INFORMATION TECHNOLOGY IN INTERNATIONAL TOURISM

Tourism is an important sector in the economy contributing around 10% to worldwide GDP, projected to rise to nearly 11% by 2014 [1]. Tourism was one of the first sectors to embrace Information Technology (IT). IT is crucial to the tourism industry and its success. IT has brought with it a number of changes and challenges that affect business and tourism. Challenges they pose for the sector and tourism operators generally are also identified.

Tourism has a significant economic impact at an international, domestic and regional level. This impact is underlined by statistical evidence demonstrating the significance of tourism in terms of GDP, employment and economic development [1]. The tourism industry can be seen as one of the first business sectors where business functions are almost exclusively using information and communications technologies (ICT) [2]. Information Technology (IT) and ICT has played an important role in the development of tourism. Computerised reservations Systems (CRS) were among the first applications of IT worldwide.

The industry is one of the more successful areas of e-commerce because it is largely consumer oriented and since services and the provision of information is at its centre. Werthner & Klein suggest tourism is a hybrid industry since even though it is dominated by the provision of information, essentially it is about a physical product. This requires the “seamless integration of information and physical service, with flexible configurations of the physical and the informational parts” [3, p. 257.]

ICT facilitates this integration and enables customisation of tourism products to suit the needs of individuals. Due to changes in consumer behaviour of the tourist the market is becoming more segmented with each potential consumer belonging to a number of market segments simultaneously. Tourist operators need to be aware of these changes and be equipped to respond, or better still, take a proactive approach. The challenge for the tourism operator is the provision of accurate, localised data, increasingly via IT, whilst maintaining a relationship with the tourist. Rather than being just transaction based longer term relationships need to be fostered and IT can play a role in this relationship building.

Tourism is dominated by the need to provide fast and accurate information to the consumer. The first step to achieve this goal of a one-stop service is via global
distribution systems (GDS), a form of IOS. GDS evolved from computer reservation systems and enable the aggregation of information from airlines which enables travel agents (as information brokers) and tourists to ‘make reservations and order other services in a single marketplace’ [4, p. 60]. Examples of GDS are Sabre, Galileo, Amadeus and Worldspan.

There is increasing debate concerning the long term viability of the large GDSs. The systems themselves are dated, based on 1960s architecture and code, never intended for use with the Internet and as proprietary legacy systems are difficult to interface with existing modern computer and network architectures [5]. Chains of hotels (tier 1 players) generally have in place integration of the Property Management System (PMS) with the corporate Central Reservation System (CRS) and GDS. CRS integration allows for individual properties to benefit from the extensive reach of the chains marketing network and to allow for cross selling amongst properties within the chain. GDS integration allows chain properties to extend their reach beyond that of their chain marketing network. This interoperability of systems is an example of collaboration around IT (known as collaborative commerce), especially the CRS which has been the most commonly used Wide Area Network (WAN) application in hotels. This extends insofar as some independent hotels link to a GDS such as Sabre.

Interoperable systems already exist in chains, but do not exist amongst independent hotels. Independents appear to resort to subscription to affiliate reservation networks that allow non-chain properties to participate as overflow facilities rather than network amongst themselves. In this way “independents (are able) to maintain their individuality and distinctive methodology, while still benefiting from the economies of scale that an affiliation with a larger group of like-minded properties can offer”[6]. Softwares that are available to facilitate such sharing of information as well as the Internet and the semantic web are means by which this can be achieved.

LITERATURE