



Tourist attitudes toward the use of e-Commerce for tourism in Thailand

Panee Suanpang
Faculty of Science & Technology
Suan Dusit Rajabhat University
Bangkok, Thailand
dtechpannee@yahoo.com

ABSTRACT

The aim of this paper is to study travelers' attitudes toward the use of e-Commerce for tourism in Thailand. The study used mixed methodology quantitative research by collecting data from 510 domestic tourists; 400 international tourists and used qualitative research by collecting data from in-depth interviews. The result found that domestic tourists use e-Commerce at a higher level than international tourists for booking hotels, tours, transportation and for buying souvenirs; however, international tourists use e-Commerce at a higher level than domestic tourists for booking at restaurants. The payment method found that domestic tourists pay in cash, do bank transfers and do mobile payments at a higher level than international tourists, but international tourists pay by credit card and use counter services more than domestic tourists. The result of the statistics test in order to compare tourism e-Commerce system needs shows that there is significant difference between the attractiveness of websites; updated information; credit card security system and product and service items. The result of the statistics test concerning the comparison of traveler attitudes towards the use of e-commerce for tourism shows the most significant differences in generating fast and effective communication: e-Commerce can produce product reliability; has a safe payment system; has safe information privacy; can develop good image of product and services and can create product and service identification.

Keywords

e-Commerce; tourism; tourist; attitude toward; Thailand



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INTRODUCTION

e-Commerce, or 'Electronic Commerce' (EC) involves doing business transaction via the Internet. e-Commerce involves the process of selling and buying, or exchanging products, merchandise, services and information via computer networks, especially the Internet [1][2]. e-Commerce has changed the ways of industry doing business via Internet. e-Commerce has changed several dimensions of business and industry, including economic, market, and industry structures, product and services flow, consumer segmentation, consumer values, consumer behavior and labor markets [1]. e-Commerce has been used in many industries such as business, retail, entertainment, education, healthcare and tourism.

e-Commerce plays an important role in the tourism industry, worldwide. e-Commerce usage in tourism refers to Internet based business systems which include distribution systems carried out by electronics, based on tourism information and e-Commerce banks [1][3]. The application of e-Commerce in the tourism industry makes personalized travel possible, meaning that tourists can easily communicate with the tourism businesses via websites. They can arrange transportation, book accommodations or air tickets, and other tourism business transactions, at any time and/or any place [4]. Moreover, a few applications which need to be upgraded from time to time include mobile payment applications, short information services and global positioning systems (GPS) which could revolutionize e-commerce for travelers in the world. [4][5].

e-Commerce usage in tourism is currently popular, and will continue to exist in the future since Internet and electronic communication technology developments are being made yearly as e-Commerce in travel is being used for providing information, exchanging electronic data, online ordering, online booking, e-accounts and online payments. It remains a key growth point in the tourism industry [4][6].

Internet users in Thailand in 2012 numbered 20,100,000; mobile subscribers, 78,667,910; broadband subscribers, 3,390,000; and Facebook users, 18,271,480. Internet Banking accounts numbered 6,645,161, with a total of 11.69 million transactions and the amount of transactions numbering 1.23 billion baht. Mobile banking numbered 864,312 accounts, with 3.68 million transactions at the amount of 49 billion baht [7].

e-Commerce usage in Thailand in 2011-2012 is estimated to be at 67% and m-Commerce at 37%, which makes Thailand one of the top growing countries in Asia [7]. e-Commerce for tourism expenditures in Thailand grew 7,675 million baht (6.0 %) in 2006, 18,182 million baht (9.4%) in 2007, 10,570 million baht (4.4%) in 2008 and 16,176 million baht (5.6%) in 2010 [8]. Moreover, 13.8% of tourism business used e-commerce, 7.5% in the tourism business and 6.5% in hotels and accommodation [9].

The trend of the number of international tourists coming to Thailand has been increasing. In year 2012, there were 22,353,903 international tourist arrivals in Thailand and 91,548,294 domestic tourists [10]. It is predicted that the number of international and domestic tourists in Thailand will have increased by at least 5% in year 2013. e-Commerce usage in tourism statistics has shown that the trend of e-Commerce in tourism is growing. Therefore, it would be beneficial to study how consumers or tourists use e-Commerce to support tourism. The aim of this paper is to study travelers' attitudes toward the use of tourism e-Commerce in Thailand.

E-COMMERCE IN TOURISM

Tourism e-Commerce Model

The tourism e-Commerce model can be divided into a traditional model and a revolutionary model; the vertical axis represents the degree of innovation and the horizontal axis represents the strategic choice shown in Figure 1 [1]. The tourism e-Commerce model shows that e-Commerce has changed in the way of doing tourism business, for example, the use of GDS (Global Destination Systems) for information management by travel agencies and airlines via websites such as e-Travel, TripAdvisor, and business travelers [1]. e-Commerce tourism websites are changing their ways to satisfy consumer needs, as it allows for information of the entire tourism value chain to create numerous value creation strategies [1][10].

Value extraction: This strategy is used in order to increase efficiency and to reduce costs, including process automation such as self check-in for hotels or airlines. The e-Commerce transaction is processed via e-Shop or through the websites of tourism businesses.

Value capture: This strategy uses data mining to forecast sales information to support decision making. The e-Commerce transaction is processed via e-Mall.

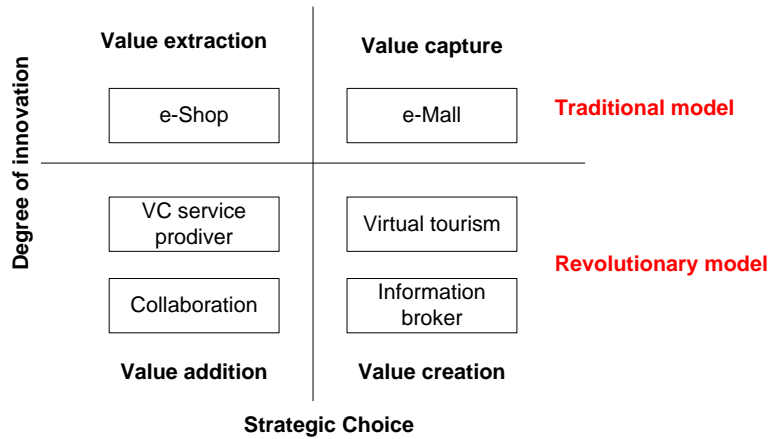


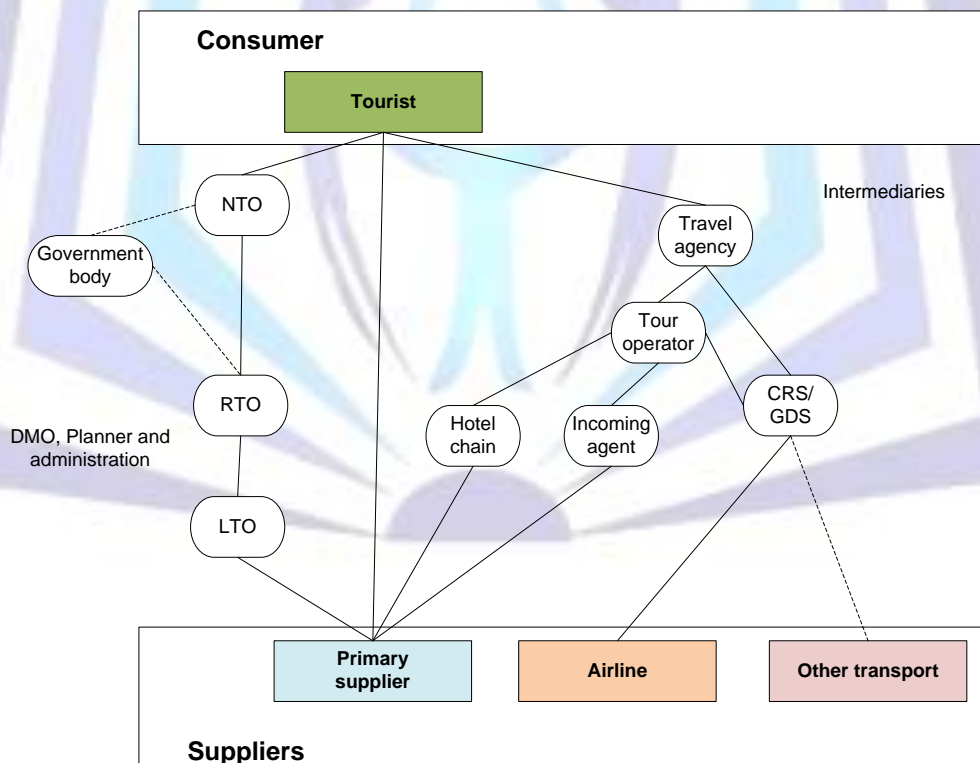
Figure 1: Tourism e-Commerce model

Value addition: This strategy involves a linear combination of products and services to create product bundles, for example, linking mobile services to websites in order to provide information and collaboration to the tourism business.

Value creation: This strategy focuses on using e-Commerce to support virtual tourism and information brokers, for example, tourists participating in service definition and destination planning.

Structural view of the market

Figure 2 shows the differentiation of the supply (tourism business) and demand (tourist) sides and intermediaries. The nodes indicate the relevant types of players in the tourism industry, and links mark the relationship and information flow between the nodes [1][11].



NTO = National Tourism Organization
 CRS/GDS = Central Reservation System / Global distribution Systems
 RTO = Regional Tourism Organization
 LTO = Local Tourism Organization

Figure 2: Structural view of the market [11]



The structural view of the market shows its design as a primary supplier including hotels, restaurants, spas, transportation and others business. Airlines and other forms of transportation have big importation roles but function on the same level as primary suppliers. Travel agents send information to tour operators and CRS/GDS (Central Reservation System/ Global Distribution Systems), tour operators send information to CRS/GDS and incoming agents, and send to hotel chains for booking. CRS/GDS send information to airlines and other transportation businesses. Each market player is affected [1][11].

- Tourists are addressed as having a key important role on the demand side; they play a more active role in services, such as buying or booking reservation tickets.
- Travel agents use the Internet as the sale channel and provide information about products and services. Web sites provide new markets and new functions such as personalization intelligent tools for travelers.
- Destination management organizations have developed cooperation models within destinations.
- CRS/GDS are strategies for linking major tourist websites in order to increase transaction volume.
- Primary suppliers will increase alliances and support electronic direct sales, increasing price competition.

METHODOLOGY

The study uses a mixed methodology of quantitative research by collecting data from 910 questionnaires and qualitative research by collecting data from in-depth interviews with 15 tourists. Figure 3 shows the research framework of the study. The dependent variables include age, gender, education level, income/month and experience of using the Internet. The independent variables include the behavior of e-Commerce usage for tourism and demand for the usage of e-Commerce for tourism.

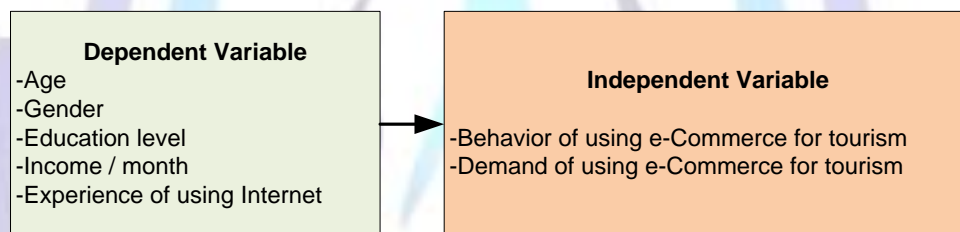


Figure 3: Research framework

Table 1 shows the populations of domestic and international tourists totaling 107,389,977 people; the sample includes 910 people using Taro Yamane [12] confidential 95%. The reliability test by Cronbach's Alpha = .973.

Table 1. Population and sample

Tourists	Population	Sample*
Domestic	91,548,294	510
International	15,841,683	400
Total	107,389,977	910

RESULT

Table 2 shows the result of the demographic of the domestic tourists: Most of the domestic tourists are female 53.53%; the age range under 30 years old is highest at 40.59%, most having graduated with a bachelor's degree 62.94%. Most domestic tourists are working in the business sector (29.61%) and have an average income of 10 - 20,000 baht/month.

Table 2. Demographic of the domestic tourist

		Frequency (n = 510)	Percent
Gender	Male	237	46.47
	Female	273	53.53
Age	> 30	207	40.59



	30 - 39	176	34.51
	40 - 49	81	15.88
	< 49	46	9.02
Educational level	Undergraduate	138	27.06
	Bachelor's degree	321	62.94
	Graduate degree	50	9.80
	N/A	1	0.20
Occupation	Business sector	151	29.61
	Government officer	149	29.22
	Business owner	97	19.02
	Student	69	13.53
	House keeper	22	4.31
	Other	22	4.31
Income/month (baths)	> 10,000	102	20.00
	10,000 – 20,000	218	42.75
	20,001 – 30,000	108	21.18
	30,001 – 40,000	56	10.98
	< 40,000	25	4.90
	N/A	1	0.20

Table 3 shows the result of the demographic of international tourists, with most international tourists coming from Europe 61%. Most respondents are male, aged 30-39 years old (57.50%); the highest percentage of respondents having graduated with a bachelor's degree (37.25%); the highest percentage of respondents are students (23%) and the highest percentage of respondents have an income of 901 – 1,200 US dollars/month at 15.75%.

Table 3. Demographic of international tourist

		Frequency (n = 400)	Percent
Continent	Europe	244	61.00
	North America	52	13.00
	Oceania	25	6.25
	Asia	68	17.00
	South America	6	1.50
	Africa	5	1.25
Gender	Male	201	50.25
	Female	197	49.25
Age	> 30	2	0.50
	30 - 39	230	57.50
	40 - 49	114	28.50
	< 49	36	9.00
Education	Under graduate	119	29.75
	Bachelor degree	149	37.25



	Graduated	112	28.00
	N/A	20	5.00
Occupation	Student	92	23.00
	Government officer	19	4.75
	Retried	19	4.75
	Business sector	81	20.25
	Business owner	40	10.00
	Freelance	32	8.00
	Unemployed	41	10.25
	N/A	5	1.25
	Other	71	17.75
Income / month (US dollar)	> 300	58	14.50
	300 – 600	36	9.00
	601 – 900	44	11.00
	901 – 1,200	63	15.75
	1,201 – 1,500	50	12.50
	1,501 – 2,000	41	10.25
	2,001 – 2,800	43	10.75
	< 2,800	51	12.75
	N/A	14	3.50

Table 4: The result of e-Commerce usage shows that domestic tourists use e-Commerce at a higher level than international tourists for booking hotels (63.53%), booking tours (37.45%), booking transportation (26.67%) and buying souvenirs (21.76%), but international tourists using e-Commerce show a higher level than domestic tourists for booking restaurants (40%).

Table 4. Tourist usage of tourism e-Commerce

e-Commerce tourism website	Domestic (n = 510)		International (n = 400)	
	Frequency	Percent	Frequency	Percent
Accommodation/Hotel	324	63.53	186	46.50
Restaurant	203	39.80	160	40.00
Travel agency	191	37.45	99	24.75
Transportation	136	26.67	51	12.75
Souvenir shop	111	21.76	17	4.25
N/A	10	1.96	21	5.25

Table 5 illustrates the payment method of e-Commerce tourism websites, showing that domestic tourists pay in cash at a higher level than international tourists (12.44%), as well as bank transfer (44.89%) and mobile payment (5.78) but international tourists use credit card payment (61.42%) and counter services (26.77%) more than domestic tourists.



Table 5. Payment method

e-Commerce tourism website	Domestic (n = 510)		International (n = 400)	
	Frequency	Percent	Frequency	Percent
Credit card	77	34.22	78	61.42
Counter services	50	22.22	34	26.77
Pay by cash	28	12.44	10	7.87
N/A	7	3.11	5	3.94
Bank transfer	101	44.89	-	-
Mobile payment	13	5.78	-	-

Table 6 shows the result of the statistics test on the comparison of tourism e-Commerce system needs, with the e-Commerce system showing significant difference (t = -2.496) including the attractiveness of websites (t=-2.496) updated information (t= -3.470) and credit card security systems (t= -2.589). The product and service items show significant difference (t = -2.155).

Table 6. The comparison of tourism e-Commerce system needs

Tourism e-Commerce need	Traveler				Statistics test	
	Domestic (n = 510)		International (n = 400)		t	p
	Mean	SD	Mean	SD		
e-Commerce System	3.97	0.74	4.09	0.67	-2.496*	.013
-Attractive website	3.90	0.82	4.10	0.81	-3.470*	.001
-Updated information	4.04	0.82	4.13	0.84	-1.483	.138
-Information privacy	3.98	0.91	4.05	0.84	-1.161	.246
-Show the process of purchasing	3.97	0.90	4.05	0.80	-1.508	.132
-Credit card security system	3.95	1.01	4.11	0.84	-2.589*	.010
Product and services	3.98	0.79	4.08	0.64	-2.155*	.031
-Variety of product and services	4.05	0.83	4.13	0.84	-1.439	.150
-Show information of price	4.03	0.90	4.19	0.79	-2.713*	.007
-Reliability of the product and services	3.97	0.96	4.06	0.83	-1.582	.114
-Product and service guarantee	3.96	0.96	4.02	0.82	-1.025	.306
-Product and service continuous improvement	3.88	0.91	4.00	0.80	-2.036*	.042
Purchasing	3.96	0.81	4.05	0.66	-1.846	.065
-24 hour operation	3.96	0.95	4.07	0.85	-1.783	.075
-Convenience in payment	4.01	0.87	3.98	0.85	.519	.604
-Confidence in payment system	3.98	1.02	4.07	0.85	-1.495	.135
-Product and service tracking system	3.91	0.93	4.05	0.78	-2.473*	.014
-Guarantee for lost products	3.92	1.07	4.06	0.82	-2.225*	.026
Utility	3.90	0.77	3.97	0.64	-1.333	.183
-Convenience in searching information	4.04	0.80	4.05	0.82	-.278	.781
-Complete information of the product and service	4.03	0.89	4.06	0.81	-.439	.661



-Price comparison	3.94	0.87	4.11	0.81	-2.878*	.004
-Promotion	3.76	0.96	3.84	0.87	-1.176	.240
-Accumulation of bonus points	3.74	1.02	3.78	0.81	-.610	.542
Total	3.95	0.71	4.05	0.58	-2.163*	.031

* Significant <.05

Table 7 shows the result of the statistics test on the comparison of traveler attitudes towards the use of tourism commerce, showing that most have significant difference including e-Commerce generating fast and effective communication (t= 3.255*); e-Commerce product reliability (t= -7.181*); e-Commerce having a safe payment system (t=-10.623*); e-Commerce having safe information privacy (t= -9.038*); e-Commerce can develop good image of products and services (t= -4.065*) and e-Commerce can create products and service identification (t=-3.180*).

Table 7. The comparison of traveler's attitude towards of using tourism e-commerce

Issues	Traveler				Statistic test	
	Domestic (n = 510)		International (n = 400)		t	p
	Mean	SD	Mean	SD		
e-Commerce can save time and process of purchasing	4.07	0.76	4.09	0.70	-.417	.677
e-Commerce can generate fast and effective communication	4.14	0.75	3.98	0.73	3.255*	.001
e-Commerce can influence consumers to purchase products and services	3.92	0.83	3.96	0.82	-.715	.475
e-Commerce can produce product reliability	3.62	0.92	4.04	0.79	-7.181*	.000
e-Commerce has safe payment system	3.45	1.06	4.10	0.78	-10.623*	.000
e-Commerce has safe information privacy	3.50	1.03	4.07	0.82	-9.038*	.000
e-Commerce can develop a good image of products and services	3.76	0.83	4.05	0.81	-5.118*	.000
e-Commerce can build customer relationship management	3.80	0.84	4.03	0.83	-4.065*	.000
e-Commerce can create products and service identification	3.88	0.87	4.06	0.80	-3.180*	.002
Total	3.78	0.69	4.04	0.60	-5.916*	.000

* Significant <.05

CONCLUSION

The tourism industry has illustrated how e-Commerce has changed the structure of tourism and in the process has created new business opportunities. An e-Commerce application makes personalized links between tourists and businesses in order to make reservations. This paper has addressed travelers' attitudes toward the use of tourism e-Commerce in Thailand. The result has found that domestic tourists use e-Commerce at a higher level than international tourists for booking hotels, tours, transportation and for buying souvenirs but international tourists use e-Commerce at a higher level than domestic tourists for booking restaurants. The payment method has found that domestic tourists pay in cash at a higher level than international tourists, as well as bank transfers and mobile payments, but international tourists make credit card payments and use counter services at a higher level. In conclusion, the tourism business, especially small and medium enterprises (SMEs) should implement e-Commerce in tourism businesses in order to improve the quality of services and to make their businesses more effective and efficient.



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Author' biography



Panee Suanpang is working as an assistant professor in the Faculty of Science & Technology, Suan Dusit Rajabhat University. She handles professional subjects like Strategy Information Systems, Management Information Systems, System Analysis and Design, Educational Technology, Knowledge Management, e-Commerce and Technology in Tourism. She finished her Bachelor in Information Technology (BIT) and her Master of Information Systems (MIS), at Griffith University, Australia. She finished her Doctor of Technology in Science (DTech) at the University of Technology, Sydney, Australia. She is a member of the IEEE professional association