

An initial exploratory study into the use of ICT in tourism by developing economies as suppliers of hospitality and destination

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Not many industries that offer intangible goods are so dependent on information gathering, processing, storage and presentation as tourism is. Therefore any modern tourist business that pays inadequate attention to its use of ICT is likely to become uncompetitive. Although the level of ICT use in tourism differs from place to place, less developed economies can compete better by the use of technologies such as the internet and open source software. Yet, a systematic study of the use of ICT by the tourist industry in less developed economies is scanty or lacking in academic literature. Therefore there is inadequate knowledge of how developing countries can benefit from the potentials that ICT offer to the tourist industry. This paper attempts to fill this gap in knowledge by revealing from literature the potential contributions of ICT in the tourist industry and proposes that these contributions be used in a future study of less developed economies in their role as suppliers of hospitality and destination aspects of tourism.

1 INTRODUCTION

Besides few industries like the oil, tourism is currently the greatest income generator. The exotic locations in developing countries makes tourism a potential instrument for assisting in the effort to bridge the gap between the developed and the developing worlds. The tourist industry has immensely benefited from and given benefits to the information technology industry. An example is the computer reservation system (CRS) or the global distribution system (GDS) which has been the first multi-organisational and global information system. The marriage between tourism and ICT is now firmly recognised by the new term “etourism”, the “e” standing for “electronic”. Some of the tools of ICT, such as the internet, reduce the entry barrier to the tourist industry and therefore can potentially bring developing economies at par with the developed counterparts. Players in the tourist trade are broadly classified into suppliers and consumers (cf Buhalis, 2003; Inkpen, 1994; Werthner and Klein, 1999). The comparatively low income levels in developing economies places them more on the suppliers’ category. Research into the extent of use of

ICT tools for tourism in developing economies is scanty or non-existence; and therefore there is inadequate knowledge of how to fully benefit from the facilities offered by information systems. This study attempts to address this problem by proposing an examination of the application of etourism in less developed countries with particular emphasis to the supply part of the equation.

2 LITERATURE REVIEW

Though commonly used, it is difficult to find an agreed definition for “tourism” and perhaps there is no practical benefit in agonizing over its precise meaning. Our intuition agrees with the definitions of both the Compact Oxford Dictionary and the Cambridge International English Dictionary which, respectively, define tourism as “the commercial organization and operation of holidays and visits to places of interest” and “the business of providing services such as transport, places to stay or entertainment for people who are on holiday”. Both dictionaries typify tourism with travelling and the provision of some holiday or pleasure.

Other authorities extend the scope of these definitions. For example, the World Tourism Organisation defines tourism as “the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes.” (Gee, C Y and Fayos-Solá (eds), 1997, 5). Nonetheless, not all travel is tourism: for example daily commuting to work outside a particular city can hardly be classified as tourism. The World Tourism Organisation’s (1995, p 22) classification of travellers (see Figure 1) suggests that a travel has got to make the traveller a visitor (and an overnight one) before she can be regarded as a tourist. The definition also indicates not only pleasure, as some may be inclined to think, but that business and other factors such as health treatment or religious pilgrimages can motivate tourism. Perhaps the most inclusive view is that of Gee, C Y and Fayos-Solá (eds, 1997, p 9) who classify prehistory people who travelled to gather food and to avoid danger as the pioneers of tourism.

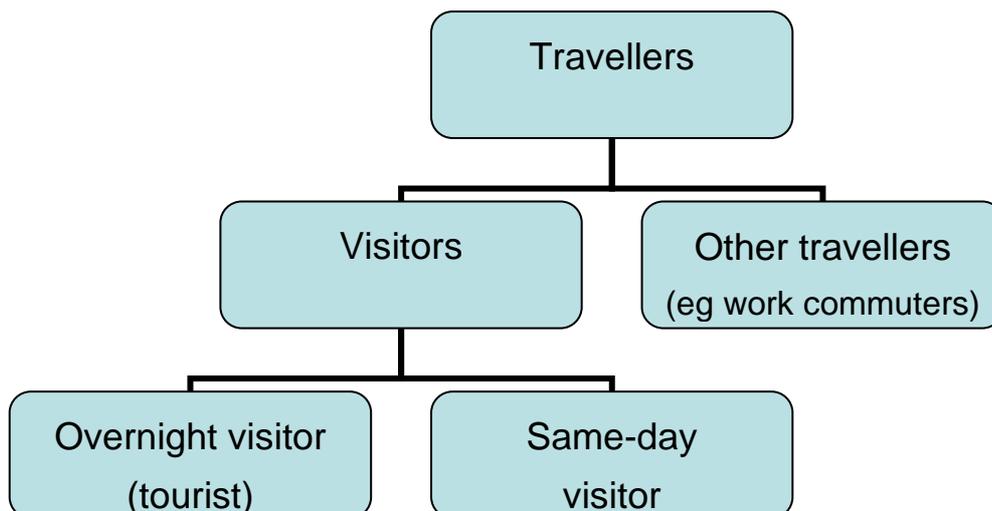


Figure 1 Types of travellers. Source: adapted from WTO (1995), *Concepts, Definitions, and Classifications for Tourism Statistics*, p 22.

The essence of foregoing discussion seems to be that tourism involves travel (though excluding some travellers like daily work commuters) and that there is some entertainment, pleasure or fulfilment to be derived. It also appears the modern tourist industry caters for both tourists and others who may not strictly be regarded as tourists, such as business visitors, inasmuch as the latter use the facilities of the tourist industry, for example, hotels and flight booking. Besides, it is not uncommon for ‘non-tourist’ travellers to cross the boundaries of their activities into some pleasure-seeking pursuits. For instance, it is tours of exotic sites and cultural displays are sometimes arranged for business visitors.

The components of tourism range from provision of safe, quality and wide ranging transportation to infrastructure, accommodation, food and beverage, support services and travel distribution services. The increased demands for this wide range of services make tourism the highest contributor to world exports than all sectors except petroleum products and motor vehicles/parts/accessories (Gee, C Y and Fayos-Solá (eds), 1997, 17).

Rather than seeking precise definition for tourism, it may be more interesting to consider the combination of factors that have motivated the current growth in tourism. Some of these factors are the desire for pleasure and education from unusual environments, mobility, accessibility and affordability. To that list should be added advancement of modern technology (including information and communication technologies - ICT) which pervasively enhances other factors. ICT has been used by way of colourful and appealing advertising on the TV to grow people’s desire to visit exotic spots of the earth. Modern

technology has also improved travel safety. It has also enhanced affordability not only in terms of lowering travelling costs but also in producing more leisure time from work and providing higher incomes.

The feasibility of combining tourism and ICT to achieve significant growth in developing economies is proved in cases like Mauritius which is claimed to attain one of the highest standards of living in Africa. In the 1990s, its sustained growth was more than 6 per cent and in 2003, it reached GDP per capital of \$11,287 (in PPP terms) (OECD Development Centre, 2006). The Internet technologies and their increasing affordability especially with the open-source software offer great potential of providing web presence to less developed economies. The east coast of New Zealand’s North Island has taken advantage of this potential with their web-based virtual community termed “Kiwitrails” (Milne *et al*, 2005).

In terms of research in tourism, it has to be multi-faceted. Studies can be conducted from one or a combination of the following disciplines: sociology, history, geography, political science, economics, biological sciences (for the environmental issues for example) and even computer science or information systems. Perhaps putting information systems in the centre or the forefront of the approaches is appropriate because not many industries that offer intangible goods are so dependent on information gathering, processing, storage and presentation as tourism is (cf Poon, 1993 and Buhalis, 2003). In practice any tourist business that pays inadequate attention to its information systems strategy is likely to become uncompetitive. The rest of this section will explore the specific contributions that information technology

provides the tourist industry, especially its hospitality and destination components.

Buhalis (2003) has classified eTourism, which can be described as the use of information systems to facilitate tourism, into eAirlines, eHospitality, eTour operators, eTravel agencies, and eDestinations. Studies could be conducted on all of these components but not all of them are immediately relevant to less developed economies as suppliers of tourism services. For example, many developing economies may not have independent fleet of airlines of which activity is the main contributor to its economy. Conversely, most developing economies have desirable destinations that would attract tourists. Also, local businesses and individuals are likely to be significantly involved in the hospitality component of tourism. International tour operators and travel agencies, such as Thomas Cook, tend to dominate the market in less developed economies. Thus, this investigation has chosen to concentrate with eHospitality and eDestinations¹ which are areas that are more likely to contribute to the less developed economies.

2.1 eHospitality

Hospitality as a component of tourism is normally used to describe hotels and similar accommodations as well as restaurants and catering organisations (Holloway, 2006). Hospitality is therefore undoubtedly a very important aspect of the tourist industry. Hotel customers expect a “high touch” in the first place before a “high tech”. They expect to be attended to by highly knowledgeable, friendly and efficient hotel staff. Nonetheless, ICT has been used to assist the delivery of hospitality services. Some of the key ways are (Buhalis, 2003):

- Improved capacity management and operations efficiency
- Central room inventory control
- Last room availability information
- Yield management capability
- Marketing, sales and operational reports
- Marketing research and planning
- Management of supply chain
 - Eg Travel agency tracking and commission payment
- Tracking frequency flyers and repeat hotel guests
- Direct marketing and personalised service for repeat guests
- Group booking and frequent individual travellers (FITs)

¹ Instead of airlines, tour operation and travel agencies as components of tourism.

- Provision of personalised services through mobile devices eg with Bluetooth
- Provision of “home away from home” with high tech entertainment eg video games
- Provision of “office away from office” eg internet facility to customers
- Internal management of operations from transactions to human resources

Most of the items on the above list apply only to hotels and accommodation providers but the list also includes the activities of restaurants and catering services, eg internal management of operations and human resources.

2.2 eDestination

Destination is the *raison d'être* for traveling since it is at the destination that tourists enjoy the sandy and sunny beaches, the water falls, the beautiful mountains or lakes, the coral reefs, interesting people to talk to (my sociology professor reminds me!), facilities of a holiday resort or other site attractions. Destinations are normally owned and managed by the private and public sectors individually or in partnership. The main contributions of ICT in the destination aspect of tourism are to plan, manage and market. The different ICT tools used are generally termed as destination management systems (DMS). The general facilities that these systems provide are (Buhalis, 2003):

- Information search
 - By category, geography, keyword
- Itinerary planning for customers
- Reservations
- Customer/contact database
- Customer relationship management
- Market research and analysis
- Image library and PR material for press
- Publishing to electronic and traditional channels
- Event planning and management
- Marketing optimisation and yield management
- Data editing and management
- Financial management
- MIS and performance evaluation
- Economic impact analysis
- Access to third party sources
 - Weather, transport timetables, theatre etc

2.3 The Internet

The internet can provide global visibility to remote or unknown suppliers of both hospitality and destination. Because of its relatively low cost of deployment especially with open source software, tourism suppliers in developing economies can attempt to compete with their counterparts in developed

economies. An example of a destination in a developing economy that has taken advantage of the internet facility in Cross River State and Obudu Cattle Range. In this particular case, the public sector (Cross River State government of Nigeria) uses the internet to promote the destination and hospitality features in its territory (see <http://www.crossriverstate.com/>). Obviously, this is not an isolated case. Nonetheless, one can hardly find a study in literature that attempts to examine the extent to which less developed economies take advantage of the offerings of ICT in the tourist industry and more importantly, how their use of ICT in this important economic area could be maximised.

3 GAP IN KNOWLEDGE AND RESEARCH QUESTION

There is scanty and insufficient knowledge of the extent to which hospitality and destination sectors of the tourist industry in less developed economies use ICT in their activities.

This situation raises the question: as suppliers, to what extent are the hospitality and destination sectors of the tourism industry in developing countries taking advantage of the enhancing value of ICT?

4 AREAS FOR FURTHER STUDIES

This paper proposes a primary research that collects questionnaire and interview information from a sample of hospitality and destination suppliers in developing economies to establish in the first place their level of application of ICT in their activities. The primary research will revise and use the list of ICT functions stated above.

In the second place, an investigation should be carried out to discover any problems that may hinder the

realisation of the full potentials of ICT for tourism in developing economies. The eventual objective should be to recommend steps that should be taken to allow developing economies to take full advantage of this tool.

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