

# [The impact of ict on accommodation sector tourism essay](https://assignbuster.com/the-impact-of-ict-on-accommodation-sector-tourism-essay/)

Domestic and international tourism in New Zealand has grown significantly in the past decade and shows every sign of continuing to do so. A vital component of the tourism industry is the Accommodation sector. Over 3000 accommodation enterprises employ more than 20, 000 New Zealanders on a full time equivalent (FTE) basis and bring important economic benefit to both rural and urban settings. The accommodation sector is characterised by considerable uptake of new Information and Communication Technologies (ICT) in areas such as bookings, Property Management System (PMS) and back-office functions. This research aims to create a better understanding of how ICT adoption is influencing the demand for, and use of, accommodation in this important sector and how enterprise owners and managers feel about the ICT issues that stem from the tourist influences.

The research is based on: (i) a review of global and local research in tourism, ICT and accommodation use; our findings reveal that ICT adoption is having important impacts on accommodation use and demand in both small and large enterprises, the researcher conclude with the presentation of a major findings and some thoughts on approaches that may enhance the ability of the accommodation sector to cope with the complex interactions between ICT adoption and tourism activities.

## 1. 2 INTRODUCTION

The increasing use of the Internet and other communication technology is changing the way the industry does business, allowing small operators to access those interested in their product irrespective of location, and allowing firms of all types to reap productivity gains, (Bahalis 1998, 2003). Tourists are also able to benefit from additional transparency in pricing and the ability to customize the experiences they seek (Inkpen 1998; Milne et al 2004).

Medlik and Ingram (2000) stated “ in many years, hotel are important attractions for visitors who bring with them spending power and who tend to spend at a higher rate than they do when they are at home. Through visitor’s spending, hotel thus often contributes significantly to local economies both directly and indirectly through the subsequent diffusion of the visitor’s expenditure to other recipients in the community.” However, the pattern and structure of the accommodation sector, growth in tourism, increase in capacities, globalisation and technology innovations has been the contemporary force for the hotel chains to extend their presence worldwide, achieving huge marketing success and market identity. Their success is not based only on promoting only one standardised product buy by introducing multiple brands which differentiate their services offered in the eye of the tourists.

According to the international Hotel and Restaurant Association (IHRA), ‘ there are over 300 hotels chains which comprised one third of the world’s accommodation capacities.

New Zealand is very much part of this dynamic and competitive tourism environment. The New Zealand Tourism Strategy 2010 (TIANZ 2001) identifies tourism as one of the nation’s key earners of foreign exchange and argues that the industry is likely to play a growing role in the future of New Zealand’s economy. During 2002 over 2 million international visitors spent an estimated NZ$6. 140 billion. Taking into account the direct and indirect effects of this expenditure and the not inconsiderable (but harder to estimate) impacts of domestic tourism we see that the industry contributed approximately 9% of New Zealand’s GDP for the year to March 2002 and 14. 3% of total exports (Statistics New Zealand, 2003).

Information and Communication Technologies (ICT) are a key element in attempts to enhance the yield of the industry. It has also been suggested that ICT change the very rules of tourism with industry leaders being forced to adopted new managerial and strategic ‘ best practice’ (Buhalis 2000, Law 2001). The New Zealand Tourism Strategy has as one of its key strategic objectives the need to build the ICT capability of New Zealand tourism enterprises, especially among the 85-90% of businesses that are classified as small tourism enterprises (STE) (Nodder et al 2003a). The Strategy identifies tourism as a knowledge and information-based sector and highlights the ability of ICT to collect, analyse and distribute information widely across the sector supporting a better understanding of visitors’ needs, preferences and behaviours. It is also argued that ICT can foster a higher degree of interaction between stakeholders through an internet presence, email, electronic discussion groups and teleconferencing. Such networking and linkage formation offers the opportunity to realise enormous benefits (Nodder 2003; Nodder et al 2003).

This research addresses these issues in the context of the New Zealand accommodation sector. Accommodation represents the cornerstone of both the international and domestic tourism markets and accounts for a major component of total tourist spend. The sector is relatively labour intensive and is a significant employer in both urban centres and more peripheral rural regions (Morrison and Thomas 1999; Statistics New Zealand 2003). It is a diverse industry including everything from large hotel with multinational organisational structures, through to small owner operated motels and bed and breakfast establishments.

## 1. 3 Aims and Objectives

The core objectives of this research are to:

To develop a clearer picture of the current competitive context facing the accommodation sector in New Zealand, in order to provide a backdrop to the ICT and labour use dimensions that from the focus of the research.

To gain an understanding of how ICT is being adopted and used in the New Zealand accommodation sector and to review wherever possible the differences that exists between small and large operations and between those operating in rural and urban settings.

To provide a clear sense of how ICT adoption is influencing the demand for tourist and the workplace organisation and use of workers. In particular we focus on themes of hiring, internal communication, productivity, turnover and retention and processes of customer out-sourcing.

To synthesize and discuss findings and present some tentative ideas that can assist the accommodation sector, and the regions that depend on it, to better anticipate and respond to the sometimes complex links between ICT adoptions and tourism demand for modern technology.

## 1. 4 LITERATURE REVIEW

It is important to note the international literature has generally shown that in the past small tourism firms have been less likely to implement ICT than their larger counterparts (Mutch, 1998; Paraskevas, 2002; Milev and Marsh 1998). Studies in the US, for example, show that managers in larger properties (greater than 300 rooms) attach significantly more important to the Internet as a tool to make reservations and analyse the competition than their smaller counterparts. Similarly, they rated its importance as a means to communicate with colleagues, vendors and corporate offices significantly higher (Van Hoof, et al, 1998). This is also fits the patterns seen in the studies conducted in the UK (Sigala et al, 2002, Evans and Peacock 1999; Buick, 2003, Main, 2001) and elsewhere (Milne and Pohlmann 1998).

Resent years have seen a growing number of small operations embracing ICT for no other reason than they simply have no choice (Ateljevic 2002). The competitive cost of being ‘ invisible’ in a sector that is increasingly dominated by web-based booking systems is too great to bear for small operators who are already facing low margins and growing competition (Buhalis 1999). Thus ICT uptake is growing rapidly and, in the case of New Zealand, the use of computers, email and the Internet is reaching near saturation levels (Nodder et al, 2003a).

Nevertheless it is important to note that there are varying levels and degrees of ICT use and many commentators argue that the sophistication with which hard and software is used still lags behind larger operators, even though the actual equipment may be in place (Milne et al, 2004). The reason for the past, and sometimes present, lag in ICT uptake and use by small businesses are many and varied and are inevitable shaped by both internal and external (environmental) factors, ICT use by smaller accommodation operators tends to be dominated by accounting functions, data processing and inventory management tools. While email and website use is also increasingly common as noted above this is not necessarily enough to meet the evolving demands of increasingly technologically savvy consumers.

Buhalis and Laws (2001) discuss the behaviour of these new consumers who are becoming more used to interacting in an electronic environment and are increasingly demanding that tourism enterprises be easily accessible on the Internet.

Not only do they require access to information but also the ability to book online and submit payment in a secure environment (Mason and Milne 2002; Gatty and Blalock 1998).

Buhalis (2003, 143) comments on a number of factors that determine the introduction of ICT by SMTE. Factors “ originating in political, social and economic forces” can lead to the uptake and development of technology as part of broader strategies. Thus it could be said that the ‘ new, sophisticated’ consumer is pushing SMTE to respond and increase efficiencies (Nodder 2003; Milne et al, 2004). Similarly, SMTE who are forming strategic alliances in order to increase their influence on a global market require the support that can be delivered by up-to-date ICT.

As pointed out by Cooper (1998), “ accommodation is the fundamental element of the tourism product, not only is it the largest and most ubiquitous sub-sector within the tourism economy”. The accommodation sector is the essential components for the tourism development, planning and economy within any destination and consists of different sub-sectors from which hotels can be considered as the significant one. It is on this premise that Medlik and Ingram (2000), contributed by saying that “ the primary function of a hotel is to accommodate those away from home and supply them with their basic needs” but through the years the diversification in the provision of accommodation as tourism products, change in consumer demand, needs and expectations, globalisation and modernisation challenge has given rise to an increase level of ICT competition among accommodation service providers.

The accommodation sector and the impact of technology have had great influence on the distribution of the accommodation products. The development of technology has seen accommodation providers reviewing their marketing strategy and delivering their product via an innovation distribution channel. The Global Distribution Channel (GDS) and Computer Reservation Channel (CRS) represent the strongest distribution system for hotels and international chains. According to Travel Mole (2001), “ the Hotel Electronic Distribution Network Association has reported that hotels bookings made through Amadeus, Galileo, Sabre, Sahara and World span grew 11. 4 percent in 2000, with 48, 787, 000 bookings.”

The evolution of the internet provide the opportunity for the online booking through a central reservation system as well as the implementation of online marketing strategy and interaction with customers such as the e-commerce.

However, it shows that despite the impact of the environment, seasonality or technological, the accommodation industry will still continue to innovate and diversify and expand to cater the demand in tourism products.

## 1. 5 Accommodation, and ICT – a review

ICT are increasingly recognised as a critical part of the strategic management of accommodation organisations irrespective of size (Buhalis, 2003 p51). Studies of the significant intra-firm impacts of new technologies have been paralleled by broader analyses of ICT ability to alter distribution network and global industry structures (Nodder et al, 2003).

Internally there has been a focus on the impact of technologies in both front office and back office areas with an emphasis on point of sale (POS) technologies, in-room entertainment, back-office accounting, human resources management and supplier relationships (Anon 2002b; 2003b, Baker and Sussman 1999).

Emphasis on the broader impacts of ICT has been placed on airline-based Global Distribution Systems (GDS) and Computer Reservation Systems (CRS), Property Management Systems (PMS) and Destination Management Systems (DMS) (Milne and Ateljevic 2001). The latter have been used by enterprises to enhance performance in the global distribution channels that dominate international tourist flows, and to create seamless integration between internal technology use and the outside world (Go and Pine 1995; Gray et al, 2000).

In simple terms, tools that facilitate the transmission of information and a level of interactivity between tourism operator and consumer are indispensable to each stage of the tourism value chain, especially when considering distribution and the ability to enter new markets (Buhalis 2001a, b).

There are a number of ways that Information and Communications Technologies can enhance the performance of an accommodation enterprise and assist in gaining competitive advantage (Baker et al, 1999; Baum and Odgers 2001; Buhalis 2001c, Milne and Pohlmann 1998). These include; allowing a quicker response time to market and immediate processing of enquiries; integrating different applications to allow seamless processing with reduced error; sharing of resources; increasing capacity of work flow and worker productivity; customization and/or standardisation of key product offerings; flexibility and the adaptability needed to keep pace with the fast moving market, and the ability to creating communities of online suppliers and clients (Murphy 2003; Mutch 1998; Sigala et al 2001).

The relationship with the customer can therefore be enhance at the information gathering and pre-arrival stage, during the arrival, check-in and stay stage, and also in the departure and post-stay stage. The ability to ‘ mine’ data gathered from clients and to measure the performance of individual workers and departments also makes it easier to benchmark, compare and contrast performance across global boundaries while also creating localized improvements (Van Hoof 1996, 2003).

The accommodation businesses has this concern of improving market share and increase profitability as a result of providing a unique experience to customers with the accommodation structure located within an ecologically fragile natural environment. So it is very important that accommodation businesses adopt an environmental management scheme by adopting water conservation concept by reducing water usage mainly in areas where there are water shortage, energy conservation, for example the Hong Kong Guide identify a way for saving energy with the use of a computer which controls energy and even rooms in a way that as soon as a room is vacated and doors shut the light will shut automatically.

Technological innovation is also depicted as an improvement in a product or service performance in terms of quality, cost, speed or number or characteristic (Cohen & Levinthal, 1990). The technological innovation within the tourist accommodations activity has to capture the particular and differential features of sector, characterized by the nature of the service. According to Gallouj and Winstein (1997) there are some aspects that characterize service and have a great influence on the definition of technological innovation. Those can be relevant to the accommodation sector in the following ways:

First, there is a close interaction between production and consumption (coterminality) that makes difficult the typical product and process manufacturing distinction. The coterminality implies that the innovation activities will focus on service individualization, adapting the service provided to the customer requirements. Moreover, the coterminality leads to a higher degree of service heterogeneity – the exchange object differs from one case to another. Only institutional changes, effectively implemented as a business strategy, must be regarded as technological innovations, and not those spontaneously generated and derived from human interaction. This characteristic fits on the hotel set of services provided to their customers.

The second is the intangibility and growing information contents in the provision of services. The information and communication technologies play a critical role in the innovation activities of tourist accommodation businesses: to reach the potential customers with information that helps to get the deeper understanding of the service purchased; to reach the largest share of the demand; to obtain and process the information for a better business performance.

The role of human resources as a key competitive factor. The importance of the human factor in service activities is associated with the capability to establish the quality and features of the service finally provided. Training and education activities are explicitly considered as one way to improve and upgrade the technological capabilities of service companies. Changes in the organization architecture can be linked to the introduction of new technologies, and should be included as technological innovation activities. These organizational issues are relevant in the accommodation industry to fulfil the services requirements.

As Weiermair (2001) notes, Information and Communication Technologies play an integral role in enabling tourism operators of all types to “ act local and think global”. Information and Communication Technologies have been claimed by many commentators to be the backbone of the tourism industry (Wong 2001; McCann 2001; Applebee et al, 2000; Connolly and Olsen 2001) and accommodation is no exception to this rule. ICT is seen as a vital, and often somewhat overlooked, element that shapes and underpins management of operations, human resources, sale and marketing and accounting and finance (figure. 1) Indeed ICT is seen more and more as an enabler of competitive improvements for both small and larger enterprises alike (Anckar & Walden 2001; Gretzel and Fesenmaier, 2000).

The tourism industry includes a wide range of activities such as restaurants, entertainment, transportation and accommodation. A rigorous and reliable analysis of the technological change focuses on one of these activities that include a homogeneous set of companies with similar production functions – inputs, outputs and available technology – and market environment. The homogeneity of the available data and the relative importance within the industry, make advisable to choose the hospitality business as the field of the study. The lodging sector is an outstanding tourist activity since is a sine qua non in the provision of all the other tourism services, being the basic requirement of the tourist at the destination point.

## Figure 1: The integral role of ICT in the accommodation sector

(Connolly and Olsen, 2001, 87)

Connolly and Olsen, 2001, 87)

Within New Zealand, like elsewhere around the world, the government and major telecommunications enterprises have a vital role to play in providing the connectivity and bandwidth to support ICT uptake and effective use in business (e. g. Ministry of Economic Development Project Probe initiative) and in which industry and business leaders to build capabilities (a key objectives of the eCommerce Action Team ECAT). As Nodder (2003) notes, however, these initiatives have often highlighted the needs of large businesses, sometimes overlooking the SME that are vital to sectors such as accommodation.

## 1. 6 The New Zealand accommodation industry – an overview

The New Zealand accommodation industry is made up of a range of segments and is not an easy sector to define. The researcher begin this section with a short discussion of definitional issues revolving around accommodation type and size, then address issues related to the sectors overall size, economic value and geographical structure.

## Defining accommodation and size

The key elements are defined below and are based on the descriptions provided by one of the nation’s leading providers of accommodation based information – the Automobile Association (see www. aatravel. co. nz):

## ¬ Hotels: includes both hotels and resorts

Hotels of world class standard are found in major cities, leading provincial and resort areas. They have bar and restaurant facilities. Rooms have phone and TV, toilet, bath/shower facilities and usually have tea/coffee making facilities. Country hotels and pubs offer clean, pleasant rooms. Hotels and pub can refer to taverns without accommodation. Some sporting lodges and upmarket resorts offer exclusive hideaway location with top-class facilities.

## ¬ Motels: includes motor inn, apartments and motels

These are a popular form of accommodation for domestic travellers and family groups as most units offer self catering facilities. They also have phone. TV tea/coffee, bathrooms and toilet facilities; they have made up beds, bedding and parking. Breakfast can usually be ordered at an extra cost.

## ¬ Hosted: includes private hotels, guesthouses, bed and breakfast, and holiday farm (farm stay) accommodation

Guesthouses may sometimes be in restored older buildings, not all include breakfast. Private hotel means no liquor license. Home-stay and farm-stay normally means accommodation is available in the family house, though a separate annex or cottage may be included. Bathroom may be separate or shared. Guests may share home cooked meals with their hosts or fellow travellers, breakfast is usually included in the tariff, and other meals are sometimes available by prior arrangement.

## ¬ Backpackers/Hostels

Generally independently owned, with an emphasis on enabling travellers to mix and mingle. Most offer a mix of shared rooms (dormitories) and double/twin/single rooms. Prices can start as low as $15. The focus market for this group is often younger independent travellers.

## ¬ Caravan parks/Camping grounds.

Tent sites, caravan sites, campervan sites etc with central toilet facilities and recreational facilities (games, TV rooms), some also offer onsite cabins which offer beds and a roof but little more, some are more upmarket with ensuite facilities, TV etc.

## Industry Characteristics

The New Zealand accommodation sector continues to grow although periods of International uncertainty and domestic overseas economic fluctuations have impacts on the industry from time to time. Although there are some sectoral fluctuations overall trends in occupancy rates have been rising during the past five years (Figure 2). The relatively robust nature of the industry is underlined by the fact that during this period the global tourism industry has faced some of its most challenging times with the spectre of terrorism and health related pandemics creating a major downswing in international arrivals for several developed and developing nations.

## Figure2: Five years trends in accommodation sector occupancy rates

(Source: Statistics New Zealand, 2004)

Performance in the past year has been steady with most segments of the industry showing little growth. The overall occupancy rate for February 2004, excluding Caravan parks/camping grounds, was 69 percent, the same rate as that recorded a year earlier (Table 3. 1). Hotels and motels both recorded rates of 72 percent in February 2004, while backpackers/hostels recorded a rate of 63 percent. Four of the five accommodation types recorded increases in guest nights in February 2004 compared with February 2003. Total guest nights in short-term commercial accommodation were 3. 2 million in February 2004, a 3% increase compared with February 2003 and 10% increase compared with February 2002. Motels (up 53, 000 or 5 percent) recorded the largest absolute increase in guest nights, followed by backpackers/hostels (up 41, 000 or 11 percent). Motels had the largest share of total guest nights in February 2004 with 33 percent, followed by hotels with 30 percent and caravan parks/camping grounds with 22 percent.

## 1. 7 CONCLUSIONS

This research has highlighted a number of key issues in the relationship between ICT adoption and accommodation use/demand in the New Zealand hotel sector. The main findings can be summarised as follows: In common with other parts of the world, the New Zealand accommodation sector is becoming increasingly reliant on ICT. Large hotels have already invested heavily and are now enhancing and fine-tuning their use of more mature technologies. For small operations the take-off in ICT use has occurred more recently. Future investment in ICT is unlikely to slow. The Internet and the use of on-line information by consumers and suppliers are playing a major role in influencing overall accommodation industry performance and organisation. The impact of on-line booking is being felt across all segments of the industry. As the Internet evolves into a single, powerful ‘ information highway’ supported by diverse technology applications, there will be many opportunities for more flexible and efficient sales processes, data-warehousing, customized service provision and labour monitoring.

## 1. 8 RECOMMENDATION

While ICT will continue to improve efficiency and reduce cost in the large accommodation sector its main role in the future is seen as the facilitation, provision, and monitoring of service quality and the blurring of divisions between departments and different properties. There is a clear sense that technology’s major impact on job reduction has already occurred. There is a real need for workers to have a deeper understanding of not just the technology itself, but also of how the technology is embedded within overall business operations and performance.

The task of the improving service and performance through ICT adoption in accommodation organizations is complex. The implementation of technology may very well assist in improving service quality but research shows quite clearly that technology and information alone do not confer competitive advantage. If managers want to convert ICT investments into real service quality and performance improvements they must understand its links to, and impacts on, workers, managers and suppliers. In simple term the work of managers is becoming more complex and they too increasingly require a deeper understanding of ICT as a business tool and its potential applications in the business setting.

In recent years accommodation businesses have been influenced by substantial ICT change, both from within and outside the industry. The experience gained in recovering from adverse impacts, or from adapting to take advantage of new opportunities, has been hard won. Lessons learnt from such valuable experiences need to be shared to ensure the continued development of the industry. At the same time it is clear that the role of ICT in the industry will grow and evolve in the next few decades, bringing with it a range of new labour and training need. There is widespread consensus that formal training in the sector falls short of the evolving industry requirements for skilled workers. Hotel and tourism schools appear to be having problems keeping up with technological changes which require.

In concluding the researcher is of the opinion that there is a need to better facilitate access to training programmes for operators, their staff, and cluster organisations. Improved feedback to industry on tourism demand and supply trends is required, and the establishment of formalised communication between tourist and tertiary providers is increasingly necessary. Recent initiatives highlighted in the Tourism Strategy will certainly help to overcome these issues. It will also be important to monitor the efforts made by groups like the CTC in Canada and Service Skills Victoria in Australia, as they establish new bodies that link the accommodation industry and training providers together to lead workforce development for the sector. Such bodies have the potential to assist industries, enterprises, and their workforce to integrate skills development with business goals.

Based on the above role of ICT in the hotel industry, the impact of ICT on the accommodation sector can not be measured.

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