odisha, 2015.

Table 1.2: Domestic & Foreign Tourist Visiting Odisha

| Year | Domestic | | Total | % growth | Foreign | % growth | Grand Total | % growth |
|---------|-------------|----------------|-------------|----------|---------|----------|-------------|----------|
| | From Odisha | Outside Odisha | | | | | | |
| 2010-11 | 46,71,876 | 30,98,865 | 77,70,741 | 9.38 | 53,212 | 12.96 | 78,23,953 | 9.4 |
| 2011-12 | 50,88,184 | 33,84,024 | 84,72,208 | 9.03 | 62,816 | 18.05 | 85,35,024 | 9.1 |
| 2012-13 | 55,79,909 | 37,11,825 | 92,91,735 | 9.67 | 65,522 | 4.30 | 93,57,256 | 9.6 |
| 2013-14 | 60,38,746 | 40,25,325 | 1,00,64,072 | 8.31 | 67,400 | 2.87 | 1,01,31,472 | 8.3 |
| 2014-15 | 66,30,499 | 44,20,852 | 1,10,51,351 | 9.81 | 72,215 | 7.14 | 1,11,23,566 | 9.79 |

Source: Annual Activities Report 2014-15, Department of Tourism, Govt. of Odisha, 2015

Odisha used to get less than one percent share of foreign tourists arrived in India. However, in absolute terms, the number of tourists from within the State, outside the State and abroad has been increasing. Between 2001 to 2013, the number of tourists from within the State has four times, while it is more than doubled from the rest of India and more than doubled in case of abroad. During 2014-15 the tourist's arrival in the state was 1,11,23,566 against 1,01,31,472 in 2013-14 with a growth rate of 9.79% over previous year.

2. Literature Review

The literature review below cross-examines the facets and features of electronic commerce adoption in the tourism sector. It has introspected on the veracity of the subject and shortlisted the key variables delving into the semiotics.

Tan and Ludwig (2016) identified that Adoption of B2B e-commerce is a powerful driver of economic success in developed and developing countries. However, adoption rates in developing countries lag far behind. This paper draws on the perceived e-readiness model and research on the influence of inter-organizational relationships and economic-cultural contexts to explain the importance of three factors - inter-organizational power dependence, cooperativeness, and regional economic-cultural differences - for achieving higher levels of Internet-based electronic data interchange (EDI) in the developing country of China. We employ survey data to empirically test both the individual and joint influence of these factors. The findings suggest that beyond Intra-organizational and external factors, managers and policymakers wanting to promote Internet-based EDI adoption in developing countries must also account for the inter-organizational relationships of firms and the economic and cultural circumstances of the regions in which they operate.

Chee, Suhaimi, and Quan (2016) studied that Electronic Commerce plays important roles in developed and developing countries. Some literature reviews explained that Small Medium Enterprises in developing countries do not obtain any benefits from e-Commerce technologies. In this adoption research, there are six variables used to explore the relationship with using the technological, organizational environmental framework.

Abou-Shouk, M.A., Lim, W.M., Megicks, P. (2016) examine the relationship between e-commerce adoption, perceived benefits, perceived barriers and environmental pressures. The results indicate that environmental pressures significantly affect the perceived benefits and barriers of e-commerce adoption, in addition to having an indirect effect on adoption behavior. Insights are provided into the nature of relationships between the key factors that determine e-commerce adoption and the extent to which they can be used to develop effective strategies for SME travel agent re-intermediation in the global travel market.

Abou-Shouk and Eraqi (2015) studied using structural equation modeling with a sample of 411 travel agents, aims to investigate the perceived barriers to e-commerce adoption in Egyptian travel agents. The research findings reveal that technology attributes and resource limitations are the most perceived barriers from managers' viewpoint.

Srinivasan (2015) investigates the relationship between subjective norms, technology anxiety, and other technology acceptance model variables to understand Indian consumers' attitudes and intention to shop for apparel via the Internet. Structural equation modeling was employed to evaluate the research model in determining model fit and significant paths. The subjective norm was found to have a major influence on perceived ease of use, contradictory to previous research. Perceived ease of use and perceived usefulness were found to be important determinants of the intention to shop for apparel online. Indian consumers did not report any technology anxiety. This article provides an initial insight for retailers and researchers that could aid in evaluating entry strategies into online apparel retailing. The research adds to the sparse literature concerning online apparel retailing and consumer shopping behavior in the growing Indian online apparel market.

Shi, B. (2013) explained that electronic commerce is one of the important means for small enterprises to innovate the business model. In order to more deeply understanding the phenomenon, this paper systematically reviews related research about key factors affecting small enterprises E-commerce adoption decision, establishes the theoretical model of small enterprises E-commerce adoption decision based on TAM model & TOE framework, and proposes the corresponding research hypothesis.

According to **P. K. Mishra, et al. (2012)** communication, organization, innovation, industry and the national characteristics factors are more important at the time the organization is deciding whether to adopt e-Commerce technology than in influencing the level of adoption of electronic commerce in the organization.

Hung et al.(2011) found that compatibility, formalization of the organization, organization scale, and pressure from the industry are the factors that affect adoption.

Mohanna et al. (2011) introduced a three-construct model to investigate e-commerce implementation in Iran. Their three constructs are managerial-organizational, technical infrastructures, and social-cultural background. The managerial-organizational variables are IT investment, international e-commerce strategy, establishing an e-commerce department, managers' commitment, and legal issues.

Andreu et al. (2010) found that customer pressure affects e-communication practices with travel agents' suppliers. E-communication and industry pressure are antecedents of e-procurement. E-procurement influences trust negatively, while e-communication does so positively. Additionally, examining the acceptance of online trading systems by travel agencies in Taiwan.

Lawrence and Tar (2010) found that a lack of adequate basic infrastructure, socio-economic factors, and a lack of a national governmental ICT strategy were all significant barriers to e-commerce adoption in developing countries.

There are several challenges to adopting e-commerce in travel and tourism industry. As per **Mamaghani (2009)**, the behavior of customers is changing and due to e-commerce, they swap agency in a few minutes if they are not happy with them. Customers expect the same service, the same treatment as offered by travel agencies through their outlet or the web. Different customers have different ways of surfing the internet as per their level of internet knowledge as well user-friendly website and website's rich contents. To adapt e-commerce by the company, they have to focus on their detailed of services, product availability, special offers and personalized information which are important factors that consumers search on the web. He further explained that "Individual e-commerce customers have been known to be demanding and unforgiving." As such, regular maintenance, upgrade of technologies and continuous improvement of customer service are the core factors for enhancing business and attracting more customers. Consumers these days are far more demanding and want convenience, speed, and a seamless buying experience. Main challenges as per Mamaghani is to create awareness among customers about the product, make them loyal.

Chen and McQueen (2008) found that the owner's attitude has an influence on the firm's e-commerce growth process. The higher is the stage of e-commerce adoption, and the greater is the need for owners to have a more positive attitude towards e-commerce.

Al-Qirim (2007) found complexity, compatibility, and the cost of technology to affect adoption levels. Pressure from suppliers/buyers was also found to be a significant environmental factor influencing e-commerce adoption.

As per a study by **Werthner H., Ricci F. (2004)**, this industry is adopting B2C (business to consumer) and application of B2B (business to business). This industry has changed the ways of doing business for traditional methods to modern way, i.e. e-commerce via the web and other online transaction software whereas other industries are still adopting the traditional way. The internet is changing the behavior of consumers making them less loyal, take less time for choosing and consuming the tourism services. As travel and tourism industry is service-oriented, companies

are implementing various new techniques to satisfy consumer needs and providing information to them through the web and different value generating strategies like value extraction, value capture, value addition and value creation. Travel and tourism are information based service orientated business and the product is termed as "confidence good". Pre-assessment of quality is impossible, however, due to the use of e-commerce feedbacks from consumers can be received in the short span of time and this service can be enhanced accordingly. Due to the adoption of e-commerce, travelers are becoming more dominant players as they can choose the destination and sites in few minutes, whereas travel agents, travel websites, etc. see the diminishing power in sales. However, they are providing the new market functionality using new technologies to attract more consumers. Many tour operators, travel agents, and online travel agents are using this strategy to attract more customers. Use of high-tech technologies needs massive investments and high-skill human resource, etc.

According to **Zhu and Kraemer (2002)**, the characteristics of the Internet are significantly different from those of pre-Internet information technologies. Before this Internet firms often used high cost, industry specific, stand alone and proprietary systems to communicate limited data with customers, suppliers, and business partners. Firms benefit from the Internet when they integrate electronic commerce capabilities and information and communication technology infrastructure. The Internet technologies are unique in terms of connectivity, interactivity, and open standards network integration (**Shapiro and Varian, 1999; Kauffman and Walden, 2001**) and enable a two-way, real-time information exchange between a firm and its customers and suppliers (**Straub et al, 2002**).

Firms benefit from the Internet when they integrate electronic commerce capabilities and information and communication technology infrastructure. It improves connectivity, compatibility, and responsiveness of their information systems and leads to greater efficiency and lower cost (**Zhu and Kraemer, 2002**).

Electronic commerce capabilities reflect a firm's strategic initiatives to use the internet to share information, facilitate the transaction, improve customer service and strengthen supplier integration (**Zhu and Kraemer, 2002**).

According to **Buhalis and Licata (2002)**, travel agents gain some advantages from using the internet, namely, the flexibility and convenience of service distribution, reaching customers, decreased distribution costs, customer interaction, and identifying target customers.

Raymond (2001) investigated the determinants of e-commerce adoption by Canadian travel agents, looking at informational, transactional, and strategic websites. The findings revealed that business partners' influence and environmental uncertainty (environmental context) affect informational and transactional implementation, whereas the travel agencies' marketing strategies, type of ownership, nature of business, perceived advantages and technology attribute (in the organizational context) all affect strategic implementation.

Coleman (1998) postulates that the website is evolving from the first generation sites of "organizational centric" and "Internet entry point" type of home pages, to the ultimate "business-centric" and "marketplace integration" type of delivery platform integration.

Cronin (1996) studied that, as a firm's website serves as a gateway for dealing with customers and business partners, these electronic commerce capabilities should be reflected in the functionality of the website. This functionality may range from static information to online order tracking and from digital product/service catalogs to integrate with suppliers database

Mishina (1998) found that the farm’s website functionalities were significantly different, even within the same industries. The sophistication and complexity of the firm’s website reflect the strategic priorities of the firm (Angehrn, 1997). However, the evolution of the website is not yet clearly understood.

The study reflected on few of the authors germane to the subject and had extracted the main variables from the dimension and constructs of the research study. The listed articles cited with authors are the shortlisted sample of the literature survey conducted, and is representative.

Table 2.1: Twenty Four Perceived Benefits of E-commerce Adoption with their Sources from Literature Review

| Constructs | Dimension | Variables | Researcher |
|-------------------------|----------------------------------|--|--|
| Benefits | Essential Benefits | Attracting new investors | APEC, 1999, Azam, 2007, Patricia, 2008 |
| | | Ensuring future survival | Stansfield and Grant, 2003a |
| | | Sales revenue & profit growth | Heung, 2003, Karagozoglu and Lindell, 2004, Straub and Klein, 2001, Ifinedo, 2011 |
| | | Enable & facilitate collaboration | Bourgouin,2002, Kvainauskaite et al., 2005, Mehrtens et al., 2001, Pease and Rowe, 2005 |
| | | Reducing operational cost | Beatty et al., 2001, Beekhuyzen et al., 2005, Bourgouin, 2002, Buhalis, 2002, Dyerson and Harindranath, 2007, Harindranath et al., 2008, Karanasios, 2008, Migiro and Ocholla, 2005, Simpson and Docherty, 2004, Stansfield and Grant, 2003b, Straub and Klein, 2001, Wiertz, 2001 |
| | | Support effective re-intermediation | Álvarez et al., 2007 |
| | Continuation of current benefits | Poon and Joseph, 2001 | |
| | Market Related Benefits | Improve distribution channel | Ayeh, 2006, Beckinsale and Levy, 2004, Bourgouin, 2002, Collins et al., 2003, Kajogbola, 2004, Karagozoglu and Lindell, 2004, Saffu and Walker, 2008, Scarborough and Zimmerer, 2003 |
| | | Establishing reputation in global market | Ayeh, 2006, Beckinsale and Levy, 2004, Bourgouin, 2002, Collins et al., 2003, Kajogbola, 2004, Karagozoglu and Lindell, 2004, Saffu and Walker, 2008, Scarborough and Zimmerer, 2003 |
| | | Enhancing customer satisfaction | Daniel et al., 2002, Dyerson and Harindranath,2007,Harindranath et al., 2008, Jin, 2007, Karagozoglu and Lindell, 2004, Migiro and Ocholla, 2005, Quayle, 2002, Saffu and Walker, 2008, Stansfield and Grant, 2003b, Teo et al., 2009, Wesrthner and Klein, 1999 |
| Customizing services to | | Pease and Rowe, 2005 | |

| | | | |
|--------------------------------------|------------------------------|---|--|
| | | customer needs | |
| | | Encouraging customer loyalty | APEC, 1999 |
| | | Increasing customer base | Jin, 2007, MacGregor, 2004, Zheng et al., 2004, Kim, 2005 |
| | | Penetration to global Market | Migiro and Ocholla, 2005, Çakar and Ertürk, 2010, Thulani et al., 2010 |
| | Competition Benefits | Increase Competitive advantage | Beatty et al., 2001, Daniel et al., 2002, Karagozoglu and Lindell, 2004, Kartiwi and MacGregor, 2007, Lacovou et al., 1995, MacGregor, 2004, Migiro and Ocholla, 2005, Quayle, 2002, Raymond, 2001, Simpson and Docherty, 2004 |
| | | Staying ahead of competitors | Kvainauskaite et al., 2005 |
| | Internal Efficiency Benefits | Improve internal operations efficiency | Beatty et al., 2001, Collins et al., 2003, Harindranath et al., 2008, Teo et al., 2009 |
| | | Effective partnership with partners & suppliers | Daniel et al., 2002, Dyerson and Harindranath, 2007, Harindranath et al., 2008, MacGregor, 2004, Saffu and Walker, 2008 |
| | | Improve accountability | Quayle, 2002 |
| | | Enhance employee satisfaction | Dyerson and Harindranath, 2007, Harindranath et al., 2008 |
| | | Improve decision making process | Grandon and Pearson, 2004, Kajogbola, 2004, Saffu and Walker, 2008 |
| | | Improve information & knowledge sharing | Daniel and Wilson, 2002 |
| | | Faster transactions processing | Álvarez et al., 2007, Raymond, 2001 |
| Building the firm's ICT capabilities | The e-Regions Trust, 2006 | | |

Table 2.2: Eighteen Perceived Environmental Pressure of E-commerce Adoption with their Sources from Literature Review

| Constr ucts | Dimension | Variables | Researcher |
|------------------------|----------------------------------|--|--|
| Environmental Pressure | Customer pressures | Continuous demand for improved service quality | Poon and Joseph, 2001, Beckinsale and Levy, 2004, Bigne et al., 2008, Daniel et al., 2002, Dyerson and Harindranath, 2007, Nour, 2002, Quayle, 2002) |
| | | Increased pressures from new types of customers | Simpson and Docherty, 2004, Vrana and Zafiroopoulos, 2006, Buhalis and Deimezi, 2004 |
| | | Higher level of buyer-seller interaction | Vrana and Zafiroopoulos, 2006 |
| | Competitor pressures | Responding to competitor pressures | Beekhuyzen et al., 2005, Daniel et al., 2002, Poon and Joseph, 2001, WTO, 2001, Buhalis and Deimezi, 2004, Simpson and Docherty, 2004, Jin, 2007) |
| | | The fear of being behind and level of competition among the industry firms | Bigne et al., 2008, Patricia, 2008, Teo et al., 2009, Wesrthner and Klein, 1999) |
| | | Emergence of new virtual intermediaries | Barnett and Standing, 2001 |
| | Suppliers and partner pressures | Business partner influence | Beckinsale and Levy, 2004, Beekhuyzen et al., 2005, Poon and Joseph, 2001, Raymond, 2001, Teo et al., 2009, Rao et al., 2003) |
| | | Suppliers' development programmes | Quayle, 2002, Vrana and Zafiroopoulos, 2006) |
| | | Growing market changes | Rao et al., 2003 |
| | Environment and industry changes | Rapidly industry changes | Saffu and Walker, 2008, Simpson and Docherty, 2004, Kuan and Chau, 2001, Grandon and Pearson, 2004) |
| | | Business environmental uncertainty | Raymond, 2001 |
| | | Adapting to changes in technology | Karagozoglu and Lindell, 2004, Law et al., 2004 |
| | | Globalization & modernisation consequences | Nour, 2002, Poon and Joseph, 2001) |
| | | Governmental rules and regulations | Kuan and Chau, 2001, Saffu and Walker, 2008, Teo et al., 2009, Grandon and Pearson, 2004 |
| | Internal priorities | Business strategy and planning | Quayle, 2002 |
| | | Employees' pressure | Beckinsale and Levy, 2004 |
| | | Owner/manager Push | Beckinsale and Levy, 2004 |
| | | Future survival of travel agents | Bennett and Lai, 2005, Bigne et al., 2008, Heung, 2003, Law et al., 2004, Stansfield and Grant, 2003b, Warden and Tunzelana, 2004) |

Table 2.3: Twenty one Perceived Barriers of E-commerce Adoption with their Sources from Literature Review

| Constr ucts | Dimension | Variables | Researcher |
|-------------|-------------------------------|---|---|
| | Resource Limitations | Restriction on finance as an SME | Ayeh, 2006, Grandon and Pearson, 2004, Jin, 2007, Migiro and Ocholla, 2005, Skoko et al., 2008, Stansfield and Grant, 2003b, Stockdale and Standing, 2006, Thulani et al., 2010, Grandón et al., 2011 |
| | | Lack of IT-travel skilful labour | APEC, 1999, Hadjimanolis, 1999, SAGE, 1996, Samoilenko and Osei-Bryson, 2008, Skoko et al., 2008, Heung, 2003, Warden and Tunzelana, 2004 |
| | | Time required to changing | Heung, 2003, MacGreogor, 2004, APEC, 1999, Hadjimanolis, 1999, Kartiwi and MacGregor, 2007, Wahid, 2007). |
| | | Cost of Adoption | AlGhamdi et al., 2011, Ghobakhloo et al., 2011 |
| | Internal Business Environment | Business Characteristics (Small size, remote location...) | Beckinsale and Levy, 2004, Heung, 2003, Simmons et al., 2008 |
| | | Lack of technological readiness | Nour, 2002, Rao et al., 2003, Anckar, 2003, Chen and McQueen, 2008, SAGE, 1996, Samoilenko and Osei-Bryson, 2008, Stockdale and Standing, 2006, Wahid, 2007) |
| | | Lack of business planning and strategy | Skoko et al., 2008, Zheng et al., 2004 |
| | | Lack of awareness of e-commerce adoption benefits | Ayeh, 2006, Kula and Tatoglu, 2003, Simmons et al., 2008, Stansfield and Grant, 2003b, Stockdale and Standing, 2006, Thong, 1999, Chen and McQueen, 2008, Zheng et al., 2004). |
| | | Employees' resistance | Dyerson and Harindranath, 2007, Heung, 2003, Warden and Tunzelana, 2004 |
| | | Risk taking reluctance | Pilat, 2003, Zheng et al., 2004 |
| | External Business Environment | Legal concerns | Azam, 2007, Dowler and Lawrence-Slater, 1998, Heung, 2003, Ghamatrasa, 2006, Warden and Tunzelana, 2004 |
| | | Insecurity and lack of confidentiality in online transactions | Azam, 2007, Chen and McQueen, 2008, Dowler and Lawrence-Slater, 1998, Ghamatrasa, 2006, Hadjimanolis, 1999, Kula and Tatoglu, 2003, MacGreogor and Vrazalic, 2005, Mirchandani and Motwani, 2001, Rao et al., 2003, SAGE, 1996, Webster et al., 2006, Nour, 2002) |
| | | Business environment (governments and markets regulations) | Ayeh, 2006, Dutta and Coury, 2003 |

| | | |
|-----------------------|--|--|
| Technology Attributes | Lack of external advice and support | Chen and McQueen, 2008, Stansfield and Grant, 2003a, Dutta and Coury, 2003 |
| | Lack of public infrastructure readiness | APEC, 1999, Azam, 2007, Chen and McQueen, 2008, Dutta and Coury, 2003, Rao et al., 2003 |
| | Lack of proven successful role models | SAGE, 1996, Zheng et al., 2004 |
| | Customer Issue (trust & satisfaction) | Álvarez et al., 2007, Zeithaml et al., 2002 |
| | Inability of e-commerce trialability | Azam, 2007, Kendall et al., 2001, MacGregor and Vrazalic, 2005, Moore and Benbasat, 2001, Rogers, 1995 |
| | Complexity (not easy to use) | Azam, 2007, Beckinsale and Levy, 2004, Davis et al., 1989, Dyerson and Harindranath, 2007, Kendall et al., 2001, MacGregor and Vrazalic, 2005, Moore and Benbasat, 2001, Rao et al., 2003, Venkatesh and Davis, 2000 |
| | Inability of e-commerce reversibility | MacGregor and Vrazalic, 2005 |
| | Inability of e-commerce modifiability | MacGregor and Vrazalic, 2005 |
| | Inability of e-commerce observability | Azam, 2007, MacGregor and Vrazalic, 2005, Rogers, 1995 |
| | E-commerce is not suitable to the nature of services | Álvarez et al., 2007, Ayeh, 2006, Hadjimanolis, 1999, Heung, 2003, Kartiwi and MacGregor, 2007, Nour, 2002, Tucker, 2008 |

3. Research Gap

This research study contributes to filling the gap identified in the literature review that few existing studies are exploring the factors that influence technology adoption in developing countries; and particularly in the travel and tourism sector in Odisha. From the literature review, it has been found that there are three main constructs in the adoption of e-commerce. They are perceived benefits, perceived barriers, and environmental pressure. There are few existing studies available exploring all the factors affecting adoption of e-commerce in travel and tourism sector in Odisha. There are few studies on the issues and challenges in adopting e-commerce in travel and tourism sector. As Odisha has several sources and triggers for attracting tourists, few studies have been done to motivate the travel agencies in Odisha adopting e-commerce to attract foreign tourists.

4. Conclusion

This research paper has made a review of literature for understanding on the adoption of electronic commerce in travel agencies in Odisha; at the firm level. It is observed that most of the empirical studies are derived from Technology Organization and Environment (TOE) framework and are not on the current approach. Hence, due to the increase in customer requirements, change in the technology and due to different new environmental pressures, more extensive analysis of TOE is required for the adoption of electronic commerce by the SMEs particularly the travel agencies. The research study has probed in to the perspective approach to TOE. This study may help travel agencies in Odisha for successful adoption of Electronic Commerce.

References

1. Bibhuti Bhusan Mishra, Uma Sankar Mishra and P K Mishra, 2012, "PERCEPTION AND ADOPTION OF E-COMMERCE IN INDIAN SMEs: A STUDY IN THE STATE OF ORISSA", International Journal of Advanced Computer and Mathematical Sciences, ISSN 2230-9624. Vol 3, Issue 2, 2012, pp 227-236.
2. Abou-Shouk, M.A., Lim, W.M., Megicks, P. 2016, "Using competing models to evaluate the role of environmental pressures in e-commerce adoption by small and medium sized travel agents in a developing country", Tourism Management, Volume 52, February 01, 2016, Pages 327-339.
3. Abou-Shouk, M. , Eraqi, M.I. 2015, "Perceived barriers to e-commerce adoption in SMEs in developing countries: The case of travel agents in Egypt, International Journal of Services and Operations Management", Volume 21, Issue 3, 2015, Pages 332-353.
4. Srinivasan, R. 2015, "Exploring the Impact of Social Norms and Online Shopping Anxiety in the Adoption of Online Apparel Shopping by Indian Consumers", Journal of Internet Commerce, Volume 14, Issue 2, 3 April 2015, Pages 177-199.
5. Tarafdar, M., Vaidya, S.D. 2006, " Challenges in the adoption of E-Commerce technologies in India: The role of organizational factors ", International Journal of Information Management, Volume 26, Issue 6, December 2006, Pages 428-441.
6. Chee, L.S. , Suhaimi, B.A. , Quan, L.R. 2016, " Understanding the determinants of e-Commerce Adoption: Evidence from manufacture sector in West Malaysia", Indian Journal of Science and Technology, Volume 9, Issue 10, 1 March 2016, Article number 88075.
7. Biswajit Das and A Pani 2015 " Role of Hotels and Resorts to Promote Ancient Ayurveda Through Health Tourism: A Special Reference to Odisha", Purushartha (A Journal of Management, Ethics and Spirituality), ISSN 0975-024X, Vol. VII, No. 2, September 2014, February 2015, SMS-Varanasi (School of Management Sciences), pp.114-123, purusartha@smsvaranasi.com (Indexed with Scopus, Elsevier and UGC).
8. March L. To, E. W. T. Ngai, 2006, "Predicting the organizational adoption of B2C e-commerce: an empirical study", Industrial Management & Data Systems, Vol. 106 Iss: 8pp. 1133-1147.
9. B.Das., Pani,A. and Sharma, M. 2015, "Changing Dynamics of Hospitality & Tourism Education and its Impact on Employability", Parikalpana-KIIT Journal of Management, Selected papers of NMC -2014), Vol:11 (i), NMC Special Issue, pp.1-12, Jan-June, 2015, ISSN 0974-2808, Bhubaneswar, India.
10. Mohamed Ahmed Abd-Elraouf Abou-Shouk, 2012, "Investigating E-Commerce Adoption in Small and Medium-Sized Tourism Enterprises: A Case of Travel Agents in Egypt".
11. Das,B., Deo, M. and Pani,A. 2014, "Tourism and Hospitality Development in the Rock Triangle of Odisha by SHG-NGO and PPP Management for Sustainability through Alleviating Poverty: A Developmental Perspective Analysis", The Indian Economic Journal (IEA) (Journal of the Indian Economic Association), Sub-Theme: Sustainable Roots Out of Poverty : Past Experiences and Future Challenges, Special Issue, December-2014, ISSN: 0019-4662 (Regd. with the Registrar of Newspapers for India-RNI Regn. No. 4691/87, Udiapur, Rajasthan (Published and Presented).

12. Alice Phiri Shemi, 2012, "Factors Affecting E-commerce Adoption in Small and Medium Enterprises: An Interpretive Study of Botswana".
13. Miller, Roger (), "*The Legal and E-Commerce Environment Today*", Thomson Learning, pp. 741 pages.
14. Turban E, Lee J King D and Chung H M (1999)," *Electronic Commerce: A Managerial Perspective*", Prentice Hall Ubois, Jeff (1995), "*Wheels of Commerce- an Interview with commerce*", pp 62-69.
15. Megna, Michelle (2008); "E-Commerce Trends for 2008 and 2009".
16. Oliveira, T and Martins, M, F. "Literature Review of Information Technology Adoption Models at Firm Level" *The Electronic Journal Information Systems Evaluation* Volume 14 Issue 1 2011, (pp110-121).
17. Saulnier, M. & Rosson,P. (2006), 'EBusiness Readiness in Canadian SMEs', in M. Bhattacharya (ed.) *E-Innovation : Trends and Applications* , The Icfai University Press, Hyderabad. Pp. 204 – 233.
18. Subramanian, G.H. and Nosek, J.T. (2001), 'An Empirical study of the Measurement and Instrument of Perceived Strategy Value of Information Systems', *Journal of Computer Information Systems*, (Spring), pp. 64 – 69.
19. Grandon, E.E. & Pearson, J.M. (2004),"Electronic Commerce Adoption: An Empirical Study of Small and Medium US Business", *Information & Management*, Vol. 42, pp. 197 – 216.