

Working paper no. 09 - 2006

Impact analysis of e-tourism in Bhutan

by

Kim Viborg Andersen & Helle Zinner Henriksen



**Copenhagen
Business School**
HANDELSHØJSKOLEN

Department of Informatics
Howitzvej 60
DK - 2000 Frederiksberg

Impact analysis of e-tourism in Bhutan

Kim Viborg Andersen

Professor, Ph.D.

&

Helle Zinner Henriksen

Associate Professor, Ph.D.

Department of Informatics, Copenhagen Business School

60 Howitzvej, DK – 2000 Frederiksberg, Denmark

E-mail: andersen@cbs.dk; hzh.inf@cbs.dk URL <http://www.cbs.dk>

June 29, 2006

E-Bhuti: E-governance Bhutanese Information System

Asia-wide Programme: EU-Asia IT&C

Contract reference no.: ASIE/2004/90311 (December 15, 2004 – May 15, 2006)

Beneficiary: Copenhagen Business School, Denmark

Preface

This report on *Impact analysis of e-tourism in Bhutan* has been produced as part of the E-Bhutis project (E-governance Bhutanese Information System) supported by the Asia-wide Programme EU-Asia IT&C (Contract# ASIE/2004/90311).

The report is an input to the improvement of the governance of the tourism sector by focusing on the potential gains from increasing e-tourism. We stress that the report is not an impact analysis of tourism per se. Also, the data validity and the lack of longitudinal data clearly suggest that the results of our report should be taken with caution when used as input to policy and governance discussions.

As part of the E-Bhutis project, we have established a website (<http://www.ebhutis.org>) where this report along with other public materials is available for free download. We have had severe challenges in putting this report together. We hope the online availability of the report will help others in search of materials on impacts of e-tourism and/ or Bhutan. We welcome feedback on the analysis and conclusions drawn in this report.

The data collection, analysis, and report writing were completed in 2005 and the first half of 2006. We are in debt to the support of ABTO for support in finding and interpretation of data. Errors, etc., remain, of course, our responsibility. Comments or questions to this report should be directed to the authors of this report. Please use the e-mail address andersen@cbs.dk for correspondence regarding the report.

Copenhagen, June 29 2006

Kim Viborg Andersen

Helle Zinner Henriksen

Executive summary

Bhutan is in economic terms highly dependent of tourism. E-tourism is in this report assessed as a mean to maintain the current positive development in tourism and as a driver for extending tourism to new markets. Effective use of information, communication, distribution and transactions through the new media, such as the Internet, can lead to an increased level of economic activity in the tourism sector in Bhutan. Also, the indirect economic impacts on transportation, accommodation and the retail/ handicraft industry can be substantial.

The macro-economic impacts of e-tourism in terms GDP growth, improvement of the foreign exchange balance, and increased employment are in this report described in three scenarios based on a forecasted annual increase in tourism by 15%.

In the event driven scenario where the Bhutanese tourism industry manages to increase the number of bed nights per tourist and their consumption by 15% and to increase the number of international arrivals by 5%, there is a short term increase in the GDP output from the tourism sector and the dependent sectors by 22.4%, an improvement of the foreign exchange balance by 1.2 million USD, and an increase in the employment in the tourism sector and the dependent sectors by 5.1%.

In the transition driven scenario the Bhutanese tourism sector manages to use the internet and other technologies to increase the number of international arrivals by 15% but the number of bed nights increases by only 5% and the consumption by 5%. In this scenario, the GDP output increases by 8.7% and employment by only 2.3%, whereas the foreign exchange balance increases by 623,000 USD.

In the tourism consumption spending driven scenario, there is an increase in the number of international arrivals and bed nights by 5% only, but the consumption by tourists increases by 15%. Thus, the GDP contribution from the tourism sector and the dependent sectors increases by 15.5% and employment by 6.7%, whereas the foreign exchange balance increases by 873,000 USD.

There are several challenges to be met in order for the full scale benefits of e-tourism to materialize. Effective online visa procedures and marketing training of tour operators are being implemented as part of the E-Bhuti project. Economic incentives for the tour operators and the scale of economic benefits are less visible in the current business structure. The relative limited international orientation of the tour market and the lack of international players at the Bhutan market are other inhibiting factors for e-tourism to materialize in the Bhutanese economy.

This report also highlights several facilitating factors for e-tourism to flourish: the commitment by the Association of Bhutanese Tour Operators (ABTO) and the willingness of the various institutional players to facilitate a smoother visa application process.

Table of content

1	Introduction.....	7
2	E-tourism Challenges: Technology, Management and Profiling.....	10
2.1	Defining e-tourism.....	10
2.2	Technical challenges.....	11
2.3	Management and business challenges	12
2.4	The shift in tourist profile	18
3	Tourism in Bhutan	23
4	Earnings from the tourism sector	31
5	Impacts of e-tourism	36
5.1	Macro-economic impacts on e-tourism	38
5.2	Impacts on intra- and interorganizational capabilities, coordination and interactions.....	43
5.3	Impacts for business operations.....	45
6	Governance Drivers and inhibitors for the impacts to materialize	49
7	References.....	51

PART I

INTRODUCTION

AND

THE DOMAIN OF E-TOURISM

1 INTRODUCTION

Bhutan, squeezed between China (Tibet) and India (Assam & West Bengal and Sikkim) has a total area of 47,000 square kilometers making it the equivalent of Switzerland or Denmark in size. With about 13,000 tourists spending, on average, eight nights in Bhutan, there is a long way to go to compete with Denmark which has 13 million tourists (number of nights spent at hotels and guest houses) visiting Denmark on an annual basis.

Next to hydropower, the 13,000 tourists visiting Bhutan are the main source of gross foreign exchange earnings for Bhutan secured by requirements of spending a minimum of US\$ 200 per person/ day in Bhutan (covering all expenses related to hotel, transportation, food, etc.). Boosting the number of tourists with the use on information technology could help increase the foreign currency earnings and boost the domestic economy.

The IT-infrastructure in Bhutan is being expanded through satellite technology but as of 2006, it lacks high speed connection at the various entry points, particularly among the approximately 200 tour operators managing tours for tourists. A rough calculation of the economy in the tourism sector makes it obvious that payback of investment in state of the art technology (computers, servers, switches, software, etc.) is difficult to afford given the low turnover in the economy.

Global tourism is expected to continue its growth. In Europe, there were about 400 million international tourist arrivals in 2001. This is expected to rise to 520 million in 2010 and more than 720 million in 2020 (PRISME 2003). In comparison, the Bhutanese share of global tourism is quite modest. With about 13,000 tourists visiting each year, there is substantial room for growth and a potential to take a larger proportion in the lucrative tourism business. Although Bhutan is committed to increasing tourism, it is focusing on not exceeding tourism beyond what the hotels and infrastructure can absorb. Furthermore, it aspires to keeping Bhutan as an exclusive and unique tourist destination, that is, not flooded by mass tourism.

This policy has probably contributed to rumors that there is a policy of a fixed number of tourists being allowed to travel to Bhutan. Also, there is a perception of having difficulty obtaining visas and entry permits. However, tourists who have actually visited the country do not share this (mis-)perception. A survey carried out in autumn 2004 by the Bhutanese Department of Tourism (DoT) shows that approximately 80 percent of the visitors found it either “very easy” or “easy” to organize their trip to Bhutan.

Another misinterpreted area is the government requirement of spending a minimum of 200 USD per night during the peak season which has led to the perception that Bhutan is a very expensive country to visit. This required minimum spending includes hotel, transportation, food, etc., yet even popular guidebooks, such as The Lonely Planet, emphasize the cost factor as an inhibiting factor for choosing Bhutan as a tourist destination. Fighting or clarifying the (mis-)perception through physical channels is not only a long term strategy but also (in today’s tourist orientation) an inappropriate strategy. As an alternative, this report suggests that the internet can be used to help change the (mis-)perception of strict visa-regulation, intransparent bureaucratic procedures for processing visa applications, and excessive overpricing of the costs for accommodation, travels, etc. Additionally, the internet can help attract more tourists and segment the market to high-end markets with high internet penetration.

The E-Bhutis project, funded by the Asia-wide Programme EU-Asia IT&C, provides capacity building and IT infrastructure for the implementation of e-tourism initiatives in Bhutan. The project focuses on governance initiatives for public and private agencies involved in the tourism sector. The implementation of e-governance tools, together with relevant capacity building, enables sectoral policy makers to have better access to reliable information and to streamline coordination activities amongst stakeholders. In the project we borrow the experience from Europe to help Bhutan improve and increase e-tourism. This involves three main activities:

- streamlining “back-office” operations and exchange of data among the tourism industry and governmental offices,
- communicating with existing customers and streamlining follow-up visits,

- broadening the market segment and increasing tourism by the number of visitors, length of stay or increase of money spent during each stay.

This report proposes transforming the tourism sector to a more vivid and efficient business sector by implementing an online visa system in Bhutan. In subsequent pages we assess the impact of e-tourism in Bhutan by focusing on the governance of the tourism sector and the business processes among stakeholders such as Druk Air and the Tour operators. There are many similarities between the Bhutan strategy and strategies followed in other countries; hence, we have also chosen to bring in examples from the European tourist industry in order to highlight similarities and differences. The commitment to automate visa processing is far from unique to Bhutan. Although with variance in the implementation scope, similar ambitions have been echoed and implemented for visa processing in countries such as Australia, Myanmar and Malaysia. Whereas security concerns and speed of bandwidth are often quoted as reasons not to proceed with online visa forms and processing, lack of interoperability of government IT-systems and private sector IT-systems are equally important inhibitors.

2 E-TOURISM CHALLENGES: TECHNOLOGY, MANAGEMENT AND PROFILING

2.1 Defining e-tourism

In 2003 the revenue of the tourist industry in Europe was EUR 249.2 billion. That represents a substantial value of the total national revenues of the European countries. From the revenue-perspective, it is worth focusing on the tourist industry and future prospects of tourism and e-tourism. Similar to other business areas, the tourist industry has become the target for the “e” – similar to e-commerce, e-business, e-government, etc. Buhalis (2004) defines e-tourism as:

“eTourism reflects the digitalization of all processes and value chains in the tourism, travel, hospitality and catering industries. At the tactical level, it includes eCommerce and applies ITs for maximizing the efficiency and effectiveness of the tourism organization. At the strategic level, eTourism revolutionizes all business processes, the entire value chain as well as the strategic relationships of tourism organizations with all their stakeholders.”

The World Tourism Organization (www.world-tourism.org) defines tourism as

“The activities of a person traveling to a place outside their usual environment for not more than one consecutive year for leisure, business or other purposes.”

Similar to many other services, e-tourism products are almost exclusively dependent upon audio-visual presentation and descriptions, that is, they cannot be physically displayed or inspected at the point of sale. This is, in itself, a challenge for the tourist industry at the origin of the customer where information about the tourist destination has to be presented in an attractive and convincing manner. Traditionally, the tourist industry has used ads and brochures with intriguing photos of hotels, local attractions, nature and

culture to sell its products. In the era of the Internet an alternative channel for advertising is introduced.

Due to the development of convenient means of transportation and the decrease in prices of airfare, it has become more common that traveling goes beyond regional destinations. The travel agent Thomas Cook has, for example, a 340-pages 2006-catalogue only covering overseas destinations of Asia, Africa, Australasia, and Latin America. Wertner and Klein start their book on tourism and information technology by stating that:

“As a global industry, tourism links a worldwide supplier community with consumers, equally distributed worldwide. But tourism is also one of the big global and globalization industries. Its physical and virtual networks enable worldwide traveling, bringing together very distant cultures and habits.” (Wertner and Klein, 1999, p. 1)

2.2 Technical challenges

E-tourism raises a mix of managerial and technological challenges where interoperability is the keyword. The building of an information system supporting interoperability between different stakeholders in the Bhutanese tourist industry is one of the key objectives of the E-Bhuti project. This is more explicitly phrased as “streamline “back-office” operations and exchange of data among the tourism industry and governmental offices”. Fortunately, as the following overview illustrates a number of researchers have already started to work on the issue both from a technical and managerial perspective, providing suggestions on how to approach the issues.

From a *technical perspective* e-tourism represents a challenge getting different standards and data-bases to communicate. The issue of reusing and uniting data from the tourism industry is not new. For the past four decades the issue of establishing computerized airline reservation systems has been subject to academic studies. Especially the SABRE system (which later became the AMADEUS system, which still is a widespread booking

system – www.amadeus.net) has frequently been studied both from a technical and managerial perspective.

Wickramasinghe et al. (2004) present a multiagent system with enhanced capabilities obtained through a hybrid of intelligent techniques. The system is used as a travel optimizer application for the e-tourism domain in order to provide the customer with enhanced solutions. Also, Camacho et al. (2001) present a multiagent planning system for Intelligent Travel Planning. Their system uses different types of intelligent, autonomous, geographically distributed agents with characteristics of cooperation, negotiation, learning, planning and knowledge sharing. The technical domain also comprises IT applications that benefit the suppliers of services in the tourist industry by integrating a variety of inference procedures, combining information retrieval with reasoning, and facilitating automated document drafting.

2.3 Management and business challenges

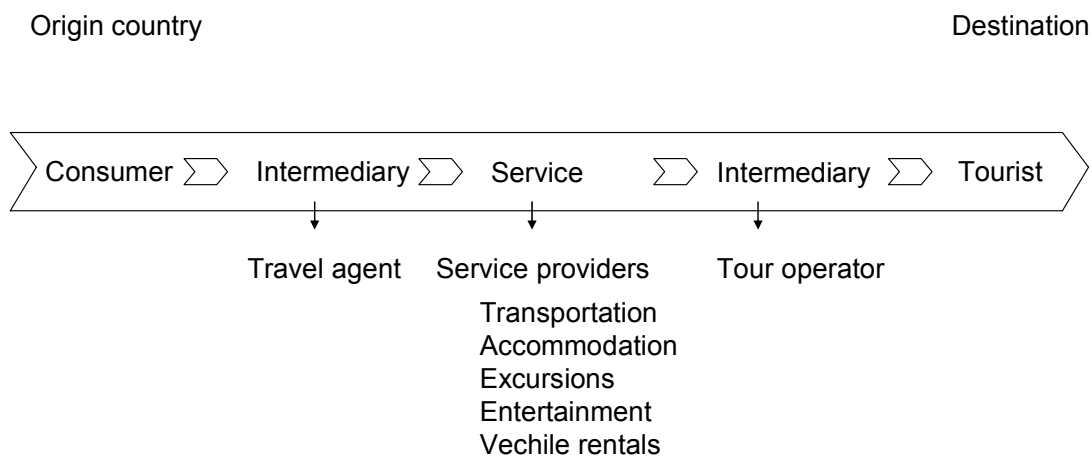
From a *managerial perspective*, e-tourism can be conceptualized as a subset of e-commerce. It has been argued that travel and tourism comprise a leading application field in business-to-consumer e-commerce. Fodor and Wertner (2004) argue that the tourist industry needs to provide interoperability of data between different stakeholders in the tourist industry.

An example of this focus is the EU funded project Harmonise, which focuses on a semantic web approach for utilizing web-service infrastructure to secure tourism organizations where different data standards can exchange information seamlessly without having to change their proprietary data schemas. Further, the managerial approach addresses how travel agents, tour operators and travel agencies are challenged by “e-mediaries” – the suppliers of e.g., airfares and accommodation, who offer their products on-line directly to consumers (Buhalis, 2002), thereby bypassing the traditional stakeholders in the value chain.

Even the most simplified tourism supply chain represents a number of stakeholders. From the point of view of the supply chain even in its simplest form, it is critical that it is

carefully constructed and robust in each link in order to secure the best products and services to the consumer.

Figure 1. The generic tourism supply chain



Each step in the tourism supply chain represents opportunities and challenges with respect to adding the “e” and the development and implementation of information systems supporting interoperability within and beyond the supply chain.

Since the mid-1990s when the first public net-browsers were launched, consumers (and businesses) have, to an increasing degree, used the Internet as a source of information. The Internet resembles the agora of antique Athens (Buhalis, 2003). At the agora the Athenians would meet, discuss, trade and philosophize, the only difference being that today the location of the individual can be a living-room.

However, before the customers can benefit from transparency in the travel industry suppliers in the entire travel industry have to supply information in a system which is robust and interoperable between different agencies, e.g., travel agents and airlines.

The result is that suppliers have been challenged in their ways of doing business using the Internet and information technology more actively to support their business processes.

Wertner and Klein state that tourism services will be increasingly informative:

- more information about the services is made available at the front end to the customer, improving transparency,
- new service elements are added improving convenience and easing problem solving,
- complementary services are added such as electronic guides, leading to “edutainment”,
- information about the customer is utilized more efficiently.

Wertner and Klein (1999), p. 2

Some unified effort has been implemented to collect and analyze information among tourist associations in Europe. Among other services, the European Travel Commission (ETC) site provides access to TourMIS. TourMIS is a Marketing-Information-System for tourism managers. The major aim of the service is to provide information and decision support for tourism managers and scholars. Therefore, TourMIS provides on-line tourism survey data, as well as various tools to transform data into precious management information. The TourMIS system keeps track of the following data:

- Arrivals of visitors at frontiers
- Arrivals of tourists at frontiers
- Arrivals of tourists in all accommodation establishments
- Arrivals of tourists in hotels and similar establishments
- Bednights of tourists in all accommodation establishments
- Bednights of tourists in hotels and similar establishments
- Capacities (and occupancy) in all accommodation establishments

- Capacities (and occupancy) in hotels and similar establishments

These data provide a tool for better management practices and planning.

At the present stage, the Bhutanese tourism has taken the initial steps towards documenting its activities. Via the TaShel system, various indicators on length and frequency of visits and attributes of visitors are stored and computed by the Ministry of Tourism.

The tourist industry has, in other words, become dependent of information both with respect to providing it to its customers, but also with respect to analyzing information provided by its customers. This information relationship is multi-dimensional involving a number of stakeholders which go beyond the traditional linear value chain depicted in Figure 1. The multi-dimensional relationship is illustrated by the matrix presented in Table 1.

Table 1. The link between e-commerce and e-tourism

	Business (B)	Consumer (C)	Government (G)
Business (B)	B2B Extranet between hoteliers and tour operators	B2C e-commerce applications where consumers purchase air tickets	B2G Business interacting with government departments, e.g. hotel developer requires planning permission
Consumer (C)	C2B Consumers registering their preferences on airline or hotel loyalty/ executive clubs	C2C Consumers informing other consumers over good or bad practice (e.g. untied.com)	C2G Consumers applying for visas, requesting maps and local destination information
Government (G)	G2B Government informing hotels about food safety legislation or taxation	G2C Government informing consumers on regulations, visa or vaccination requirements	G2G Governments interaction in tourism policy matters or asking technical assistance through organizations such as WTO

In the New Media Review from the ETC the national tourism organizations are recommended to consider the following issues when using the web as a means for advertising their products:

- Are your target markets on-line?
- Are they using the internet for travel planning?
- Will they be using PCs, interactive TV or mobile phones?

Investing resources in producing appealing web-sites or mobile services requires profitable customers that obtain information through these channels. Another consequence of using the web as a means for advertising is that the tourist industry has to be prepared for meeting the demands of the segment that respond to the advertisement. As the textbox below illustrates, the tourist industry in the UK has had success by using the new media in the sense that it has attracted an attractive segment of customers. However, it is also a segment which is very conscious of what they want and whether they get value for money.

The tourism industry has achieved a new channel for performing their business. It is a channel where simultaneous and accurate information about the preferences of potential customers can be obtained. From log-files a tour operator can get a precise picture of how the customer came to his web-site – and also where the customer went after visiting his web-site. This gives good insight into where to advertise. If a site is approached via the big and popular search engines, e.g. Google.com, it might pay off to place an advertisement at the search machine.

Textbox 1: eTourism case from UK

Travel websites in the UK attract a wealthy demographic - particularly wealthy families, empty nesters and young urban professionals.

The travel industry has enjoyed explosive growth over the past few years and is one of the top e-commerce industries. A handful of players have dominated the industry over the past year, but according to Hitwise, things appear to be set to change as smaller players snap up market share. Hitwise has just released the first edition of its UK Quarterly Travel Research Note which provides insights into the trends affecting the sector, the practices of the leading players, and analysis of Sabre's proposed acquisition of Lastminute.com.

Key Findings of the report are:

- Websites for commercial airlines have enjoyed explosive growth, with 24% increase in market share of visits in April 2005, compared with April 2004.
- EasyJet, RyanAir.com and British Airways have been the top three airlines for the past twelve months based on market share of visits. Over that same period, smaller players have enjoyed significant growth in share of visits, narrowing the gap to the leaders.
- Travel Agencies experience the highest level of comparison shopping among the leading e-commerce sectors, with one quarter of visits to travel agency websites coming from another site in the same category.
- Travel websites receive more visits from search engines than average for other sites on the Internet, but receive fewer visits from e-mail services.
- Travel websites attract a wealthy demographic, with wealthy families, empty nesters and young urban professionals most likely to visit travel websites. These groups are also most likely to book three or more holidays a year, based on an offline survey by Experian.
- Expedia.co.uk maintained its hold on the “number 1” spot among online travel agencies in April in terms of market share of visits. The site also enjoys an above average session time and share of pages viewed. These factors combined indicate strong audience engagement among Expedia.co.uk's many visitors.
- There is a strong link between the share of visits to travel agency websites and the number of search terms sending visits to the sites.

Source: <http://www.etcnewmedia.com/review/>

Yes, businesses are challenged by new entrants in the market. The new entrants are competitors to the traditional and well established businesses. The most prevalent

example of a completely new entrant in the tourism industry is the Microsoft-owned expedia.com. Microsoft has great experience in software development but no particular experience or history in the travel business. The travel portal has none the less taken a good market-share in the tourist industry. The tourist industry itself has also created its own portal, www.travelocity.com. Travelocity does similar to expedia.com provide access to bookings of airfares, hotels, entertainment etc. that is also the case with the NutKing travel plan. The NutKing.com illustrates the core concept of the travel portals. It is not only a matter of planning the 'when' and 'where to go' under which budget, but also what to do during the trip. The customer takes active part in planning and choosing what to do.

There is also the reverse side of the coin of the new channels of communication. Transparency in the market created by customers becomes a factor which businesses have to take into consideration how to handle. An example of this vulnerability is the site www.untied.com. The site is an open fora where customers can discuss their dissatisfaction about United Airlines. Given that there is no regulation or censure of the Internet there is no way United Airlines can prevent people from submit fair - or more critically unfair - criticism of the company.

The diffusion of blogging is yet another channel when discussing satisfaction and dissatisfaction of services. In contrast to the untied.com channel (and similar channels based on web-site postings of comments), which operates with some delay the exchange of experiences take place in real-time in the blogging media. Blogging does in that way hold the capability of influencing the decision making process of a potential tourist, if negative comments are exchanged among the participants while the customer is in the process of deciding where to go real-time comments from others can impact the decision.

2.4 The shift in tourist profile

There have been big changes in the tourist industry since the 1840s when Thomas Cook introduced the concept of package tours. The travel industry experienced a boom in travel after Second World War when it became within economic reach for middleclass people to go on vacation. Before that point in time, travel and tourism mainly attracted the upper-

class. The number of customers of tourist services therefore boomed when middleclass people adopted the habit of traveling during their vacation. One very visible effect of the increased demand in the European context are the Spanish resorts on the coast line including the islands of Majorca and the Canaries, where hotel and tourist resorts briskly mushroomed in the 1970s and 1980s.

The tourist industry has faced a remarkable shift during the past years due to the change in demand from consumers. In their position paper, Tourism Trends for Europe, the European Travel Commission (ETC 2005) suggests that due to more self-assertive consumers, the travel industry has witnessed a shift in the market and that this trend is in line with the notion of the “experience economy” which some economists suggest is a prevalent paradigm at the moment. This shift can very well end up favoring destinations such as Bhutan.

Table 2. The ETC-tourist profile

Variable	Trend	Implications for e-tourism
Demo-graphy	Population gets older	Better health. More disposable resources than in the past. Increased demand for quality, convenience and security. More demand for relaxing entertainment facilities and activities. Changed focus in marketing efforts & longer tourist season.
Health	Health-consciousness increases still further	Decreased demand for sun-holidays. Increased demand for active holidays. Wellness holidays have higher priority.
Awareness & education	The average level of education is increasing	Increased demand for special products. More demand for elements related to arts, culture and history. Better and more creative communication.
Leisure time	Reduced for the working part of the population	Shortening of a long main holiday – more short ones. Increased need of relaxation.
Travel experience	More sophisticated consumers are aware of needs and rights	Alternative ways of spending money and time will compete with holidaymaking and within holidaymaking. Destinations that do not live up to the expected standards will suffer. More mixed behavior – sometimes luxurious holidays, sometimes simple holidays - short and long trips Preferences will become more fragmented. Destination fidelity will continue to decrease. More experienced tourists will increasingly result in more critical attitude to the artificial, in favor of greater authenticity. The increasing preference for mobility will stimulate rentals of vehicles. Destinations that offer a full, varied, totally balanced concept will be increasingly preferred, and will demand better destination management.

-- Table 2 continued from previous page --

Variable	Trend	Implications for e-tourism
Life styles	Changes in tourists' perception of personal needs and behavior	<p>Demand for cheaper accommodation such as Bed & Breakfast decreases.</p> <p>Demand for smaller sized high-end accommodation (family hotels or tourist farms).</p> <p>Less demand for fully escorted tours.</p> <p>Suppliers will benefit if they are able to create completely new products, concepts and services that distinguish themselves by their added value.</p> <p>Demand for combined holidays and hobbies (golf, skiing, birdwatching).</p> <p>The trend "back to basics" results preferences for more simple holidays – from hotel to bungalow, from caravan to tent.</p>
Information technology	The role of the Internet will increase still further as a means for visual presentation	<p>Transparency in offers will let customers compare products and suppliers, which will lead to more intensive competition.</p> <p>Experienced tourist will put together their own holidays on a modular basis with direct bookings.</p> <p>The role of travel agents will decrease – tours are bought directly via the net.</p> <p>Internet will transform the role of tourist organizations – e-marketing including the application of CRM will increase</p> <p>Destination marketing – e.g., branding with public support – will increase in importance as the source to stimulate website visits.</p> <p>The possibility of shopping via the Internet will stimulate later bookings.</p>
Transportation	Increasing availability of high-speed trains and low-cost carriers will influence classical travel flows.	<p>Destinations will increasingly benefit from easy and affordable access for short breaks.</p> <p>The increasing availability to direct links by train and plane will stimulate demand for international short breaks in cities and city regions, to the detriment of rural areas.</p> <p>Barriers which result from non-adapted schedules or inter-modal transportation which is not optimally connected will have a stronger negative influence on destinations that cannot meet the growing wish for easy accessibility.</p>
Sustainability	Environmental consciousness will continue to increase. Tourist destinations therefore have to be sustainable.	<p>The regional component in destinations will increase in importance.</p> <p>Destination management policies need to be improved through more coherent and consistent planning.</p> <p>The preference for destination will be more strongly connected to the support given by the local population to welcoming increasing numbers of visitors.</p> <p>Regions which have suffered from overbuilding will increasingly be rejected as attractive destinations.</p> <p>Eco-tourism should not be confused with sustainable tourism.</p>
Safety & security	Acts of terrorism and regional wars influences tourists too	<p>Increased need for safety and security therefore is part of the demand.</p> <p>Secure supplies of drinking water.</p> <p>Reliable infrastructure.</p>

The trends outlined in Table 2 can be used as a pointer of what a generic tourist looks like. The generic profile of a tourist indicates that the customer knows what (s)he wants and that (s)he is willing to pay, as long as the product lives up to the standards requested. However, good standards are no longer predefined concepts.

Part of the reason for the above-mentioned self-assertive customer is the introduction of the Internet. New channels of communication have emerged where people interact and socialize in virtual communities. People meet, network and establish new means for exchanging information on traveling.

The lonelyplanet.com web-site is an example of this trend. This transparency and competition in the market especially due to the diffusion of the Internet has challenged and even outmaneuvered customer loyalty. If the customer does not find what (s)he wants at one web-site, (s)he browses to another web-site which offers a more suitable experience.

Price comparison has also become a real challenge for providers of tourist services. Web-sites dedicated for price-comparison have become a part of the tourist industry. An example is www.kayak.com where customers can compare prices on flights, hotels, cars, and vacations. This makes it even more crucial that suppliers of tourist services differentiate their offers from others for example by bundling products in an attractive manner.

PART II:

ASSESSMENT OF
E-TOURISM IN BHUTAN

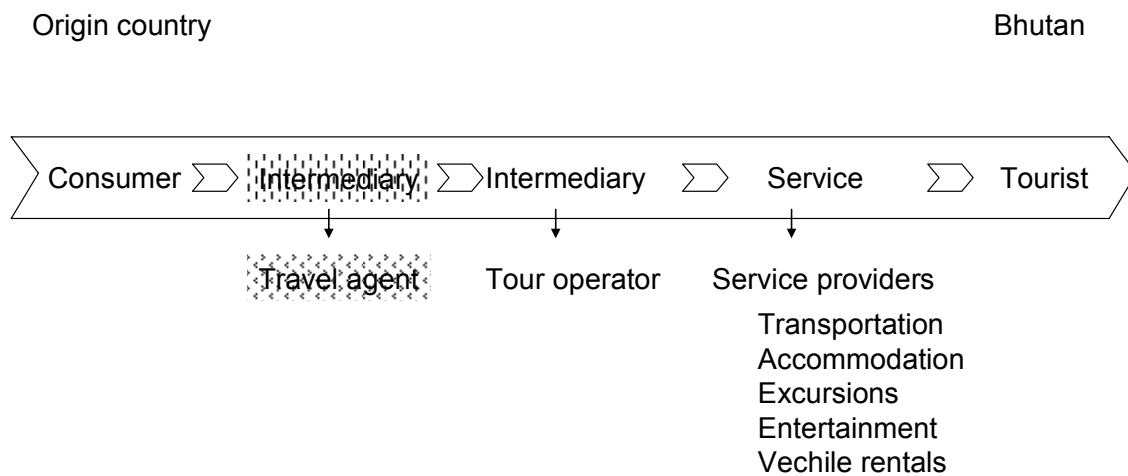
3 TOURISM IN BHUTAN

In this section we will provide descriptive statistics on the development and composition of tourism in Bhutan. Our analysis reveals an increase in arrivals and bed nights. However, we also point to the fact that the number of bed nights is distributed unevenly among hotels and an uneven distribution of the sales figures among the tour operators. This can, along with the major seasonal changes, lead to serious capacity problems along with lack of incentives to promote tourism. Also, the distribution of tourism (clearly focused on cultural tourism rather than trekking) has direct implications for the approach to e-tourism explored in section 5 of this report.

The tourist industry in Bhutan is highly regulated and centralized. Tourists can apply for a visa only at one location and not, as in most other countries, at various locations. This centralized approach is partly explained by the fact that Bhutan does not have embassies or consulates abroad. All tourists visiting Bhutan have to book their trip through a Bhutanese tour operator (TO). The TO plays a central role for organizing the tourist visit. The TO has to do all paperwork related to the visa application. Given that no passenger without a valid visa can enter a Druk aircraft (which has monopoly on flying to Bhutan) it is of high importance that the visa is approved for the visitor and that information is communicated to Druk Air which then permits the tourist to enter the aircraft.

Although there are clear benefits in terms of reducing the transaction costs by having the tour operator as the intermediary, there are also potential dangers. The intransparent pricing of the service provider's products and services, as well as the lack of open market competition, prevent global players to enter the market due to lack of incentives. Tour operators are also local market oriented, thus preventing the scale and scope of economics to materialize.

Figure 2. The Bhutan tourism supply chain

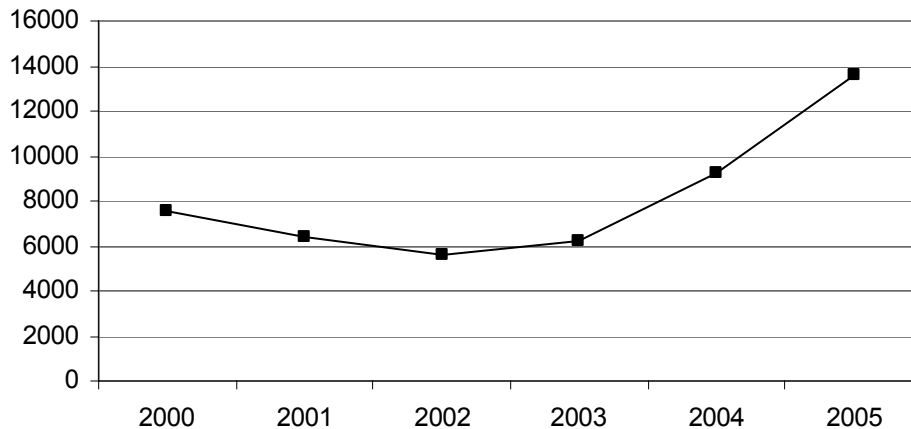


Compared to the traditional tourism supply chain (shown in Figure 1), the Bhutanese tourism supply chain surpasses the local travel agent (depicted as the first intermediary in Figure 2). Furthermore, the intermediary in the form of the Bhutanese tour operator is the one to handle the contact with the service providers. The implication of this is that the tour operator comes “before” the service providers, compared to the traditional tourism supply chain. Thus, the customer does not have direct contact with the service providers.

A common perception of Bhutan is that it is difficult to visit the country. However, that is not the case for those that have actually visited the country. From a survey from autumn 2004 done for the Bhutanese Department of Tourism (DoT) shows that approximately 80 percent of the visitors found it either “very easy” or “easy” to organize their trip to Bhutan. The increase in international arrivals from 9,249 in 2004 to 13,643 in 2005

witnesses a substantial growth. The decline in tourism from 2000-2002 has been replaced by an increase from 2002 to a record of 13,643 in 2005.

Figure 3. International arrivals to Bhutan 2000-2005



Source. ABTO (2005)

The growth in arrivals suggests that international tourists have found their way to Bhutan and that interest in visiting Bhutan has surpassed the obstacles related to obtaining information about the destination and the paper work required for entering the country. However, the Bhutanese tourist industry should be careful not to rest on its laurels. There is still room for improvement especially with respect to the streamlining of paperwork and provision of travel information.

One of the primary objectives of the E-Bhutiis project is to focus on e-governance initiatives for public and private agencies involved in the tourism sector. The project implementation of an e-visa application together with relevant capacity building will enable sectoral policy makers to have better access to reliable information and to streamline coordination activities amongst stakeholders.

From the perspective of the provision of travel information, an example of the need for capacity building is the need for improvement of the tour operators' websites ensuring that the tourists get more information on the hotels they will stay at. The tour operators will need to make the websites for the hotels visible at their own sites.

Figure 4. Number of bed nights distributed on hotels

Source. Data provided by ABTO

As demonstrated in Figure 4, there is an uneven distribution among the listed hotels with respect to the number of bednights. Apart from geographical reasons (vicinity to the airport) determining the relatively high share of bednights in Paro, the distribution could reflect the preferences of the tour operators rather than the preference of the visitors. At present it is not possible for visitors to choose a hotel in Bhutan. From an e-tourism perspective, this is because there is only limited accessibility to information about the different hotels on-line. Hence, it is not possible for the visitor planning to go to Bhutan to choose among the alternatives. This approach is contrary to the over all trend in e-tourism where customers are in charge of deciding as much as possible. There has, as described earlier, been a massive move towards the use of the travel portals when the customer plans his/her trip. With the Internet it has become easier to present the different accommodation options. It should be stressed that especially the issue of choosing accommodation has traditionally been used as one of the focal parameters in selling package tours. The afore-mentioned catalogues (e.g., Thomas Cook) always provide

classified information about all hotels available. The point being that accommodation is one of the parameters of price differentiation.

Regarding the access to better information in the visa application process, there is substantial room for exploring how the processes can be streamlined towards the end users. Pursuing control, internal coordination, and intra-governmental interaction through digital media is one important step towards increasing e-tourism and having back office system pay-offs. Each stakeholder appears to be in a win-win situation benefiting from increased digital interaction and coordination. This is mainly due to increased quality in information and improved efficiency.

There are also three key challenges that will emerge when aiming to increase tourism through the means of digital channels. The data presented in Figure 5 indicates that the international agents have been far more successful in attracting more tourists than the local tour operators. Although the tourists originating from international agents eventually will be part of the tour operator's business, there is still a profit concern.

Figure 5. Number of tourists distributed on supply channels (international agents or domestic operators), 2003 and 2004

Source. Data provided by ABTO

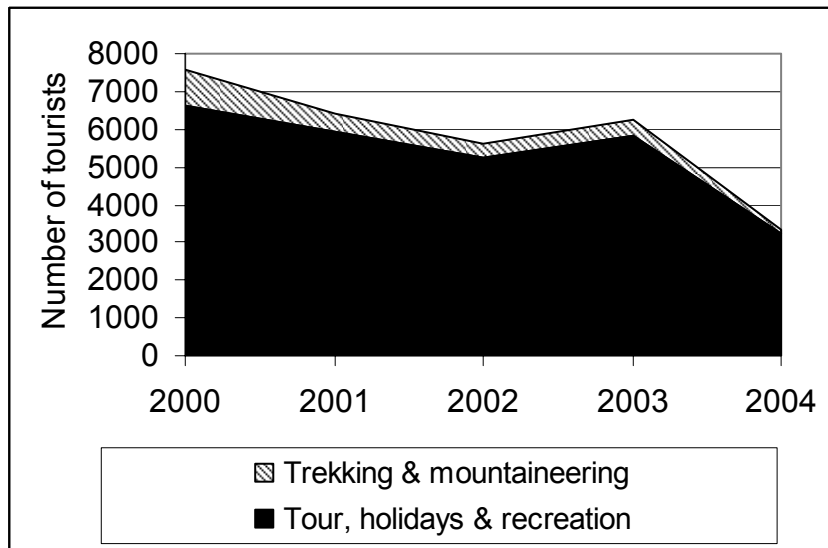
The international agents have more than doubled their number of tourists, whereas the local travel agents have only managed to achieve a small increase in their sales of trips to Bhutan. From our evaluation of the Bhutanese tour operators' web sites, the following patterns emerge which might explain this uneven distribution in attracting customers.

First, the web-interfaces are by and large built along existing patterns of on-line interaction. While this in the short term is a restriction under which most external projects operate, a revisit to the processes will be needed.

Second, there is a need to re-visit the patterns of competence building, and the role that IT plays in this, is a requirement if communication patterns with the external users are to become multi-application based; employees will then face the challenge of mastering multiple applications as a dynamic condition. There is a strategic implication for formulating views on how competence building for government workers should evolve. For example, most websites for the tour operators do not sufficiently serve the core visitors but focus on marginal customers. In Figure 6 we have distributed the total number of tourists on tour, holidays & recreations versus trekking & mountaineering for the period from 2000 till 2003. The distribution clearly shows that the number of trekkers is only a fraction of the total number of tourists. This needs to be accounted for in web-design which generally (for all tour operators) focuses on Bhutan as the paradise for trekkers.

Third, the costs for online presence and the associated demand paradox need to be solved. Contrasting the private sector, government in general cannot use IT to expand its sources for revenue or shift to more profitable products/customer segments. As accessibility to the Internet is approaching 100% at both the supply side (the government) and demand side (the citizens and companies), there needs to be more explicit directions for whether the associated costs should be seen as operating costs only and, if so, should they be taken from other areas? Will this reinforce a need for centralization in decisions of how and where IT is being adopted?

Figure 6. Number of tourists on tour, holidays & recreations versus trekking & mountaineering, 2000-2004



Source. Data provided by ABTO

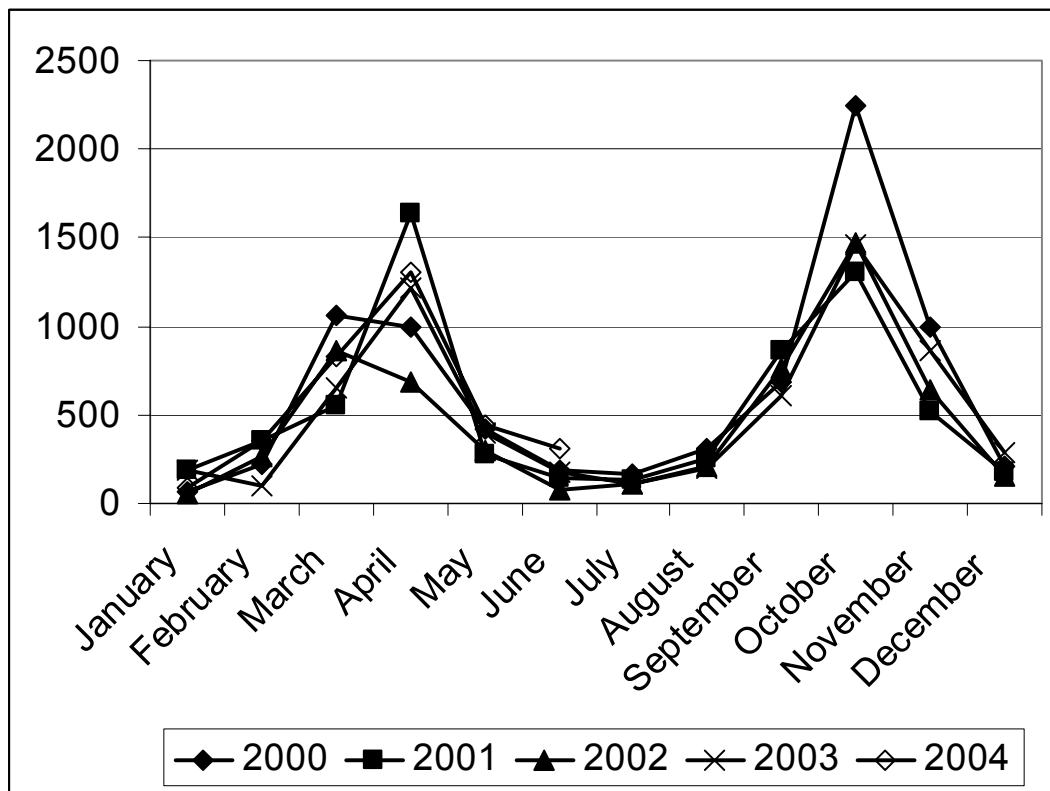
By going online with visa applications, government has, intentionally or not, created the expectations that through the online universe, tourists can expect the same service mentality from the public as from the private sector. Prompt replies, traceability, etc., are key expectations being raised: where does this begin and end? From one perspective, one could fear an endless demand of governmental services in the online universe with no transaction costs from the citizens' point of view.

In its transformation to being online, government has not been clear about how it is going to handle the success. At a workshop in Europe, one of the presenters from the Ministry of Finance in a country considered to be among the worldwide leaders of IT-adoption said:

“When we designed this website for the citizens we downplayed the usability part not because we couldn't do better or were not aware of this. We were exactly aware of that a too good design would cost money on two ends: we would have to pay the consultants and software company more and we would end up having increased workload.”

The lack of budget line for increasing expenditures by going online and higher requirements for instant payoff of IT expenditures in the public sector than in the private sector are issues that will accompany the concerns raised by the manager from the Ministry of Finance and will be increasingly relevant to address the more successful the online visa processing system is. In Figure 7 we have distributed the number of tourists in months for the four annual cycles 2000-2004.

Figure 7. Number of tourists (bed nights) distributed on months, 2000-2004



Only the first six months of 2004 are included in the chart

Source. Bhutan Statistical Year Book, various years

The data demonstrates the two annual peaks April-May and October-November. Intensive marketing towards the European tourists from Germany, Netherlands, and Scandinavia appears to attract off-season tourists, bearing in mind that the European industrial holiday season is in July and August. It is thus mainly people outside the workforce who are able to visit Bhutan in spring and autumn. It should be reconsidered

whether the tourist season could be expanded taking into account that the peak-season for holiday in most of Europe is in July and August.

4 EARNINGS FROM THE TOURISM SECTOR

The expansion of tourism face several challenges such as seasonality, lack of product diversification, providing tax incentives for tour operators and the foreign businesses, and more pro-active marketing. Also, inter- and intra-governmental coordination and communication with the tourism stakeholders needs to be increased.

In 2003, Asian Development Bank (ADB) noted that the tourism strategy was quite modest. Clearly the official strategy on matching the number of tourism with local capacity for transportation, hotels, etc. has the benefit of building a good tourism image. The downside is that an increase in tourism will take a long time.

“However, the Government’s objective is not to maximize the number of tourist arrivals, but to increase revenue receipts by increasing the average stay of tourists and only secondarily from a gradual increase in the number of tourists. To improve the enabling environment, the Government plans to replace its existing aircraft fleet with larger aircraft and by establishing a hotel and tourism management institute for tour operators and guides.

As per current regulations, private sector tour operators have to charge a minimum fee of \$200 per day, per tourist during the high season and \$165 per day, per tourist during the low season. Of this gross receipt, Government’s average share over the two seasons is 33%.two foreign private sector companies are establishing new hotels; these, however, are meant exclusively for high-end market customers. In the NFYP, the Government’s objective is to increase the number of tourist arrivals to 15,000 per year by 2007.” (ADB 2003).

The implementation of the government plan appears to be on the right track. Yet, assessment of the earnings from tourism in Bhutan is extremely challenging. There is a

lack of longitudinal data and challenges in estimation of the correlations. Ambitions on modeling direct and indirect impacts in monetary terms fall short due to the quality of data. Also, employment impacts and structural indicators can only be accessed with extreme caution. Yet, it is our assessment that there is a need to revise the conclusions from the ADM-evaluation that was quite pessimistic on the earnings from the tourism sector:

“The tourism industry, which is almost exclusively run by the private sector and is the single largest source of foreign exchange earnings, has not recovered from the aftereffects of 11 September 2001. Tourist arrivals reached a peak of 7,600 in 2000, but have been declining at a rate of 12% annually since then. Foreign exchange revenues from the sector declined to \$9 million for 2001/02. “(ADB 2003).

Contrasting this rather pessimistic outlook from the ADM in 2003, there has been an increase in tourism since 2002 which has led to substantial increase in tourism earnings. The BTN-earnings were almost status quo in 2003-2005, but the USD-earnings skyrocketed 51% from 2003 to 2004 and a further increase of 27% from 2004 to 2005.

Table 3. Nominal value and annual increases in tourism earnings for tour operators

	Nominal value		Annual increase (pct)	
	USD	BTN	USD	BTN
2003	2,603,529	5,723,571		
2004	3,924,502	5,119,180	51%	-11%
2005	5,000,376	5,382,979	27%	5%

Source. Data provided by ABTO

The impacts on national GDP is apart from the direct income generated by the tour operators, the income at hotels, shops, i.e., the indirect economic activity related to the increased income for the hotels, shops, and tour operators. The direct earning from tourism in 2005 was at 18.5 million USD, more than double that in 2003. Although there has been a rapid increase in tourism, the relative weight in the overall GDP has been

marginal. The high importance of the hydropower in the overall GDP marginalizes the importance of the tourism sector.

Table 4. Tourism earnings and GDP (at factor costs), 1999-2005. Million USD

Year	Direct tourism earnings	GDP (fc)
1999	n.a.	7,982.8
2000	10.5	9,107.1
2001	9.2	10,547.2
2002	8.0	11,877.7
2003	8.3	12,929.5
2004	12.5	n.a.
2005	18.5	n.a.

Source. Data provided by ABTO

The annual number of bed nights give a direct improvement of the foreign exchange balance of more than 7 million US dollars given the requirement of spending of 200 US dollars a night. A conservative estimate is that costs for fuels for transportation, imported foods, vehicles, etc. amounts to about 20% of the direct revenue. We are then left with a direct improvement of the foreign exchange balance of 5.6 million USD.

The number of bed-nights are unevenly distributed among the hotels, with Olathang Hotel and Zangto Pelri Hotel being in the very top end of the spectra. On reason for the uneven distribution is geographical location. Olthang is next to Paro airport and therefore used by many travelers as a “hub” for arriving and departing.

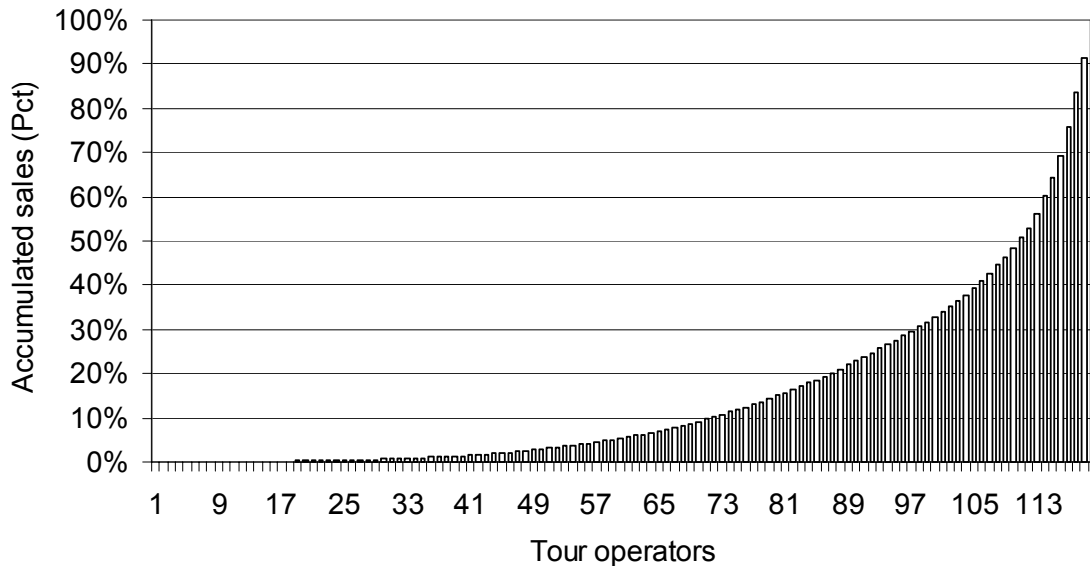
We have assessed all the hotels’ website and found them all to be lacking an e-tourism profile and therefore not supporting the high-growth e-tourism scenario (please consult the next chapter of this report). Although it could be argued that since tour operators arrange the tour for tourists, there is neither a need for detailed information about the

hotels nor is there an incentive/ or remuneration for the hotels to actively market themselves on the internet.

With regards to employment impacts: data on employment, the GDP productivity distributed on economic sectors, and the input-output relations are not available on micro level, hence making it impossible to give any precise estimation on employment. However, a conservative estimate is that about 30% of the employment in Bhutan is in economic terms dependent on tourism and that an increase in tourism by 15% would increase net-employment in the tourism sector and the dependent sectors by 3%.

Along the horizontal axis in Figure 8, we have plotted the tour operators, and along the vertical axis the accumulated sales. Thus, the accumulated sales of 70 of the tour operators amounted to only 10% of the total sales in 2004. The top five tour operators accounted for 30% of the sales.

Figure 8. Sales figure distributed on tour operators (Percentage)



Source. Data provided by ABTO

The accumulated sales figures reported on tour operators display a sector where about 50% of the sales turnover is generated by the top-10 % of the tour operating companies. Thus, there are more than 100 tour operator agencies to share the remaining 50% turnover. Many of the tour operators have a turnover that is generated from less than 10 tourists per year. For the majority of the tour operators the turnover does not allow major investments in technology nor can it allocate large investments for attracting new segments to Bhutan. The capital earnings from tourism is for most of the tour operators at very minimum. Yet, supply-side driven e-tourism might be an option for ABTO and the larger tour operators.

5 IMPACTS OF E-TOURISM

The economy in Bhutan has been reviewed by several international organizations as Asian Development Bank (e.g., ADB 2001, 2003). All reviews we have consulted as part of this project have identified major challenges in the economy and questioned the ability to increase GDP. We have not in our project reviewed the overall ability to facilitate economic growth in Bhutan. Our analysis focuses on the potential impacts of e-tourism only. The analysis of the impacts of e-tourism in Bhutan is structured in three sections: (1) macro-economic impacts, (2) impacts on intra- and interorganizational capabilities, coordination and interactions, and (3) impacts on business operations. Our analysis captures the impacts on medium term (three to five years). Short term impacts are left outside our analysis due to the required change in business operations. We view such changes difficult to implement overnight. Modeling the impacts on medium term, given an increase in e-tourism, leaves the floor open for policy initiatives on how to increase the tourism.

We have not in this report made any normative statements on sensitive policy issues on regulation of the tourism sector. Yet, availability of hotel capacity, payment infrastructure, requirements to payment, etc., clearly are issues that could impact the magnitude and sequence of impacts. One example is the capacity to absorb more tourism. From our field experience it has become visible that tourism is at its maximum in the peak-seasons in spring and autumn with respect to deployment of infrastructure and capacity of tour operators. Another issue which will affect the magnitude of impacts is the degree of change in business approach. Successful e-tourism will not come about without changes in more proactive online marketing and post-tourism follow-up activities. Also, the impacts on intra- and interorganizational variables are not only due to the VAS (Visa Application System) per se, but indicate also that new ways of working have to be adopted and implemented. The ability for the e-tourism actors to view them through the governance lenses rather than government/ business organization lenses is a requirement for these impacts to materialize. In the subsequent sections (5.1-5.3) we will

outline the impacts of e-tourism, whereas the drivers and inhibitors will be discussed in section 6.

Figure 9. Visualization of the impacts areas of e-tourism

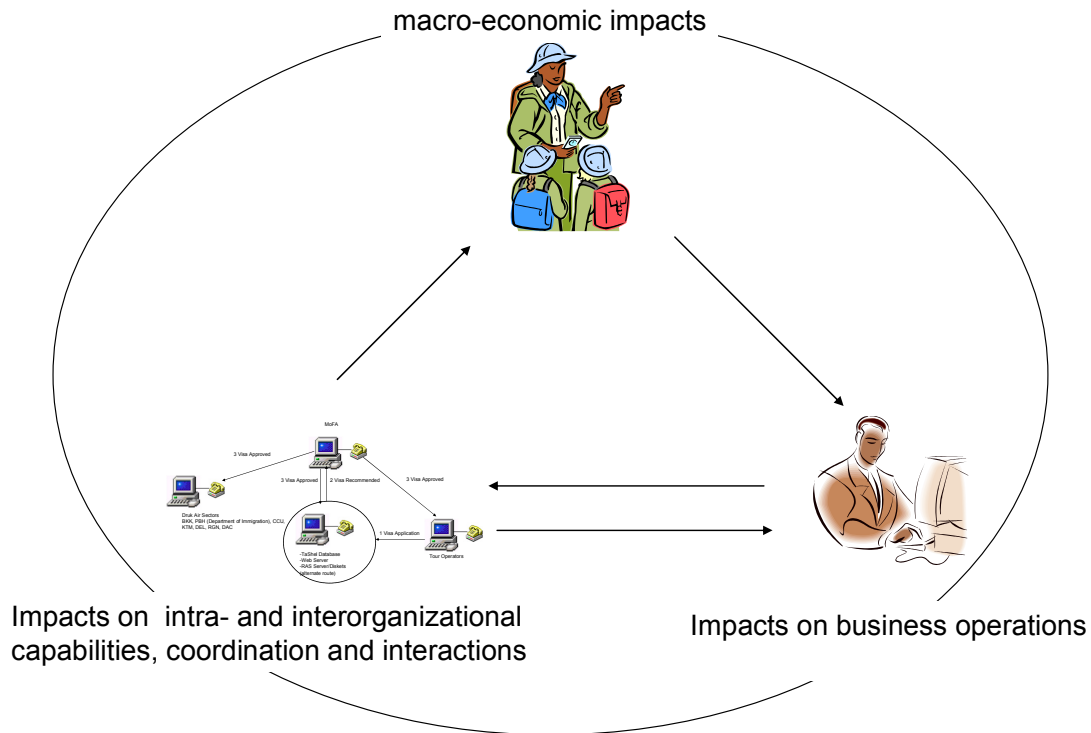


Figure 9 illustrates the three impact areas and their interdependencies. The illustration suggests that impact from e-tourism starts with the intra- and interorganizational capabilities, coordination and interactions. However, as described earlier, tourists do, to a certain extent, set the agenda. Streamlining of processes hence becomes a fiat rather than an option. That means that the macro-economic impacts on e-tourism are forces which determine the speed and quality of the intra- and interorganizational implementation of mechanisms supporting capabilities, coordination and interactions. As for business operations, there are several indicators suggesting that these are under pressure from more sides if e-tourism is to be implemented successfully. These aspects are clarified in the following section.

5.1 Macro-economic impacts on e-tourism

We have formulated three scenarios to capture the variance in how e-tourism might stimulate the macro-economic indicators (GDP growth, improvement of the foreign exchange balance, and increased employment): the event driven tourism, the transition driven tourism and the tourism consumption spending scenario.

In the *event driven scenario* the Bhutanese tourism industry manages to increase the number of bed nights per tourist and their consumption by 15% and also to increase the number of international arrivals by 5%. The focus is on encouraging tourists to stay longer. By making tourists aware of the ample palette of events that Bhutan offers, tourists decide to add more days to their stay in order to cover more events and activities. Basically, this scenario challenges the marketing of the Bhutanese events. Returning to the message delivered in relation to the present marketing focus in Section 3 compared to the actual activities undertaken by tourists (Figure 6 on the discrepancy between trekking and cultural activities), it is worth considering how activities other than trekking can be marketed.

In this scenario the implication for e-tourism is innovative use of Internet providing on-line information in the form of illustrations, verbal descriptions, media clips, and personal accounts from previous visitors. Tourists which have already visited the country should be stimulated to provide their experience of their stay either via viral marketing or via accounts posted at the tour operators' web-pages.

In the *transition driven scenario*, the Bhutanese tourism sector manages to use the internet and other technologies to increase the number of international arrivals by 15%, but the number of bed nights increase by only 5% and the consumption by 5%. Thus, focus in this scenario is on getting more tourists interested in visiting Bhutan. Given that the present hotel capacity and physical infrastructure is already used at its upper capacity during the peak seasons in spring and autumn, efforts have to be made to extend the tourist season, for example, by taking into consideration that the Europeans have their vacation during July and August and also that they have some time off during the Christmas holiday season.

The challenge with respect to e-tourism is slightly different in the transition driven scenario. In this scenario it is a matter of getting potential customers to web-sites offering travel to Bhutan. One option is to learn from the behavior of the international travel agents which have experienced a massive growth in customers compared to the Bhutanese travel agents. However, it is not clear from the data on the growth to determine whether or not the growth in customers from the international travel agents is due to on-line activities. It is therefore suggested that Bhutanese travel agents utilize the Internet more aggressively to attract the attention of potential visitors. A greater variety of tourists has to be attracted.

In the third scenario, *the tourism consumption spending driven scenario*, there is an increase in the number of international arrivals and bed nights by 5% only, but the consumption by the tourists increases by 15%. The focus is to attract visitors who will spend more money on goods and services than at present. A condition for implementing this scenario is that there is a readiness to invest in facilities living up to world class luxury standards. That involves improving hotels, infrastructure and means of payment. Though it has its own charm in that Bhutan does not provide access to ATMs, this is not durable in the long run if the tourism consumption spending driven scenario is pursued. Furthermore, the Bhutanese tourist industry has to consider how to create unique activities which can generate revenues beyond the normal due to scarcity in supply, e.g., paragliding in the Himalayas or stays in remote monasteries on spiritual retreats, where meditation and spiritual practices can be taught.

The e-tourism instruments for achieving the third scenario are generated by announcing travel to Bhutan at channels directed to the wealthy segment of the world population. This could be through web-sites such as wealth24.com, which focuses on luxury shopping and travel.

Using simple linear regression analysis, we have computed the outcome of the scenarios on key macro-economic indicators on mid-term (3-5 year). In scenario I (the event driven scenario) there is a short term increase in the GDP of output from the tourism sector and the dependent sectors by 22.4%, an improvement of the foreign exchange balance by 1.2

million USD and an increase in the employment in the tourism sector and the dependent sectors by 5.1%.

In the second scenario (the content driven scenario), the GDP output is increased by 8.7% and employment by only 2.3%, whereas the foreign exchange balance increases by 623,000 USD. In the third scenario, driven primarily by increases in tourism consumption), the GDP contribution from the tourism sector and the dependent sectors increases by 15.5% and employment by 6.7%, whereas the foreign exchange balance increases by 873,000 USD.

The annual number of bed nights give a direct improvement of the foreign exchange balance of more than 7 million US dollars, given that a spending of 200 dollars per night is required. A conservative estimate is that costs for fuels for transportation, imported foods, vehicles, etc., amount to about 20% of the direct revenue. We are then left with a direct improvement of the foreign exchange balance of 5.6 million USD.

The impact on national GDP is apart from the direct income generated by the tour operators, the income at hotels, shops, etc., as well as the indirect economic activity related to the increased income for the hotels, shops, and tour operators.

(I) Scenario I: $\Delta GDP_I = 0.67 * \Delta BED + 0.22 * \Delta ARR + 0.67 * \Delta CON + e$

(II) Scenario II : $\Delta GDP_{II} = 0.57 * \Delta BED + 1.72 * \Delta ARR + 0.57 * \Delta CON + e$

(III) Scenario III: $\Delta GDP_{III} = 0.32 * \Delta BED + 0.32 * \Delta ARR + 0.97 * \Delta CON + e,$

where GDP is gross domestic production output in the tourism sector and the dependent segments, BED is the number of bed nights, ARR is number of international arrivals, and CON is the consumption (spending) by tourists

Our estimate is that about 30% of the employment in Bhutan is in economic terms dependent on tourism. Our impact model shows that an increase of tourism by 15% will increase the employment in the tourism sector and the dependent sectors by 5%.

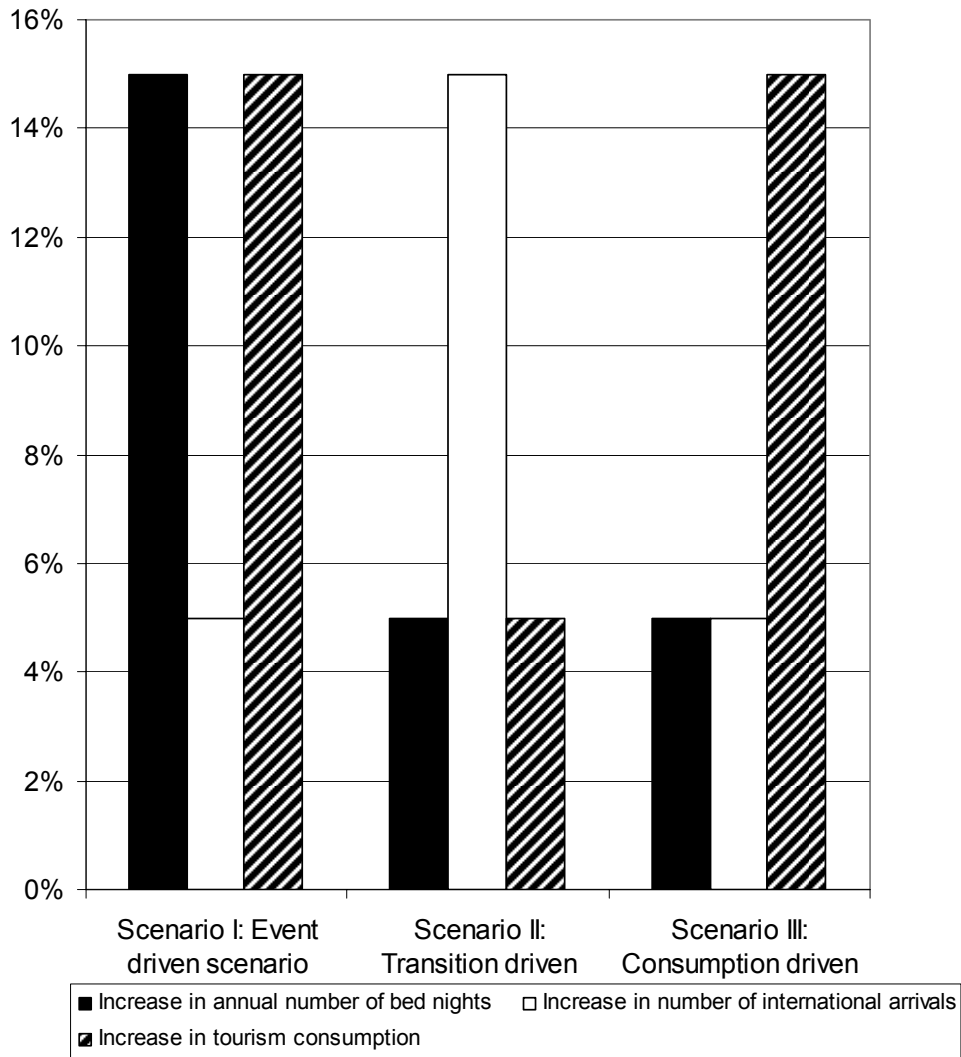
(IV) Scenario I: $\Delta EMP_I = 2.94 * \Delta BED + 0.98 * \Delta ARR + 2.94 * \Delta CON + e$

(V) Scenario II: $\Delta EMP_{II} = 2.17 * \Delta BED + 6.52 * \Delta ARR + 2.17 * \Delta CON + e$

(VI) Scenario II: $\Delta EMP_{III} = 0.75 * \Delta BED + 0.75 * \Delta ARR + 2.24 * \Delta CON + e$

where EMP is employment in the tourism sector, BED is the number of bed nights, ARR is number of international arrivals, and CON is the consumption (spending) by tourists

Figure 10. The event, transition, and consumption driven scenarios for increase in e-tourism



The differences of the three scenarios are illustrated in Figure 10. As the Figure demonstrates, there is no situation which can generate an increase in all the three selected parameters: annual number of bed nights, number of international arrivals, and tourism consumption.

Table 5. Assumptions and impacts in the three scenarios

Scenario	Assumptions			Impacts		
	Increase in annual number of bed nights	Increase in number of international arrivals	Increase in tourism consumption	GDP output in the tourism sector and dependent sectors	Foreign exchange balance	Employment
Scenario I: The event driven scenario	15%	5%	15%	22.4%	1.2 million USD	5.1%
Scenario II: The transition driven scenario	5%	15%	5%	8.7%	623,000 USD	2.3%
Scenario III: The consumption driven scenario	5%	5%	15%	15.5%	873,000 USD	6.7%

If the Bhutanese tour operators and the institutional players in the tourist industry want an improvement of the foreign exchange balance, then it is most optimal to pursue the event driven scenario, which in our analysis will lead to an improvement of the foreign exchange balance of 1.2 million USD. To pursue this strategy, the tourist industry has to consider which events they can add to their portfolio, thereby making it attractive for visitors to spend more days in Bhutan.

If the Bhutanese tour operators and the institutional players in the tourist industry want to increase the employment in the tourist industry and sectors affiliated with the provision of goods and services to the tourist industry, then the consumption driven scenario turns out to be the most attractive. To pursue this strategy, the tourist industry has to consider how to put Bhutan on the agenda of the most wealthy tourist segment which is willing to pay for an unique experience only accessible to the few.

The transition driven scenario does turn out to be the least beneficial to pursue, given that it generates the lowest GDP output in the tourism sector and dependent sectors. Since there has been a steady growth in the number of visitors to Bhutan, this is worth noting (cf. Figure 3). Stakeholders in the tourist industry should therefore consider whether a future change in priorities should be implemented in order to direct the tourist industry towards the event driven scenario or the consumption driven scenario.

It is beyond the objective of this report to recommend which of the three scenarios will be the most lucrative for all stakeholders in the Bhutanese tourist industry. Furthermore, it is crucial to stress that all stakeholders do not necessarily pursue the same goals. To give an example: the transition driven scenario would be most beneficial for Druk Air, whereas it would increase the workload of MoFA and DoT.

5.2 Impacts on intra- and interorganizational capabilities, coordination and interactions

E-tourism will impact and be impacted by the inter- and intraorganizational routines and capabilities. A key element in facilitating the impacts is the Visa Application System (VAS). VAS is being developed as part of the E-Bhuti project and will transform the ability to coordinate and cooperate within the tourism sector. The key stakeholders in the VAS system (the tour operators, Ministry of Tourism, the airline (Druk Air), and the Ministry of Foreign Affairs) are as of today not interfaced with computers although the TaShel application has had the potential to facilitate the interface.

Several observations makes digital visa processing far more simple in Bhutan than in other countries: 1) there is only one airline (Druk Air) operating from Bangkok, Katmandu, and Delhi, 2) the airline is government owned, making the coordination challenges limited, 3) tourist can apply for visas only at one location and not through any consulates or embassies, and 4) there has already been developed a software for record management of the tourism sector (TaShel). The VAS-application will help strengthening the control of the document flow and ease the work of the tour operators.

Prior to the visa system, the operators had to deliver the application documents to the various government actors (Ministry of Tourism and Ministry of Foreign Affairs) as well as the Druk Air and the Bank. The tour operators are at present not able to see online whether there has been any progress in the visa processing and when the visa would be approved. The new VAS-system provides better interaction among the government players and between the private sector players and government.

The capability of uploading data and performing validity checks of data will be improved by the implementedation of the VAS-system. The impacts of the increases in capability will be reduced in redundancy data and result in lower costs for re-using data across the stakeholders. Also, the standardization of the data and the electronic exchange of data will lead to improved coordination and cooperation. Finally, the use of online electronic communication will increase with and within the stakeholders. We have not been able to quantify the magnitude of these impacts.

Table 6. Anticipated impacts of the visa online system on capabilities, coordination, and interaction

Variable	Anticipated impacts
Capability	<p>Improve the ability of uploading information</p> <p>Validity checks at data entry level can lead to improved data quality</p> <p>Tour operators get better access to information about processing time</p>
Coordination and Cooperation	<p>Generating information about the tourism flow in a standardized format</p>
Interaction patterns	<p>Improved internal government interaction</p> <p>Tourist will use online media as a complementary means to communicate with tour operators</p>

Under the label “Capability” it is anticipated that the implementation of the VAS-application will lead to new ways of working. The VAS-application provides transparency in and between the different stakeholders in the tourist industry. This leads to implementation of new modes of control. When handling the visa application with the

VAS it is possible to track and trace how the application is moving within the system. Bottlenecks can be identified and processes can be streamlined. Another consequence of implementing, the VAS-application is that new requirements with respect to data-discipline have to be observed.

The issue of data-discipline is a condition for interorganizational coordination and cooperation. This could challenge organizational cultures and habits which might not be compatible with the standards required by the system. Ultimately, the impacts of implementing the VAS-application will lead to improved interaction patterns which will be beneficial both for the stakeholders in the tourist industry and also for visitors.

5.3 Impacts for business operations

E-tourism will also have impacts for the business operations among the tour operators, the hotels, Druk Air, and the various subcontractors to the tourism industry. Although the traditional marketplace communication tools and transactions for tourism will not be completely eroded by e-tourism, there will emerge a transformation of the tourism sector in terms of information processing, communication, transaction, and distribution channels. This is best illustrated by the four virtual spaces defined by Angerhn (1997).

In the virtual information space the tour operators, hotels and Druk Air present their products and services. The virtual information space is basically a channel for one-way communication. The travel agent, service provider or tour operator has a new channel for advertising his products. Compared to the aforementioned glossy color-printed catalogues the advantage of a web-site as a channel for advertising is that content can easily be changed. Once the catalogue is printed and distributed there is no way of announcing news or special offers related to a particular destination. Compared to traditional advertisement in magazines, newspapers, radio and television the Internet gives the opportunity of combining text, sound and movement in one medium. This is especially the case after the massive diffusion of broadband connection to private homes. With the bandwidth offered at present, there is a possibility of offering, for example, media-clips.

The virtual communication space gives an opportunity for two-way communication between the Bhutanese tour operators, hotels, airlines and customers. Although Bhutan

has been practicing a “full-service” package where the tour operators take care of the hotel bookings, etc., there is still a need for one- and two-way communication with the various stakeholders. The most widespread communication channel is e-mail. It is hard to imagine a web-site selling a product which does not have an e-mail unless it is a more advanced e-commerce system, such as amazon.com or the expedia.com system, where transactions are fulfilled without the possibility of having direct and personal contact with the service provider.

Other types of two-way communication with the customer include chat or videoconferencing. Also, electronic guest-books could be incorporated into the tour operators’ homepages where the customers could leave comments and receive responses from the service provider.

The third virtual space provides a new channel for distributing services and products. In the context of the tourist industry, it is typically the ability to transfer catalogs and brochures in traditional printed media. The distribution space is then used as a channel for ordering the printed media. Basically, the only difference is that the customer orders the catalogue from his living room.

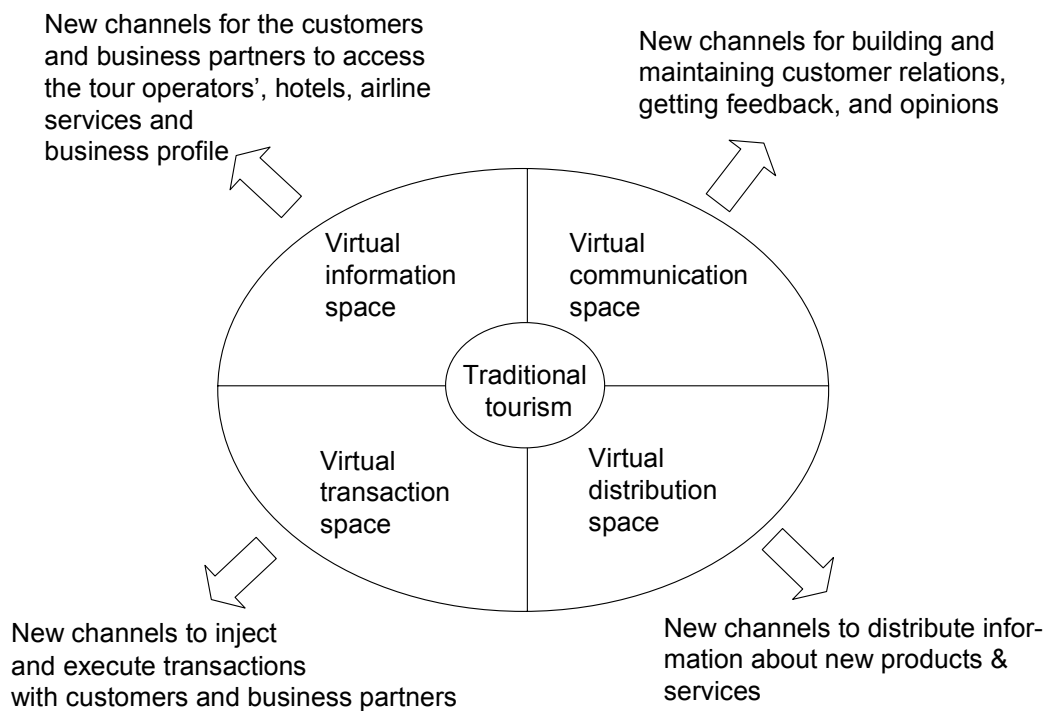
The advantage for the travel agent, the service provider or the tour operator for using the interactive virtual distribution space is that he gets valuable data regarding potential customers. These data – which the customers provide – can be used for later direct marketing on similar product offerings or to create profiles of specific customer segments and then target marketing towards these segments. In the e-commerce phrase this is referred to as customer relationship management (CRM).

The fourth virtual space is the most sophisticated space. Transactions related to booking and payment are accomplished in this space. Products and services are sold to the customer. In order to complete a transaction, there need to be several possibilities: generating an order, generating and transmitting an invoice, and paying on-line.

The four virtual spaces illustrate the impacts on business operations that can emerge as part of the transformation to e-tourism. This transformation will be reinforced by the gradual transitions to an on-line environment. Clearly, tourism in Bhutan can have a

growth without radical transformation along the four spaces outlined here. However, lack of efficient transaction processes and communication channels will hinder access to countries, particularly those with large internet and broadband penetrations. Tourists from the highly informed countries will demand implementation of IT along the four dimensions outlined here. This demand-pull driven transformation will impact the tourism sector. A prerequisite for these impacts to emerge is clearly that the back-office and inter-governmental IT-applications are oriented towards the tourism, rather than only in-house objectives. This will constitute a major challenge for these impacts to materialize.

Figure 11. The transformation of business operations: Information, Communication, Transaction, and Distribution



The four virtual spaces can be seen as complementary to the traditional tourism with respect to communication and transactions. However, as illustrated in Table 2, tourists in

the third millennium are more demanding than they used to be. They want more information and they want it faster. It is therefore crucial that the Bhutanese tourist industry adapts to this demand and implements the new channels in its business operations.

6 GOVERNANCE DRIVERS AND INHIBITORS FOR THE IMPACTS TO MATERIALIZE

The three scenarios for capturing the possible impacts of e-tourism outlined in the previous section are all viewed as having positive impacts on macro-economic indicators, organizational variables, and business processes. Research on the exploitation of information systems achieving such uni-directional impacts shows that there are often serious challenges to face in order for positive impacts to materialize. Also, there are severe external constraints and events that could work counter productively in order for positive impacts to flourish.

Key inhibiting factors are, in our assessment, lack of effective online visa procedures and marketing training of tour operators. Both areas have been key targets for the eBhuti project. The online visa application system (VAS) has been installed, integrated and rolled-out in May –June, 2006. Also, the E-Bhuti project has compiled the "user's manual", "technical specification book" and overall visa online "brochure". With regards to the training of the tour operators, more than 70 have been trained in key e-business concepts and have had feedback on their websites. A key focus of the training sessions has been to facilitate the tour operators to gain an understanding of themselves as part of a tourism value chain where the business generates attention with internet access and offline, an understanding that the customers have parallel digital options, and that customers are without any a priori knowledge of the tour operators business qualities. Departing from these four objectives, we have evaluated the websites of all tour operators, recommending that they move towards market principles, be less text intensive, use rich media for marketing, have key customer experience in focus (the experience economy), and search for inspiration to improve their websites.

The training of the tour operators can help overcome the problem with the relative limited international orientation of the tour market. More substantial reforms are in need if there is to be an increase in the number of international players in the Bhutan market that provides economic incentives for the tour operators and ensures that economics of scale benefits will surface.

There are, however, also several facilitating factors for e-tourism to flourish and to have positive impacts on the economy. Among the key facilitating factors are the commitment by the Association of Bhutanese Tour Operators (ABTO) and the willingness of the various institutional players (Druk Air, the Ministry of Tourism, and Ministry of Foreign Affairs) to facilitate a smoother visa application process. Other key facilitating factors are the international growth in tourism and the potential to direct e-tourism to countries with a high penetration of internet and extensive vacations periods, such as Scandinavian countries and Germany. Given that the Bhutanese tourism sectors can manage to benefit from the facilitating factors and overcome (several of) the inhibiting factors, there will be an increase in tourism and positive impacts will be evident along the three scenarios described in this report.

7 REFERENCES

- ABTO (2005, 2006). *International Tourism Monitor*. Thimphu, Bhutan.
- ADB (2001, 2003). *Country Review, Bhutan*. Asian Development Bank.
- Anderson, S. (1998). Java unplugs time and expense reporting. *Management Accounting*, 80(4), pp. 52-54
- Buhalis D., and Licata M.C. (2002). The future eTourism intermediaries. *Tourism Management*, 23(3), pp. 207-220.
- Buhalis, D. (2003). *eTourism – Information technology for strategic tourism management*. Prentice Hall.
- Buhalis, D., and Deimezi, O. (2004). E-tourism developments in Greece: Information communication technologies adoption for the strategic management of the Greek tourism industry. *Tourism and Hospitality Research*, 5(2), pp. 103-131.
- Camacho, D., Borrajo, D., and Molina, J.M. (2001). Intelligent Travel Planning: A MultiAgent planning system to solve Web problems in the e-tourism domain. *Autonomous Agents and Multi-agent Systems*, 4(4), pp. 387-392.
- Fodor, O., and Werthner, H. (2004). Harmonise: A step toward an interoperable e-tourism marketplace. *International Journal of Electronic Commerce*, 9(2), pp. 11-39.
- Gillespie, T. (2000). SAMS teach yourself today e-travel. *Library Journal*, 125(10), pp. 186-186.
- Gratzer, M., Werthner, H., and Winiwarter, W. (2004). Electronic business in tourism *International Journal of Electronic Business*, 2(5). pp. 450-459.
- National Statistical Bureau (2005). *Statistical Yearbook of Bhutan 2004*. Thimphu, Bhutan.
- Puhetmair, F. (2004). It's time to make eTourism accessible. *Lecture Notes in Computer Science*, 3118, pp. 272-279. Springer.
- Rumetshofer, H., and Woss, W. (2004). Tourism information systems promoting barrier-free tourism for people with disabilities. *Lecture Notes in Computer Science*, 3118, pp. 280-286. Springer.
- Smith, A. D. (2004). Information exchanges associated with Internet travel marketplaces. *Online Information Review*, 28(4), pp. 292-300.
- Stranieri, A., Zeleznikow, J., and Yearwood, J. (2001). Argumentation structures that integrate dialectical and non-dialectical reasoning. *Knowledge Engineering Review*, 16(4), pp. 331-348.
- Werthner, H., and Klein, S. (1999). *Information technology and tourism – A challenging relationship*. Springer Computer Science.

Wickramasinghe, L.K., Amarasiri, R., and Alahakoon, L.D. (2004). A hybrid intelligent multiagent system for e-business. *Computational Intelligence*, 20(4), pp. 603-623.

Woss, W., and Dunzendorfer, A. (2002). Homogeneous EDI between heterogeneous web-based tourism information systems. *Lecture Notes in Computer Science*, 2455, pp. 183-192. Springer.

Online sources

European Travel Commission (ETC) URL <http://www.etc-corporate.org/>

Tourism Trends for Europe (prepared by ETC) URL <http://www.etc-corporate.org/images/uploads/Diptych%20ETC-ETAG.pdf>

New Media Review (hosted by ETC) URL <http://www.etcnewmedia.com/>

TourMIS a Marketing-Information-System for tourism managers URL <http://tourmis.wu-wien.ac.at/>

World Travel & Tourism Council URL <http://www.wttc.org/>

The PRISMA project on eTourism URL <http://www.prisma-eu.net/accesspages/tourism.htm>

Final report from the PRISMA project URL <http://www.prisma-eu.net/deliverables/SG6tourism.pdf>

The HARMONISE project on eTourism URL <http://www.harmo-ten.org/>

The European Commission's information page about tourism URL <http://europa.eu.int/comm/enterprise/services/tourism/tourismeu.htm>

The European Commission's communication on tourism: Working together for the future of European tourism (COM(2001)665 final) URL <http://europa.eu.int/comm/enterprise/services/tourism/tourismeu.htm#future>