NZ Accommodation Providers & ICT: Impacts on Labour Use & Demand

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Abstract

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 benefits 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 and back-office functions. This report aims to create a better understanding of how ICT adoption is influencing the demand for, and use of, labour in this important sector, and how enterprise owners and managers feel about the training issues that stem from influences. Our research is based on: (i) a review of global and local research in tourism, ICT and labour use; (ii) in-depth interviews with 160 small accommodation providers conducted between 1998-2004; (iii) in-depth interviews with 6 large hotels in the Auckland region; and (iv) a nation-wide survey of accommodation providers (468 responses). Our findings reveal that ICT adoption is having important impacts on labour use and demand in both small and large enterprises, but that we need to view these as part of a broader evolution in the competitive context within which the sector operates. We conclude with the presentation of our 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 labour use.

Contents

1 Introduction

In 2001 international tourism expenditure amounted to US$462 billion. By 2013 it is forecast to reach US$2,279.2 billion (WTTC, 2003).The World Tourism Organisation (1999) predicts that the tourism sector will expand by an average of 4.1% a year over the next two decades, surpassing a total of one billion international travellers by the year 2010 and reaching 1.6 billion by the year 2020. As a result, the industry's share of world GDP will rise from 10.5% in 1990 to 11.4% by the end of 2005. Accordingly tourism is increasingly seen as a key driving force for economic development in nations around the world.

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 (Buhalis 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).

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).

To ensure tourism continues to provide benefits in a sustainable manner, the Tourism Strategy focuses on increasing the yield per visitor rather than simply increasing numbers. A yield focused approach requires both a skilled workforce and the background research to develop products and people to meet changing supply and demand requirements.

Information and communication technologies (ICT) are a key element in attempts to enhance the yield of the industry. Some commentators have even suggested that ICT change the very rules of tourism - with industry leaders being forced to adopt 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 NZ 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 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 2003b).

Given tourism's vital role in the New Zealand economy, and the growing evidence that ICT is having a significant impact on labour demand and use in the industry (Conolly and Olsen 2001; ILO 1997) it is vital that we better understand the links between tourism, technology and labour use. There have been relatively few attempts to analyse levels of ICT uptake and use in the New Zealand tourism industry. Understanding of ICT diffusion is especially poor in relation to the STE that dominate the numerical make up of the industry (Ateljevic, Milne, Doorne & Ateljevic, 1999).

This report 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 hotels with multinational organisational structures, through to small owner operated motels and bed and breakfast establishments.

While there are no firm figures on the total number of establishments in the sector the March 2003 Commercial Accommodation Monitor gives a figure of 3147. Total guest nights in short-term commercial accommodation were 3.2 million in February 2004, a 3% increase compared with February 2003 and a 10% increase compared with February 2002. The underlying trend in North Island guest nights for the country has been growing since 1998. The February 2002 Business Demographic Survey gives a FTE workforce of 22,620 for all accommodation businesses registered for GST.

Not surprisingly, in a sector of this size and importance, technology has been seen for some time as a means of improving market visibility, productivity and service levels (see Wolff 2002a,b,c). Some segments of the industry may have been slow to see the initial potential of ICT, but most are now embracing it eagerly (Nodder et al 2003a). Many of the applications are "borrowed" from other sectors that adopted the technology earlier (Baines 1998).

While it has been suggested that the accommodation sector is conservative in its adoption of technology (Namasivayam et al, 2000) recent research in New Zealand has shown that over 95% of accommodation businesses have a computer with e-mail and Internet access and nearly the same number have some form of web presence, though not necessarily e-commerce capability (Statistics NZ, 2001). At the same time the tourism industry as a whole has been identified as the most 'net-ready' sector in New Zealand (Ministry of Economic Development 2001).

Despite the increasing significance of the accommodation sector as a source of employment and its adoption of new technologies, relatively little is known about the impacts that ICT uptake is having on the demand for labour and changing workplace organisation (Milne and Ateljevic 2001; Sigala 2001). This lack of information will have serious impacts on the nation's ability to plan for future labour needs and skills requirements, and to meet the overarching yield and performance improvements that lie at the heart of the nation's tourism strategy.

1.1 Aims and objectives

The research presented here has been funded by the NZ Department of Labour's Future of Work programme. It has been conducted by a team of researchers from the New Zealand Tourism Research Institute (www.tri.org.nz). As with all projects of this type, initial proposals cannot always be funded in full and compromises must be made to fit budgetary and time constraints. With these caveats in mind the core objectives of this research are to:

- Review and synthesize both global and local research dealing with the nexus between accommodation, ICT and labour use. Our aim is to identify key trends and themes that are emerging in the developed world (primarily Europe, North America and Australia) and to contrast these, wherever possible, with existing research in New Zealand.

- 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 form the focus of the research.

- 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 exist between small and large operations and between those operating in rural and urban settings.

- Ascertain current industry perspectives on labour demand/availability and the ability of the existing labour market to meet evolving demand. To review how enterprise size and location may influence these perspectives.

- Provide a clear sense of how ICT adoption is influencing the demand for labour 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 labour out-sourcing.

- Gather information from the industry on how they perceive training requirements and provision, to examine satisfaction with external training programs and the role of internal training approaches.

- 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 adoption and labour demand and use.

The objectives are addressed through the use of a triangulated research approach which involves a mixture of literature reviews, in-depth interviews with small and large enterprises, and the use of a nation-wide survey.

1.2 Report structure

In the next section we review the key themes that emerge from international and existing national research into the adoption of ICT by the accommodation sector and its impact on labour use and demand. While the bulk of studies have emerged from North America and Europe and have been focussed on larger hotels, we also review available literature from New Zealand and Australia and try where possible to draw on research that examined small tourism enterprises in non-urban settings.

In section 3 we provide a brief overview of the current structure of the NZ accommodation industry. We begin by defining the various segments that comprise the accommodation industry and also discuss the rather complex issue of small and medium enterprise definition. We then go on to highlight the continued growth of the sector and its continued importance to regions around the country. An analysis of the current ownership and enterprise size characteristics of the industry is also presented. The types of jobs currently created by the industry are outlined – with particular attention being paid to the mix between full time, seasonal and part-time profiles.

Our methodological approach is outlined in section 4. We focus on the need to 'triangulate' research methods in order to overcome some of the problems associated with an over-dependence on past questionnaire-based research (see Ateljevic and Milne forthcoming). In particular we emphasize the benefits associated with the incorporation of qualitative methodologies into the research process. We also emphasize the value of attempting to look at longitudinal change in the sector and its adoption of ICT rather than relying solely on snap-shots of current change. Three separate methodological approaches are outlined: a review of past interviews conducted with small accommodation enterprises between 1998 and the current day, all of which have had significant ICT adoption and labour use components; six in-depth interviews with large Auckland hotels, and a large scale web-survey of New Zealand accommodation providers. We also highlight some of the weaknesses in the research with a view towards aiding future work in this area.

Section 5 presents the results in a number of thematically focused sections. We begin by analysing businesses perceptions of the evolving competitive and operational environment and then look specifically at labour market issues and the adoption and role of ICT in the New Zealand accommodation sector. Our focus then switches to our core area of focus on the interaction between ICT adoption and the evolving use of labour and organisation of the workplace. We address issues of productivity, reductions and increases in labour force and skills needs, hiring, workplace communication, outsourcing and the key issue of industry training. We conclude with an overview of the industry's perceptions of what they see as the likely future impacts of ICT adoption on labour demand and use.

In each segment of the results section we review findings on the basis of enterprise size and structure. Small and medium sized enterprises are studied first – with some emphasis also placed on the differences and similarities to be found in rural and urban settings. We then outline the issues facing large hotels in the Auckland urban area.

The final section of the body of the report provides us with the opportunity to synthesize our major findings. We also present some tentative ideas that we hope may

provide food for thought for future researchers who decide to embark on studies in this important area.

2 Accommodation, ICT & labour – 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 networks 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 resource 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 Reservations 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).

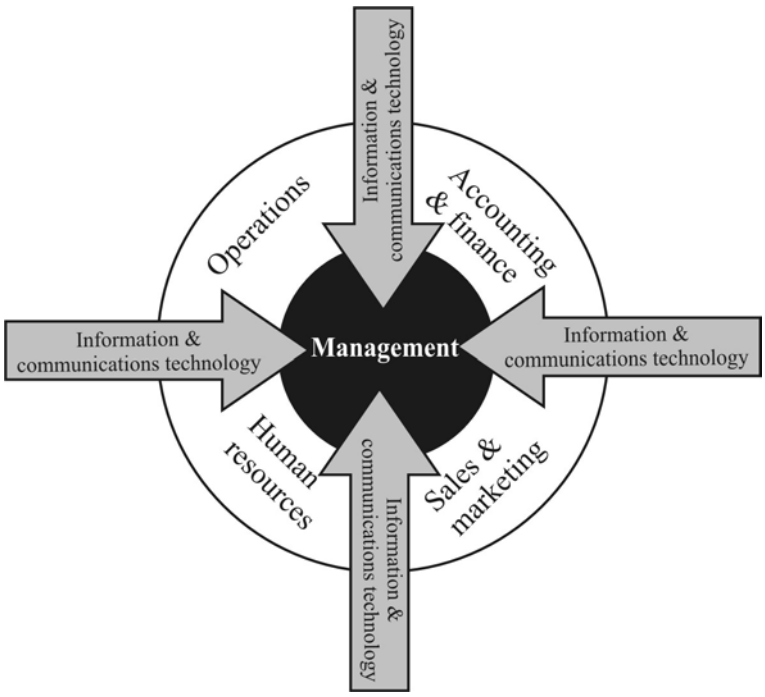
There are a number of ways that information and communications technologies can enhance the performance of an accommodation enterprise and assist in gaining competitive advantage (Baker et al 1999; Baum and Odgers 2001; Buhalis 2001c; Milne and Pohlmann 1998). These include: allowing a quicker response time to market and immediate processing of enquiries; integrating different applications to allow seamless processing with reduced errors; sharing of resources; increasing capacity of workflow and worker productivity; customization and/or standardisation of key product offerings; flexibility and the adaptability needed to keep pace with a 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 enhanced 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). 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, sales and marketing and accounting and finance (Figure 2.1) 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).

Figure 2.1: The integral role of ICT in the accommodation sector



(Connolly and Olsen, 2001, 87)

There are of course other key players that have a role in shaping the broader competitive environment. Government not only sets labour regulations and the broader fiscal context, it also plays a vital role in shaping the use and up take of technology. Increasingly, the exchange of information between consumer and provider takes place in a 'commonspace' (Surman & Wersher-Henry, 2000) that is the Internet. Part of the role of government is ensuring that the infrastructure is available to enable both businesses and consumers to take full advantage of the opportunities offered by ICT (UNDP, 2001).

Atkinson & Welhelm (2002) discuss the important role of government in enabling citizens to take full advantage of the Internet. Public policies have an impact on the ability of citizens to buy online, engage in legally binding transactions, and digitally communicate with business. This will, in turn, significantly enhance the potential for economic growth of regions that have in place sound eCommerce and eBusiness enabling infrastructure. 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 (eg Ministry of Economic Development Project Probe initiative) and in working with industry and business leaders to build capabilities (a key objective 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.

2.1 ICT use in accommodation

The most common technologies used for hotel management purposes are telephones, faxes and desk-top or portable computers. In larger hotels peripherals are usually connected to a central unit. The more advanced Property Management Systems provide seamless connections between different elements of a hotel's operations and create links into external communication networks such as GDS and CRS and even the Internet (Anon., 2002a; Milne and Ateljevic 2001; Brotherton and Turner 2001; Chio and Kimes 2002).

A typical PMS in a larger hotel will cover several core elements of the enterprise's operations:

- Front office functions - reservation, registration, check-out; individual, delegate, walk in and 'house' account folios are all monitored and updated automatically;
- Guest history - tracks guest history status, records special requests, VIP services, handles room preferences with an automatic link to reservations and sales modules;
- Software integration - upon checkout and after the night audit guest information automatically updates the guest history, company history, city ledger, travel agent and other modules;
- Housekeeping - tracks and maintains the physical status of rooms. Energy management systems have also been built in to current day PMS;
- Yield management - provides immediate feedback on average daily rate and is integrated into the front office system;
- Back office accounting - front office revenues update back office revenue journals. Accounts payable is integrated with the general ledger.

The Internet is also playing a growing role in the tourism industry as a sales and marketing force, and lodging is no exception to the trend (Aksu 2002; Piccoli 2001). The need for a web presence that is unique and 'usable' is growing as increasing numbers of consumers turn to the net for travel information and booking (see also O'Connor 2003). Businesses must now consider whether in-house expertise is worth buying, developing or fostering or whether it is best to sub-contract this increasingly important area of the interface between tourism and ICT (Milne and Pohlmann 1998; Milne and Ateljevic 2001).

It is important to note that 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 importance 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., 1996). This 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 (see Milne and Pohlmann 1998).

Recent years have seen a growing number of small operators 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 reasons for the past, and sometimes present, lag in ICT uptake and use by small businesses are many and varied and are inevitably shaped by both internal and external (environmental) factors. A lack of training and capital, limited understanding of the potential of technology, and a lack of clear business strategies have been highlighted in a number of settings (Hull & Milne 2001; Chapman et al 2001; Connolly & Sigala 2001). Some managers of smaller operations complain that it is difficult to find affordable customized software to meet small hotel needs. On the other occasions managers are simply wary of technology (MED 2001; Paraskevas 2002).

This wariness may, in part, be accounted for by the risks involved in IT implementation. Limited capital, the pace of technological change, the lack of suitable software and the inability to afford a specialist person on staff are all important factors. And of course it is very difficult for the owner operator of a small business to find the time and energy to upgrade their skills on a regular basis. Mitev and Marsh (1998) also identify the perceived risk of losing control of the process when using external contractors. Indeed in some cases biggest barrier to the use of the Internet is the risk of competitors gaining unauthorised access to business information.

Many small accommodation operators are also located in peripheral areas. This choice of location has been driven by the availability of appealing tourist resources, the lack of larger competitors and also by the important, but often overlooked, factor of lifestyle choice. While such locations can bring both business related and personal rewards they are often also characterised by fundamental limitations that restrict the uptake and use of ICT (Anckar and Walden, 2001). These restrictions range from a lack of nearby suppliers and face-to-face 'back-up' to more significant issues of telecommunications infrastructure.

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. This in turn may lead to pressure on governments to support improved ICT services and greater uptake at both a national and local level (Ministry of Economic Development, 2002).

Buhalis (2003) argues that the weaknesses of many traditional SMTE often relate to their lack of expertise to strategically deploy ICT to develop competitiveness. Similarly, the cost of new technologies is often seen as prohibitive to many small firms. In this way, SMTE risk the possibility of becoming isolated from the marketplace (Milne & Ateljevic, 2001). Larger tourism enterprises have been able to take greater advantage of ICT as they are usually in a stronger position to combine capital for investment, human resources, management and ICT expertise.

There is emerging evidence, however, that innovative STE can take advantage of their size (Milne and Ateljevic, 2001, MED, 2003). Larger organisations often face structural problems that can affect their responsiveness and flexibility. Tourism products are often packaged and difficult to alter to personal taste. Chain-based tourism firms are usually run by a management team and are answerable to a board of directors. Decisions that affect the strategic direction of the firm, development of new products and consideration of new marketplaces can take a long time to filter through the appropriate channels internally. SMTE on the other hand are usually owned and operated by family members where a decision can sometimes be made quickly over a dinner table thus making them more responsive to consumer demand (Buhalis, 2003 p102). Many SMTE view the Internet as an ideal medium to improve their interactivity with consumers and other stakeholders. To enhance their presence in the electronic marketplace, SMTE can take advantage of their small size and flexibility of operation to afford them immense potential to deliver tailor-made tourism products.

Studies into SME and ICT adoption, (Windrum and de Berranger, 2003) suggest that the small firm's ability to acquire, assimilate and exploit knowledge of new technology is closely linked to the resources of those people working within the organisation. However the degree to which competitive threats can be mitigated and the benefits of small size and flexibility and size can be exploited in terms of ICT use also depends, to some extent, on the effective implementation of government policies (Grant et al 2001; Atkinson & Wilhelm 2002). Part of the role of government is ensuring that the infrastructure is available to enable full advantage to be taken of the opportunities offered by ICT (UNDP, 2001). Additionally, public sector policy addresses areas such as training and network development (Buhalis, 2000). Increasingly also government tourism strategies at scales of resolution from the local to the national are beginning to see an important role for ICT facilitated networking, information dissemination and decision support (Nodder et al 2003b).

There are now numerous examples from around the world of tourism strategies that emphasise the importance of the Internet as a tool to build small business networking capabilities. The Canadian Tourism Exchange (CTX) has been credited as one of the

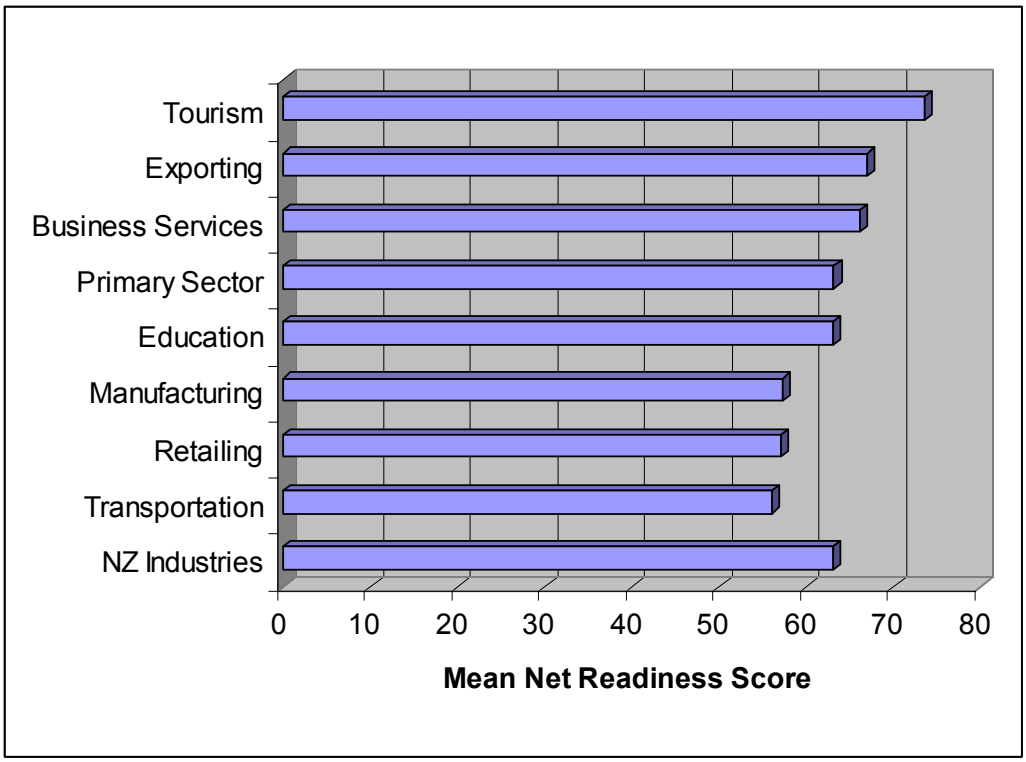
major reasons for the successful growth and expansion of that nation's tourism industry. This Internet based network of tourism operators (many of whom are SME) has provided a forum for tourism providers to establish connections and relationships, exchange ideas and access the latest innovations and market intelligence reports from a number of industry leaders (Gretzel and Fesenmaier 2000.) This "virtual knowledge community" is not just another web page but is based on a variety of technologies such as search engines, databases, email lists, bulletin boards, and profiling. It is this infrastructure that supports the linking and networking of clusters of tourism operators, industry associations, educationalists, community and firms - an infrastructure that is far more than simply technology and connectivity (Nodder et al 2003b).

Such approaches are now being adopted in New Zealand, with local authorities such as Rodney District Council and North Shore City Council recently developing ICT cluster-based strategies for tourism (North Shore City 2003; Nodder et al 2003b). Databases are being developed to record details of tourism operators in the area as well as interested individuals and groups. Websites are being used to facilitate the development an online communities of small businesses including accommodation, this enables improved sharing of local, regional, national and international information about the tourism sector, council policies, plans and programmes. Electronic newsletters are developed that can summarise key statistics and research findings, and also links to other source materials on the web. Online surveys and discussion groups can also be used to highlight industry training needs and to link up industry to training providers so that disjunction between industry labour needs and training provision can be reduced.

While such policies are designed to assist both large and small accommodation operators there is no doubt that larger operators are already able to access data and information from chain members and restricted corporate databases. While it is not yet clear whether such policies will actually assist STE performance it is clear that they provide operators with yet another reason that they must embrace ICT in the work place, and another possibility of losing out competitively if they do not.

The signs are clear that tourism (and accommodation operators) in New Zealand are already embracing ICT at a rapid rate, and are leading the rest of the economy in this respect. For example, tourism was the clear leader of all the industries in a recent study conducted by the Ministry of Economic Development, (2001) into the net readiness of New Zealand Industries (Figure 2.2). This study attempted to evaluate the adaptability, responsiveness to change, and general capabilities for web-based business operations. Tourism was the industry with the highest mean net readiness score (73.6). This contrasts with an overall industry figure of 62, and figures around 55 for key sectors such as manufacturing, retailing and transportation. While the study did not analyse the smallest of tourism operators it still paints a picture of an industry that is ready to take advantage of the potential it sees in ICT-enhanced business activities.

Figure 2.2: Mean net readiness Scores for NZ industry sectors – 2001



(Source: Ministry of Economic Development, 2001)

The move from readiness to full-blown acceptance of ICT is a path that many smaller accommodation operators may not choose to make. Taylor and Murphy (2003) outline a laddered progression in ICT adoption by small business beginning with the simple adoption of email as a tool for internal and external communication, moving in stage 2 to the adoption of a website – which opens a window to a broader global set of opportunities. Stage 3 involves the adoption of e-commerce with ability for ordering and payment on line and increased accessibility and speed. E-business is the next step with improved integration of the supply chain and enhanced linkage into the diverse elements of tourism distribution channels. In the final stage of this model, small businesses become 'transformed' organisations with open systems providing information for customers, suppliers and partners, and new business models based on inter-working between organisations, individuals and related suppliers.

However these authors contend that such a model implies that "all SME have the need and opportunity to follow one prescribed course; with the implication that not to finish the course is some kind of failure." Rather than a laddered progression, the firm may find value in ICT investments as they relate to different activities being introduced at different times to fulfil different needs in line with a strategic vision for their tourism venture and lifestyle choice (Milne and Ateljevic, I. 2001, Ateljevic 2002; Nodder 2003). This moves the focus away from the technology to support a business. Rather it aligns ICT decision-making to the values and lifestyle choice of the business owners.

2.2 The impact of ICT on labour use & demand

Where used effectively, the most commonly used computer applications of word processing, reservations and accounting increase the productivity of employees. However, Buhalis (2003, 31) claims that the real benefit of information technology lies in the linking and reconfiguring of business and organisational functions, resulting in a lowering of operational costs, improved communications with stakeholders and the ability to operate internationally. Customer-centric strategies that actively seek an inward flow of information from consumers of tourism products underpin a strategic use of ICT to change an organisation's boundaries.

The labour market issues associated with ICT introduction are complex. The lodging industry labour force in larger enterprises (and many smaller operations as well) has two broad 'categories': *front-line* workers are involved in direct contact with the consumer (waiters, front office staff), while *background* workers tend to perform 'behind the scenes' tasks (making beds, preparing food, accounting etc). Service quality and performance in background jobs, is largely measured in terms of quantity (how many bedrooms can be tidied during a shift) while quality is largely a matter of meeting externally imposed criteria. On the other hand the performance of a front-line worker embodies both quantity and quality: with behaviour toward customers often viewed as being just as important as the physical labour undertaken in performing the task (Milne and Ateljevic, J. 2001). Skill requirements will likely be determined by the balance between pressures for higher service standards and those for lower prices.

In his classic study of hotel work, Wood (1992, 133-137) points to two common misconceptions about the impact of technology on labour. The first is that technology can play only a limited role in improving labour productivity and reducing costs. The second is that where technology is introduced, it is inevitably associated with processes of deskilling.

In terms of up-skilling, technology can, for example, allow front-line workers to reduce time spent on certain mundane functions, enabling them to focus more on the people-oriented activities that are so critical to service enterprise success (OECD 2002). The introduction of sophisticated yield management systems gives greater responsibility for price bargaining to reservation/front office staff. In effect they become sales managers rather than simply order-takers (Rodger and Vicar 1996). On the other hand, night audits are now done effortlessly by PMS based technology - as a result, many of the functions of the traditional night auditor have been made redundant and jobs have been lost or de-skilled (Milne and Ateljevic 2001).

The industry has plenty of unattractive jobs that will only be partially impacted in the first waves of technology. The hotel industry, in particular, is still marked by a high proportion of female and migrant workers, a relatively young, transient and low-skilled workforce with relatively low pay, high turnover and precarious working conditions. Although technology will remove some of the more arduous, and even dangerous, jobs, it may also result in deskilling of an already low-skilled trade. This may in turn result in even more casualisation and lower pay. The difficulty for the industry clearly arises when these workers are then expected to offer high levels of customer service (Baines 1988; Lashley 1988).

ICT is also playing a role in changing the way in which service quality is monitored (Lee et al 2003). In larger hotels a transparent computer database can register customer preferences and complaints and quantify staff activities so that labour use can be more effectively matched to demand. This, in turn, leads to tighter scheduling of work with employees having fewer lulls between busy periods. New forms of evaluation also lead to new reward structures. For example the French group Novotel recently introduced a competency-based reward system for all levels of staff. The key competencies of employees are evaluated continuously with ICT support. As employees improve, they receive a centrally set percentage increase in pay. This approach replaces annual performance evaluations (Milne and Ateljevic J 2001).

As ICT aids in the breakdown of traditional barriers between different aspects of accommodation operations, so the ability to work in teams, attitude, and personal behaviour become more important (Milne and Ateljevic 2001). Several large chains, including Accor, are highlighting the added social values of staff as part of a major endeavour to improve service levels and worker retention.

It must also be remembered that the introduction of ICT influences management as well as staff. A manager in an ICT rich work environment needs: knowledge of computer systems to select the required equipment and use it effectively; ability to make rapid judgements based on the information provided by systems, and a high degree of person-person skills. Donaghy and McMahon-Beattie (1998) show that the introduction of yield management (with related ICT) can lead to a marked change in the time and importance that managers attach to their job components and roles.

It is also the case that management of chain hotels may have limited control and input into the ICT systems being adopted. Chain standards will be applied to the type of PMS, POS and other technologies that can be introduced. There are also numerous examples of hotels having to adopt a standardised ‘look’, and content for websites so that the overall corporate brand is not splintered. This can affect the ability of hotels to cater to the localized needs of potential clients but also staff. Thus a web-based system to encourage employee feedback and input into management structures may not be effective unless it can incorporate the unique characteristics of a particular location.

The recurring theme in the literature is the need for accommodation businesses to be both high-tech and ‘high touch’. The use of technology to allow differentiation by adjusting levels of service and generating and meeting guest expectations is raised. Though as Lee, Barker and Kandampully (2003) point out, the differentiator is not technology per se but “the creative and innovative use of technology that enhances value”. It is about using technology to expand services. They also note that business concept and business practices must change to allow this and can form substantial barriers to realising the benefits of technology. They raise as a question for future research “How can technology assist service firms to market, attract and nurture a talented workforce?”

The importance of management skills in integrating technology into business practice is another key theme that cuts across the small/large enterprise divide. A number of commentators looking at the impact of ICT (Connolly and Olsen, 2001, Connolly and Sigala, 2001) identify that the skills required of accommodation managers are

changing along with ICT adoption. The skills of providing superior guest service are no longer enough. Managers require financial spreadsheet skills, the ability to innovate leading to the ability to add value thorough the provision of services and increasingly they need to have an understanding of new technologies that are only just emerging in the market place.

The general literature on the relationship between ICT and changes in employment and productivity notes that it is difficult to define and isolate a direct relationship between these variables, and that the impacts depend on the industry structure and the ways ICT is used within the business (Gust & Marquez, 2003, Evangelista & Savona, 2003). This is compounded in the case of accommodation by the difficulty in measuring productivity in general, (Reynolds, 2003). Again the role of management and the culture of the organisation interact with the application of ICT and are driven by it (Gray et al, 2000).

Again there are important differences highlighted in the literature between smaller accommodation enterprises and their larger counterparts. Sigala (2002) in her study of small STEs in the UK shows that employees now do more tasks and have had to change the way they work to take account of the technology being used. The need exists also for staff to have knowledge of new technologies to be multi-skilled and be willing to learn new tasks.

Most studies highlight the need to educate small business owners and their staff in the use of new technologies (Applebee et al., 2000; Nodder 2003). This education for SME should not only include operational skills acquisition by front-line and administrational staff, but should also encourage business owners and operators to review and update their knowledge of strategic business planning, and integrating ICT at the tactical level, not only to support their goals and objectives, but also to shape the objectives and business process (Jameson 2000; Johnston and Loader 2003).

In order to embrace ICT most small tourism operators will want to see a return on investment linked to an increase in productivity, profit and yield (Gretzel and Fesenmaier, 2000). The difficulty of identifying productivity gains from ICT has made its widespread adoption appear paradoxical to economists." Brynjolfsson and Hitt (1998) refer to this productivity paradox and note that reorganisation costs, mismanagement and lags in time before return on investment becomes apparent, can all cause difficulties in encouraging and enabling ICT adoption at the small firm level.

Unfortunately there are relatively few detailed studies of the links between ICT and labour use in small accommodation enterprises. Those that have been carried out are usually based on survey methods and tend to be descriptive rather than providing some underlying rationale and reasoning for the findings that emerge. Recent work by Ateljevic (2002) and Nodder et al (2003) and others has shown however the value in attempting to gain a more detailed understanding of these processes through qualitative approaches.

2.3 Training and recruitment dimensions

The NZ Tourism Strategy focuses explicitly on the need to better manage the evolving demand for labour in the tourism industry. There is a great deal of emphasis placed on the need to restructure the approach and content of tertiary education providers, and to dovetail with broader government initiatives in youth training and small business performance enhancement. In simple terms it is vital to study the links that exist between ICT, labour demand and the accommodation industry's perception of labour training programs/initiatives.

ICT offers a range of opportunities to improve the training and communications environment within a hotel. New interfaces, simulation of real life situations, and access to networked training software all offer management the chance to maximise effective interaction with employees (Buhalis 1999; Teare, 2002).

Reviews of current hospitality education in the tertiary sector note that is largely focussed on the needs of larger organisations. It also notes difficulty in providing technology education due to the lack of similar standards within the industry. The industry around the world is demanding transferable skills with an emphasis on personal skills such as communication and analysis (Daniele and Mistilis1999). Again the ability and willingness to continually learn is mentioned (Enz & Sigauw 2000) several authors are also quick to point out that there appear to be problems with this transfer (Cheung & Law 2000).

Management education levels influence the training provision in organisations particularly in SMEs where the manager has 'risen by doing'. There is a tendency in this environment to look on training as a cost rather than an investment (Jameson 2000; Jameson and Holden 2000).

The tendency of ICT to eliminate routine tasks (e.g. filing; photocopying) allows the amalgamation of positions such as Junior Receptionist and Receptionist. It also allows multi-tasking between departments. This is starting to occur in larger organisations rather than being seen as a regrettable feature of smaller organisations (Baum and Odgers, 2001).

The key point is that in all sizes of organisation on the job training is the most frequently used form of training (Mulcahy, 1999, Jameson and Holden, 2000). There are links between the level of training, quality of supervision and turnover levels, through the impact on organisational commitment (Roehl and Swerdlove, 1999). However even in mid-sized properties (Breiter and Woods, 1997) training budgets are low and inadequate needs analysis means that even this limited amount may not be being used effectively.

However Jameson (2000) points out that while SMEs take an informal approach to training and recruitment, training spending among SMTE is no lower than in their general peer group. Again the SMTEs face the barriers common to SMEs in accessing appropriate affordable training that meets their specific requirements in terms of transferability to their operating environment.

Training opportunities are often limited in rural or peripheral areas and firms (predominantly small) can also suffer from a distinct shortage of experienced or suitable workers. In such areas authors have advocated more flexible training approaches (for example bringing trainers directly to businesses) and the need to embrace distance learning technologies. Such technologies may not, however, be able to provide the kind of hands-on experience which is so often of interest to the industry.

The recruitment of labour can also be influenced for both large and small firms by the availability of web-based job services. Research into this area is still limited but it certainly appears that for larger hotels based in urban areas the web is becoming a force to be reckoned with in terms of recruitment (Anon. 2003a).

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3 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. We begin this section with a short discussion of definitional issues revolving around accommodation type and size, we then address issues related to the sectors overall size, economic value and geographical structure.

3.1 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. Hotel and pub can also refer to taverns without accommodation. Some sporting lodges and upmarket resorts offer exclusive hideaway locations with top-class facilities

- *Motels: includes motor inns, 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 breakfasts, 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, 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.

Another key definitional issue to be addressed for the purposes of the report is the complex one of firm size. The New Zealand Ministry of Economic Development (2003) readily accepts that definitions of SME vary from country to country and from one industry sector to another. They define SME in various ways depending on the particular study or report that has been undertaken. For example, for the purposes of their 2003 report *SMEs in New Zealand: Structure and Dynamics* they refer to SME as those employing fewer than 19 full-time equivalent employees (FTE). They further define small enterprises as "those employing 0-5 FTEs" and medium enterprises as "those employing 6-19 FTEs." On the other hand, Clark et al. (2001) report on the outcomes of a number of projects that included surveys commissioned by the Ministry into eBusiness adoption in New Zealand where the smallest of businesses referred to had between 0-10 FTE.

To employ a benchmark to compare SME performance in New Zealand with that overseas, reference is often made to the statistics of the Organisation for Economic Co-operation and Development (OECD). However, the OECD definition of SME refers to an upper limit of 250 employees (as in the European Union) with the USA defining the upper limit of SME as firms with fewer than 500 employees. At the other end of the scale, small firms are referred to those with fewer than 50 employees, micro-enterprises having between 0 and 10 FTE (OECD, 2001).

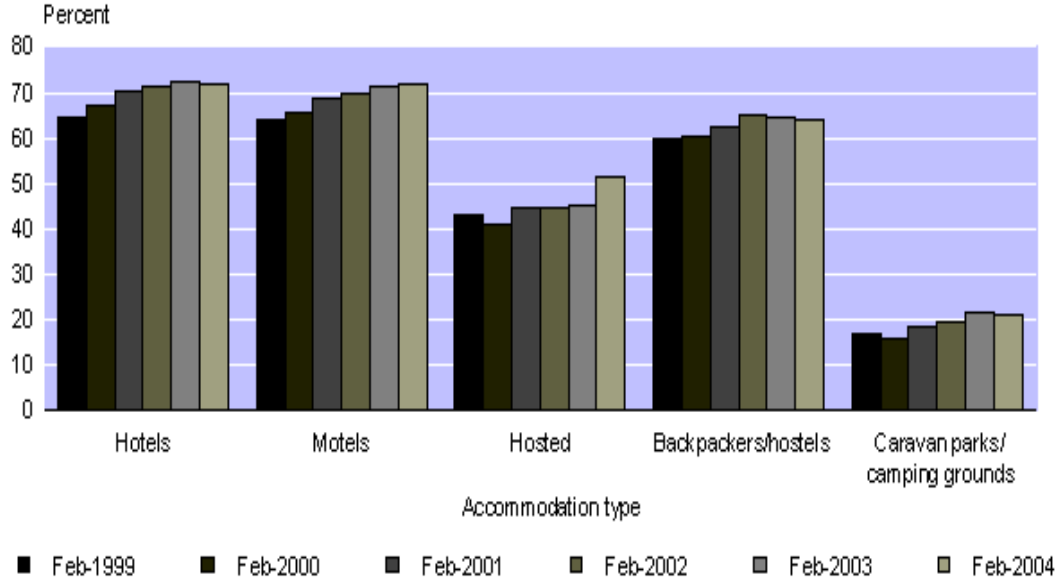
Weiermair, 2001 states that 94% of the accommodation and food sector in the European Union can be classified as small business where numbers of employees are less than nine. Figures from the Australian Bureau of Statistics (2000), estimate that 90% of Australian tourism enterprises have fewer than 20 employees. In New Zealand, the figures reflect a similar situation where between 85-90% of tourism businesses have less than 20 employees (Ateljevic et al., 1999; Ministry of Economic Development, 2002; Wilson 2002).

For the purposes of this paper we will define small and medium tourism enterprises as those employing fewer than 5 FTE and 20 FTE respectively. In the case of the web-based survey discussed in section 4 of this report we felt it best to use room numbers to define small/medium and large as it was too difficult to get people to think of an abstract notion such as FTE. Thus any business with fewer than 30 rooms was considered to be small or medium in size, over 30 rooms was equated with a large enterprise. Such a definition also made it possible for us to circumvent the problem of hotel definitions – with hotels of fewer than thirty rooms included in the small/medium category. We will also use the terms accommodation industry and sector inter-changeably.

3.2 Industry characteristics

The New Zealand accommodation sector continues to grow although periods of international uncertainty and domestic and 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 3.1). 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.

Figure 3.1: Five year 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 a 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.

Table 3.1: Accommodation performance by business type

	Month	
Accommodation type	February 2003	February 2004
Hotels/Resorts		
Number of establishments	579	547
Capacity (stay unit nights) (000)	782	806
Guest nights (000)	944	954
Occupancy rate (percent)	72.1	71.1
Average stay (nights)	1.8	1.7
Motels/Motor Inns/Apartments		
Number of establishments	1,625	1,626
Capacity (stay unit nights) (000)	683	722
Guest nights (000)	995	1,048
Occupancy rate (percent)	71.2	71.7
Average stay (nights)	1.8	1.8
Hosted Accommodation		
Number of establishments	623	512
Capacity (stay unit nights) (000)	88	80
Guest nights (000)	72	75
Occupancy rate (percent)	44.8	50.9
Average stay (nights)	1.8	1.8
Backpackers/Hostels		
Number of establishments	316	341
Capacity (stay unit nights) (000)	503	562
Guest nights (000)	363	403
Occupancy rate (percent)	64.3	63.5
Average stay (nights)	1.9	1.8
Total excl caravan parks/camping grounds		
Number of establishments	3,143	3,028
Capacity (stay unit nights) (000)	2,057	2,170
Guest nights (000)	2,375	2,480
Occupancy rate (percent)	68.7	68.8
Average stay (nights)	1.8	1.8

(Source: Statistics New Zealand, 2004)

The underlying trend in North Island guest nights has been increasing since September 1998. In February 2004, the trend level in North Island guest nights was 2 percent higher than in February 2003 and 6 percent higher than in February 2002. The underlying trend in South Island guest nights has been increasing since August 1997. In February 2004, the trend level in South Island guest nights was 5 percent higher than in February 2003 and 9 percent higher than in February 2002. In February 2004, actual total guest nights in the North Island were up 2 percent, while actual total guest nights in the South Island were up 4 percent, compared with February 2003.

Nine of the 12 regions recorded higher occupancy rates, excluding caravan parks/camping grounds, in February 2004 than in February 2003. The Hawke's Bay/Gisborne and the West Coast regions both recorded the largest growth in

occupancy rate, each up 9 percent. In February 2004, the Southland region recorded the highest occupancy rate (77 percent) excluding caravan parks/camping grounds, followed by Otago (75 percent), and Auckland (74 percent).

Nine of the 12 regions recorded more guest nights in February 2004 than in February 2003. The Canterbury region (up 32,000 or 6 percent) recorded the largest absolute increase in guest nights between the two February months, followed by the Hawke's Bay/Gisborne region (up 21,000 or 17 percent) and the West Coast region (up 18,000 or 13 percent). The Auckland region (down 12,000 or 2 percent) recorded the largest absolute decrease in guest nights in February 2004 compared with February 2003. However, guest nights in the Auckland region in February 2004 were 6 percent higher than in February 2002. It should be remembered that the Americas Cup was in progress during February 2003 and this has skewed figures somewhat. Actual retail sales in the accommodation sector for the month of February 2004 were $221 million as compared with $218 million a year earlier.

The small size of most enterprises in the industry and the regional spread of businesses is revealed in Table 3.2. Of the total of 4054 enterprises listed, nearly 80% employ fewer than 5 FTE staff and fully 95% employ fewer than 20. On the other hand only 0.5% of all the establishments (a total number of 20) have more than 100 employees. The major urban centres are the dominant location for larger enterprises while more peripheral rural regions are heavily dependent on smaller operations.

Table 3.2: Accommodation industry - employment size and region

FTE Size Groups	0 to 5	6 to 9	10 to 19	20 to 49	50 to 99	100+	Total
Tot. NZ	**3189**	**384**	**270**	**137**	**54**	**20**	**4054**
Northland	258	15	16	5	2	0	296
Auckland region	399	44	35	18	15	9	520
Waikato/Hauraki Plains/Thames	149	10	3	3	0	0	165
Hamilton/Sth Waikato region	108	16	18	3	1	0	146
Taupo	88	29	13	6	1	1	138
Bay of Plenty	277	34	20	6	5	2	344
East Cape/Hawkes Bay region	173	29	18	4	0	0	224
Taranaki region	73	12	9	4	1	0	99
Rangitikei/Wanganui/Manawatu region	159	28	10	6	2	0	205
Tararua / Horowhenua region	57	4	3	1	0	0	65
Wellington region	98	13	15	16	2	3	147
Wairarapa region	56	3	4	1	1	0	65
Tasman, Nelson, Marlborough region	321	37	19	7	1	0	385
West Coast	188	16	15	7	0	0	226
Christchurch	169	22	19	19	10	3	242
Canterbury	97	7	7	0	0	0	111
Otago region	234	29	20	13	2	1	299
Queenstown-Lakes	161	22	15	11	9	1	219
Southland	122	13	11	7	2	0	155
Chatham Is.	2	1	0	0	0	0	3

The majority of firms employing more than 100 FTE staff are overseas controlled (see table 3.3). The percentage of firms characterised by a majority overseas equity stake falls as the size of enterprise diminishes, with less than 1% of businesses employing fewer than 5 FTE having this level of overseas ownership.

Table 3.3: Overseas equity by accommodation size - 2003

FTE Size	0 - 5			6 - 19			20 - 99			100+		
OS Equity%	<1	1-49	50>	<1	1-49	50>	< 1	1-49	50>	<1	1-49	50>
Accom	2920	3	25	570	15	15	118	3	27	6	0	18

(Source: Statistics New Zealand, 2003)

The February 2003 Business Demographic Survey gives a FTE workforce of 24,090 for all accommodation businesses large enough to be registered for GST. While there are no firm figures on the total number of establishments the March 2003 Commercial Accommodation Monitor gives a figure of 3147 excluding caravan parks and 3561 in total. The contrast with the figure of over 4,000 provided in Table 3.2 provides a clear indication of the difficulties involved in getting accurate data on the number of establishments actually operating in the sector.

The dependence of the industry on part-time labour is considerably greater than for the general economy (Table 3.4). For the economy as a whole the ratio of full-time to part-time jobs is 2.42:1, for accommodation it is estimated to be 0.88: 1.

Table 3.4 Break down of accommodation employment by full time/part time status and full time equivalent

	Enterprises		Full-time		Part-time		FTE	
Industry	Total	Acc.	Total	Acc.	Total	Acc.	Total	Acc.
Tot. NZ	294954	3715	1266020	15380	522360	17400	1527200	24090

(Source: Statistics New Zealand, 2003)

4 Methodology

Research on small tourism enterprises (STE) continues to be dominated by the quantitative tradition and largely descriptive studies (Milne and Ateljevic 2003; Nodder et al 2003). Questionnaire-based approaches are commonly used to collect information on firm types, births and deaths, entrepreneurial characteristics and enterprise performance.

We argue that an integrated approach to small tourism enterprise research is needed. Integration in this sense means linking or 'triangulating' different methodological approaches to enable us to gain a greater understanding of the complex array of factors that influence the links between accommodation, ICT and labour use.

The research is using a grounded theory building approach. Grounded theory begins with a research situation. Within that situation, the researcher's focus is to understand what is happening there, how the various participants manage their roles, how they impact on each other, the situation and its environment. This is done through observation, conversation and interviews. After each round of data collection the key issues, the critical factors, emerge and are noted.

Throughout the process there is constant comparison with data from different sources. Interview is compared to interview, observation with other observation. Theory emerges quickly and is immediately compared with the data, challenged and refined against that data and against the next. Once a theoretical structure has been established the data is coded and categorised into themes and issues, and then amalgamated to extract the underlying constructs.

Further interviews and observations serve to reinforce or modify the truth and usefulness of the constructs in a dialectical process. As the theory firms up and the constructs become more certain, the researcher adds to the sample by theoretic sampling. This is targeted sampling which increases the diversity of the research population, searching for different constructs or confirmation of the core constructs.

As the core constructs saturate, there are no more new constructs and the research moves to the generalisability stage. In this research, we are using the interviews to uncover the core constructs governing the adoption and workplace/labour-related impacts of ICT up-take in the NZ hospitality industry. Once the constructs are established they are mapped onto Likert and other scales by appropriate question wording. This forms the basis and the justification for the questionnaire.

What most differentiates grounded theory from much other research methods is that it is explicitly exploratory. It does not test a hypothesis previously established. It sets out to find what theory accounts for the research situation as it is. In this respect it is like action research: the aim is to understand the research situation. The aim is to discover the theory implicit in the data.

The insights and information gained from the 6 Auckland hotels will, therefore, be added to the information drawn from our earlier SME interviews to provide the basis for the development of a national web-based survey. The survey is designed to

provide a broader statistical picture of the links between technology uptake and labour market demand in this important sector of the tourism industry.

By 'triangulating' research methods in this way we are then able to gain detailed insights at the local/firm level (interviews), broad based information at the national/regional scales (survey) and a clearer picture of where New Zealand fits alongside global trends outlined earlier in this report.

4.1 Small and medium enterprise interviews

It is particularly important not to ignore smaller owner operated enterprises in rural/urban areas as they have largely been overlooked by past studies of ICT uptake and labour/workplace impacts. Members of the research team are aware of this and have already conducted research that focuses on cross-sectoral, in-depth studies on ICT uptake/impacts in tourism firms that lie both outside and within New Zealand's urban areas.

To date 160 interviews have been conducted with small accommodation providers by NZTRI researchers (Table 4.1). The interviews have been conducted in a range of settings between 1998 and the present day. The work has used generic interview instruments (Appendix 1) developed by the Institute and has been conducted for a range of clients/funding bodies on issues that revolve around STE performance and ICT use. While these projects have not always been explicitly focused on ICT and labour use, these themes have always been an important component of the broader work that has been conducted.

Table 4.1: Small accommodation interviews

Area	Years	No. Estab
Wairarapa	1998-2001	29
Nelson/Golden Bay	1998-2001	25
Marlborough	1998-2001	24
Wellington	1998-2001	22
Methven	1999-2000	10
Ohakune	2001-2002	8
Nth Shore	2003	10
Rodney/Waitakere	2003	4
East Coast	2000-2004	28
Total		160

All interviews were arranged and conducted in a similar fashion – with initial contact being made through mail, with follow up phone calls or visits being made to then arrange an interview time. Interviews typically run for 60-90 minutes and are a designed to get a holistic view of the issues and themes facing small operators (see Appendix 1).

During the past 6 months we have reviewed past and present interview transcripts to gather all relevant information on the following areas: ICT use and adoption; perceptions of the competitive environment; labour use and core issues in the area of training; hiring and skill requirements; future perspectives on the small accommodation sector. Such an approach has enabled us to get a cross section of

small rural and urban accommodation providers, and has enabled us to evaluate how issues and themes have evolved over time for the key areas under study here.

A total of 36 small providers have been interviewed in the urban and peri-urban areas of Wellington and Auckland, the remainder have been drawn from rural areas as diverse as East Cape, Methven, Golden Bay and Ohakune. The non-urban areas included in the study tend to include a high number of small, locally owned accommodation enterprises – with many being characterised by owner operators and family involvement. Tourism development in all of the rural regions has been largely underpinned by a past downturn of traditional economic activities and a shift towards more lucrative activities such as wine, crafts and tourism related services. A lack of accessibility is another common characteristic with major tourism flows traditionally bypassing these regions.

Wellington and Auckland are two of the key urban centres for tourism in the country. Auckland plays a pivotal role as the major gateway to the country for international visitors while Wellington has been enjoying considerable success in domestic tourism with a vibrant arts, heritage and sporting calendar and growing international arrivals.

4.2 Large hotel interviews

Our work in this section of the research revolves around 6 in-depth interviews with the management/owners of a small selection of relatively large Auckland hotels. The interviews were designed to provide detailed information on the uptake and use of new technologies, evolving managerial and organisational practices, and a range of perspectives on evolving labour/skills requirements. We gathered information on management perceptions of training provision and future issues likely to impact upon their own hotel and the industry as a whole.

The Auckland Region was chosen as the site for these interviews for two reasons. The city is New Zealand's major entry point for both people and goods. Auckland International airport welcomes approximately 70% of the visitors to county (Market Economics, 2002). In 2001 the region hosted 1.667 million international visitors and 2.983 million domestic overnight visitors along with 8.857 domestic day visitors (Market Economics, 2002). The second reason was purely logistical – while the original proposal for large hotel interviews had included the resort town of Queenstown cuts to the final research budget did not allow for research visits to the resort area.

Interviews were arranged with an initial approach by letter and a follow-up phone call. The average interview was 60 minutes in duration and all were taped, transcribed and analysed. The response rate to our requests for interviews was 100% and there was considerable interest shown in the topic area, and in receiving the final outcomes and results of the study.

The hotels interviewed represented a mixture of large and slightly smaller operations (Table 4.2). A mix of strata and more traditional hotels was also achieved. The bulk of the enterprises were overseas controlled.

Table 4.2: Large hotel interviews – hotel characteristics

No. of rooms	Staff	Ownership	Bus/Leisure	Structure	Interviewees
193	120 (90 FTE)	Overseas	65/35	Traditional	GM/HRM
410	275-350	Overseas	60/40	Traditional	GM
57/133	73	Overseas	75/25	Strata	GM
352	215 (160 FTE)	Overseas	70/30	Traditional	GM
152	83 25FT/60PT	Overseas	50/50	Strata	GM
54 unit	42 (7 FT)	Local	80/20	Traditional	GM/Own

The interview schedule (Appendix 2) focused on the current conditions and pressures influencing the company and the ICT/labour related responses that are being developed to ensure survival and success. On some occasions two people were present at the interview, but generally the interview was face to face with the general manager. The GM was chosen wherever possible because it was felt they would have the best overview of the hotels current competitive situation and issues relating to ICT adoption/policy and general labour use/needs.

4.3 National accommodation web survey

In surveying the national accommodation industry it was decided that a web-based rather than mail approach would be taken (Appendix 3). An invitation to complete the survey instrument was sent to 1,936 discrete email addresses. Given the wide discrepancies in estimates of total enterprises operating in the sector we are not able to estimate exactly what percentage of the total number of businesses this covered but we estimate that it represents approximately 65-70% of all eligible businesses.

The reasons for adopting a web based approach were:

- It is cost effective. Given budgetary constraints a mail survey to this sample of the industry would have been impossible to conduct.

- All data added to the online form by participants is automatically entered into a data-base – saving considerable data entry costs/time. This meant that the turn around from commencement of the research to final data analysis was approximately 1 month. This was vital given the tight time frame under which the study was being conducted.

- The usable response of 468 (24%) is far higher than would have been achieved in a similar mail survey – where past experience indicates responses in the 10% range or even lower. To enhance response levels we also included a $200 incentive – to be drawn randomly and provided to one of the respondents.

Initial plans to supplement the web-survey in four focus regions (Auckland, Queenstown, Nelson and East Cape) with phone call follow-ups and where necessary a mail survey, were shelved because of cuts in the final budget allocation. In future

research of this type follow ups of this type would probably increase the overall sample size.

The disadvantages of adopting a web-based approach clearly lie in the fact that those responding must already use an Internet ready computer in their business. However, given the already high level of access/use of the Internet/email in the accommodation sector identified by previous researchers (eg MED 2001; Statistics NZ 2002) we felt that only a very limited number of firms would be excluded from the survey and that some of these, most notably in rural areas like East Cape, would be captured in our small firm interviews.

The survey and relational data base were designed to ensure confidentiality and to make the process of completing the questions as easy as possible. The web-survey opened with background information on the project and standard ethics review disclaimers. The survey respondent was then asked to click a box according to whether their property was smaller or larger than 30 rooms – each option led the respondent to a different questionnaire with some standard questions and others that reflected differing characteristics associated with small/medium and larger operations.

The break down of small/medium respondents shows a good cross-section of accommodation types, with motel, bed and breakfast and home-stay operations dominating (Table 4.3). Rural operations accounted for 55% of replies with urban settings (including urban resorts like Queenstown and Rotorua) accounting for approximately 45%.

Table 4.3: Accommodation survey – small enterprise types

	Number	Percent
B&B	128	29
Backpackers	10	2
Boutique	28	6
Farm stay	14	3
Holiday park	7	2
Home stay	34	8
Hotel	16	4
Motel	172	39
Motor Lodge	13	3
Other	24	5
Total	446	100

There is a large and distinct difference between the length of stay at rural providers (1.82 days) and urban providers (2.49 days). Time spent in the industry by owners is just over 9 years, on average, for rural operators and approximately 7 for their urban counterparts. Rural operators also tend to have been working in their current operation for a longer period of time (5.8 years) compared to urban operators (4.5 years). Other distinct differences emerge in the reliance on overseas guests – with this market accounting for nearly 62% of rural operator clients, but only 50% of those operating in urban environments.

The mean employment size of the small operations surveyed varied between high and low season (Table 4.4). In the high season the average firm had 2.5 full time workers

and 3.8 part-time (including owners/family members). If employees alone are factored into the analysis these figures drop to 1.6 and 3.4 respectively. There is a significant reduction in employment during low season periods. Female employment dominates this sector – especially in high and low-season part-time work.

Table 4.4: Mean employment in surveyed small accommodation providers

Employment	Full time low	Full time high	Part time low	Part time high
All workers (incl family)	2.27	2.57	3.08	3.85
Female workers	1.6	1.84	2.84	3.38
Employees only	1.3	1.61	2.78	3.42

The large hotel survey generated a total of 22 usable responses. The hotels responding ranged in size from 30-49 rooms to over 300 rooms, with the bulk falling between 50 and 150 (Table 4.5).

Table 4.5: Number of rooms per hotel surveyed (N=20)

Number of rooms	Percentage
30-49	5
50-99	30
100-149	45
150-199	10
200-249	0
250-299	5
300-349	5

There was also a spread of property quality types – with the bulk of enterprises classifying themselves as 3-4 star, there are a smaller number of 5 star and boutique properties (Table 4.6) The range of fulltime employment in the hotels was 7 – 120, with part-time employment ranging from 20 – 150.

Table 4.6: Accommodation quality grade for hotels surveyed (N=22)

Grading	3 star	4 star	5 star	Boutique	n/a
Percentage	45%	27%	18%	5%	5%

In summary we feel the web-survey provides a good national sample from which to draw key information on the relationships between ICT adoption and labour use and needs. It also provides a very useful comparative tool when reviewing the findings of our in-depth interviews.

5 Research findings

The following discussion outlines the key findings from the in-depth interviews and the national web-survey. Each thematic section is reviewed from the perspective of the small/medium size participants first; the large hotel perspective is then presented. We triangulate our findings so the reader will find a complimentary mix of qualitative research and related quotations presented alongside supporting quantitative findings.

5.1 The competitive context and labour market

Small and medium enterprises

Many of the general competitive issues raised in the interviews revolved around relationship with government. As one rural operator in East Cape stated:

> The government needs to start looking after small business. We are paying huge ACC levies, huge taxes and now face the new laws on staff, OSH issues and so on. This is not favouring employees because businesses are cutting back.

The survey results supported these findings, with 44% of small operators saying they absolutely felt that they were over regulated, and a further 14% feeling somewhat over-regulated. Less than 20% stated that the regulatory environment was not an issue that concerned them (Table 5.1)

Table 5.1: I think employers are over regulated

	Absolutely	Agree	Neutral	Not greatly	Not at all
I think employers are over regulated	44	14	24	7	11

The influence of local government generally received mixed reviews. While several operators believed that local authorities and regional/local tourism organisations had an important role to play in the tourism industry most felt that they could be doing their job better, especially in the area of disseminating useful information and assisting in reaching the market place.

A key factor that emerges from the in-depth interviews is that two distinct types of accommodation operations can be identified on the basis of why people have entered the business: lifestyle and livelihood.

Lifestyle is an extremely important reason why many people enter the business.

> The prime reason we are here in business is for the lifestyle. We didn't come here to make money. I don't think anyone is coming here to make money. The only way you can support yourself is to make enough so as to get by over winter.

> Ultimately it would be nice to work just one month of the year. At the moment we work 6 months--it is better to have a short intense time to make money over-after all it is the lifestyle that we are here for!

The second group of participants were very eager to streamline processes, explore new markets and collaborate with complementary tourism businesses. They were not interested in creating sufficient wealth just to cover current lifestyle choice but were eager to explore all opportunities. They viewed an Internet presence as vital and saw ICT as essential tools to build and transform business relationships. They were strategists who "worked on the business, not in it". Collaboration was viewed as necessary, not just to survive but in order to thrive. They displayed a sincere desire to make a contribution to community. Not only by creating employment for those who lived locally, but also to work with and mentor other business owners (see also Nodder 2003).

Both sets of interviewees highlighted the area of labour as a key issue facing small operators. In rural areas workers are often sought from outside the area due to shortages. Many operators tend to use themselves or immediate family as a labour resource.

> The lack of transport and accommodation make it difficult to bring on workers, especially younger employers who have a hard time living out in Golden Bay.

When asked in the survey 'what are the key employment issues impacting your business?' three areas of concern emerged from the analysis of the long answers. These can be broadly categorised as regulation & compliance, industry factors, and recruitment & staffing.

Over seventy respondents provided long answer comments on the issue of regulatory issues relating to labour (Table 5.2). The bulk of these tended to focus on the relatively recent Holiday's Act with several operators stating that they may have to close for periods as a result and that this placed considerable pressure on their business. For some it was the broader issue of paper work and overall compliance costs that caused the most pressure in their day to day activities. ACC and employment contracts were also highlighted by a small percentage as being the major culprits in this regard.

Table 5.2: What are the key employment issues impacting on your business?

Regulatory Issues	%
Holidays Act	51%
Paperwork & Compliance	38%
Contracts & ACC	11%

The survey generated a total of 159 long answer responses in the area of industry structure and its impact on labour use and acquisition in the industry. Seasonality was seen as the major problem facing businesses – making it difficult to maintain good staff and leading to some degree of turnover. For rural businesses issues of local transport infrastructure and worker accommodation were also raised as an issue that

created difficulties in accessing and keeping labour (Table 5.3). Low levels of profitability in the industry were also raised by some as a factor that made it difficult to pay sufficient wages to attract staff in a tight labour market – this appeared to be of equal concern in urban and rural areas.

Table 5.3: What are the key employment issues impacting on your business (N=159)

Industry Issues	%
Seasonality and hours	51%
Infrastructure and location	18%
Staff housing	13%
Profit and efficiency	13%

Over 80 long answer responses focused directly on themes of staff acquisition and turnover. The simple issue of acquiring and then keeping staff was raised in nearly half of the comments made in this area. Specific issues involved in accessing cleaners and housekeepers were raised in a number of cases as were more general problems relating to the poor skills and attitudes of staff. As one urban operator noted:

> Where have all the good experienced workers gone? I am constantly having to turn to students. They're good for a while but always move on to new things just as I get them where I want them to be in terms of skills and work ethic…

Table 5.4: What are the key employment issues impacting on your business? (N=81)

Staffing Issues	%
Getting/Keeping Staff	48%
Getting Cleaners/Housekeepers	24%
Skills and Attitude of Staff	27%

Large hotels

Large hotel managers interviewed raised a number of issues that they felt were shaping the broader operational context within which ICT and labour related issues have to be viewed. A key theme raised was profitability and the general lack of investment and poor rates of return on investment in Auckland. Several respondents felt that Auckland hotels were not charging sufficient prices to keep properties properly staffed and maintained. Comparisons were often made with the types of prices (higher) being charged at similar properties overseas. As one respondent noted:

> In New Zealand hospitality ventures undervalue their product by a long shot. The average rate for a premium hotel room in Auckland is $140 which is farcical against any international city.

The whole investment structure in Auckland has been skewed by the development of strata title properties (hotels where units/apartments are owned by individuals and either kept as hotel rooms or rented out for residential purposes). Once these operations are out of their guarantee period owners tend to sell out of the hotel pool. The more attractive the property is as a residential option the bigger the problem

becomes. The majority of hotel developments in the last 5 years have been on the strata title model. Strata title managers have to return money to their stakeholders on a month-by-month basis. As people start selling out and the hotel shrinks it becomes harder to meeting this financial imperative. Strata properties tend to make high use of sub-contracted or out-sourced labour in order to cope with the removal of units from hotel to residential stock

Both the interviews and the survey highlighted a number of issues related to the overall labour market situation. Perhaps the biggest issue raised lay in the area of problems faced in finding qualified staff. Some of those interviewed in the Auckland region pointed to the fact that low levels of re-investment and low room rates are making it difficult to attract and keep good staff, which in turn led to a noticeable reduction in service levels.

The shallow labour pool was also noted as the major pressure currently facing the hotel business. While hotels may turn to recent immigrants or student populations these groups were often seen to bring problems of their own. Student groups were sometimes seen to be unreliable and prone to high levels of turnover, while some managers felt that hiring too many recent immigrants changed the complexion of the front end staff too much - “making us look more like an Asian than a New Zealand operation”.

Several of those interviewed stressed that turnover varied by level of job. At the senior management level things were relatively stable. At supervisory level the turnover was modest and was acceptable from a business perspective. However at the lower levels (front-line workers) turnover was often considered to be unacceptably high. This was a point of concern as “this is where it customer interaction happens” and service is delivered. As one manager joked, with a hint of desperation: “we’re having trouble getting people that can talk and walk at the same time”.

Average turnover for line staff jobs in food and beverage and house-keeping was usually in the vicinity of 35-40%. According to one interviewee half the turnover occurs in the first 6 months after hiring for a variety of reasons including a mismatch between perception and reality. This was seen as being particularly the case for people who came from private training providers and who often “expected to walk straight into a supervisory position”.

Entry-level wage rates start around $12/hour and to move up the ranks you are talking about a career path spanning many years. Several managers felt that young people did not have the commitment and tenacity to work 5 or 6 years to get to a junior managers position especially when even this pays only $35,000 – 40, 000.

Recent changes in employment laws also received considerable attention. As one manager noted “…the public holiday law amounts to paying all employees for another 5 days. Alongside heftier union involvement and 4 weeks annual leave this costs our business and is going to cause grief.”

The survey results tended to back up these comments with the long answer sections generating a number of comments in the recruitment and retention area. Nearly 50% of those responding mentioned a general shortage of skilled employees and a struggle

to get trained and experienced staff. Even students coming out of tertiary education were sometimes felt to lack the basic skills needed to meet industry requirements.

Many of these themes are reinforced by the quantitative analysis of the survey data. The bulk of hotels (60%) said that fewer than 10% of their part-time staff had any hospitality qualifications, with 64% stating that they had fewer than one quarter of their staff with hospitality qualifications. (Table 5.5)

Table 5.5: Percentage of full time and part time staff with hospitality qualification

Percentage of staff	1-10%	11-25%	26-50%	51-75%	76-100%
% hotels full time staff	29	36	29	7	0
% hotels part time staff	60	0	10	20	10

Hotels surveyed were also characterised by very high levels of both full and part-time staffing in the under 25 age range (Table 5.6). Thirty one percent of hotels stated that 50% of more of their full time work force was aged under 25 years, with 47% reporting the same figure for their part-time work force.

Table 5.6: Percentage of full time and part time staff under 25

staff under 25	1-10%	11-25%	26-50%	51-75%	76-100%
% hotels full time	25	6	38	25	6
% hotels part time	0	7	47	27	20

5.2 The role of ICT

Small and medium enterprises

Interviews conducted with small accommodation providers in the late 1990s and 2000/01 reveal a number of characteristics that have shown some signs of changing in more recent years. While the use of technology among those interviewed was always high (usually above 90% of those interviewed) much more limited numbers had standalone websites and very few were able to take bookings and handle payments on-line (less than 10-20% for the latter).

Small business owners were often intimidated by the 'hidden costs' of ICT adoption, such as personal training and upgrading software. They were also wary of time commitments and the problems of relying on external expertise. Even if resources were provided, relatively few SMTE made use of the true potential of the Internet.

At the same time a number of business operators reflected the findings of the Ministry of Economic Development (2001) in that they were quite confident in their abilities to use technologies – however our work shows that this confidence (especially among

male respondents) did not always translate into actual use of the potential benefits that ICT has to offer.

More recent interviews have shown a major increase in web presence, either in stand alone sites or through third party sites such as Jasons or other accommodation directories. E-mail use is very common and has grown to almost saturation point in recent years. The use of computerised systems for customer tracking still remains at a rather nascent stage but has shown signs of expansion. In many cases businesses continue to rely on their own memory. As on small provider in the East Cape noted:

> The personal touch is still important, I can see how a computer can help with remembering client details but at this point I still prefer to rely on my memory. I guess if I had other staff working here I would make more use of these types of systems so that we wouldn't run the risk of not knowing when to greet someone as a regular.

Our interviews have revealed a steady shift over time, in both rural and urban areas, in the number of bookings that are either initiated or completed through the Internet. While word of mouth, walk-in business, brochures and the telephone continue to play a vital role the presence of the Internet is increasingly being felt.

The increasing move to the web is, on occasions, also a reflection of the family nature of many small businesses. As one operator in Golden bay noted:

> Our children have started playing a more active role in recent years, they're the ones who nagged us to get onto the Internet. Our son built our site and updates it when he's not too busy with his studies at uni.

Those who have chosen to go into the accommodation business for primarily lifestyle reasons tend to be less likely to adopt ICT on an intensive scale. While these people were keen to see their businesses develop, the income generated from their tourism business serves to protect a way of life that they do not want to see eroded by high levels of work and a lack of 'control' over free time. They were not interested in running to full capacity all year nor are they often engaged in strategic business planning. Their use of ICT tends to be restricted mostly to email, an Excel spreadsheet to register GST and accounting information, and basic word processing functions. For these 'lifestylers' websites are viewed as a great replacement for an expensive brochure but they prefer not to seek expert assistance to develop their Internet presence often perceiving either themselves or other family members, to be "net savvy" enough to cater for their own needs.

As one bed and breakfast operator in a peri-urban area noted:

> Yes we have a got our 'bits and pieces' on a few websites (Regional Tourism Office, Jasons, AA) but we have decided not to do anymore than this – we don't want to be inundated with visitors, we came here for a simple stress-free lifestyle and we don't want to see this change, the Internet is instant and people are waiting for an instant reply – we don't want that type of pressure.

For those individuals that are in the business for primarily livelihood reasons the adoption and use of ICT tends to take on a more significant role. Most of those that fit within this category expressed a desire to raise their awareness of ICT developments. They see the technology not just as an important marketing and sales tool but also as a mechanism to build business relationships and gather vital information to assist decision making. These operators, rural and more often urban, are using ICT as a strategic tool to build revenue and enhance performance.

As one rural respondent stated:

> I am not going to get to my sixties and expect to be provided for by the government – I see the Internet as my saviour – it brings so many high paying visitors to my doorstep and it costs so little.

Where our research differs from a number of other investigations into SME and ICT adoption (Chapman et al., 2000; Windrum and de Berranger, 2003) is that the owner's level of technical capability and previous experience with ICT do not appear to major contributing factors to levels of ICT uptake. Lifestyle factors and an owners' understanding of the business processes that the technology can support appear to be more important.

While small accommodation firm uptake of ICT is clearly shaped by the individuals that operate and manage them, we also need to understand the influence of the broader competitive and policy environment within which firms are 'embedded'. The flow of tourism operators into the countryside from urban areas can, for example, bring technological skills into a region, as can the return of technologically aware locals. Sometimes these people are transformed into 'champions' that facilitate the development of local websites and raise levels of ICT acumen (see Nodder 2003).

There are of course, also examples of newcomers who have failed in their attempts to enhance local technology uptake. The reasons for this vary but a major factor is the lack of relationships that these newcomers have built in their new surroundings. Until relationships of trust and reciprocity have been built, the good ideas of newcomers are often seen as a threat rather than a way to generate more business.

There appears also to be some correlation between government driven technology policy and the willingness to adopt ICT in the small accommodation sector. Several rural interviews reflected concerns over the speed of access to networks similar to the following comment from an East Cape operator:

> It's so slow at the moment to get onto the Internet and email, they say the high speed connections will be coming soon, I can't wait 'coz then I can really start to make things happen with email and our website.

The role of local government policy does not appear to play a major role at the moment in influencing ICT uptake, although it was noticeable, particularly in urban areas, that some operators felt that if local government put more information onto tourism related websites, and offered more reason to use the web for these purposes, they would do so.

The availability of expert eBusiness resources (BIZInfo, Trade New Zealand) or tourism industry associations also appear to have had limited influence on small tourism owners. Indeed, these organisations/resources were often perceived as being ineffective and not relevant. Those interviewed repeatedly expressed a desire to have a co-ordinated approach to tourism development where the role of government was seen as advisory rather than regulatory. They voiced a wish to have the support of a sound base of knowledge and easy access to tourism information. They often felt thwarted by local government in their innovations, not encouraged.

Our survey findings on ICT use in the small accommodation sector appear to mirror the general trends that emerge from the interviews conducted over the past 6 or 7 years. ICT use appears to be growing and not just in areas such as Internet and email, but also in basic day to day operations.

Over two thirds of the businesses surveyed have a computerised general accounting system, over a half have a computerised reservations system of some kind and nearly 50% have an ICT based telephone call charging system (Table 5.7). Some of the larger operators also have computerised property management and payroll systems.

Table 5.7: Does your business have a computerised…

Technology	Yes %
Reservations system	52
Property management system	19
Payroll	26
General accounting system	66
Conference software	3
Telephone call charging	49
Restaurant systems	4
Automated answering system	27
Purchasing module	3
Database marketing system	17
Housekeeping module	22
Publishing system	36

There is some variation in the use of this operations technology depending on the rural/urban location of the business (Table 5.8). Urban operations make distinctly more use of ICT in the property management, reservations and telephone call charging areas than do their rural counterparts. Areas such as payroll and general accounting are also more likely to be computerised in urban settings than in rural ones.

Table 5.8: Rural & urban variations in technology use

Technology	Yes % Rural	Yes % Urban
Reservations system	43	64
Property Management System	14	25
Payroll	23	30
General Accounting System	64	71
Conference Software	2	4
Telephone call charging	38	65
Restaurant systems	6	1
Automated Answering system	26	26
Purchasing Module	3	3
Database marketing system	15	19
Housekeeping Module	16	31
Publishing System	37	35

Email use is at saturation point in both urban and rural setting, though as mentioned in the methods section this is could also be a reflection of the survey methods used (Table 5.9). Nevertheless, there seems to be little doubt that most accommodation operators are now relying on this cost-effective form of communication. Most of the businesses responding to the survey also have a presence on a shared web-page or portal (e.g. Jasons, AA) and there is not significant variation between rural and urban settings on this front. Bookings are also available over the web for most businesses – though this does not equate to full e-commerce as many still rely on email based messages to be relayed through from the site. Standalone web-pages are also growing in number with over 80% of both urban and rural operations stating that they now have some form of individual website. Some idea of the growing sophistication of use is indicated by the fact that 51% of those surveyed said they actively tracked the financial contribution made by their web presence.

Table 5.9: Use of the Internet and e-commerce in rural and urban settings

	Total	Rural	Urban
Technology	Yes %	Yes %	Yes %
Standalone Webpage	82	80	85
email	99	99	99
Can guests book over Internet	97	96	98
A shared webpage	97	97	96

Management also perceives their operations as being extremely dependent on ICT with only 26% stating that they are not in agreement with this statement (Table 5.10). Under one third of those surveyed stated that computers/ICT are either always or

sometimes more trouble than they are worth and over 75% felt that computing was never or seldom a constant problem.

Table 5.10: General perceptions of ICT

	Absolutely	Agree	Sometimes	Seldom	Not at all	N=
We are totally dependent on computer systems today	22	15	22	15	26	385
Computers can be more trouble than they are worth	9	7	14	17	53	388
	Absolutely	Agree	Sometimes	Seldom	Not at all	N=
Computing is a constant problem for us	3	6	14	17	60	385
	Confident	Happy	OK	Nervous	Anxious	N=
Your confidence about using systems supplied to you	28	28	25	12	7	374
	Absolutely	Agree	Sometimes	Seldom	Not at all	N=
The data in our systems is well integrated	11	13	32	15	29	318
	Important	Useful	Neutral	Insignificant	Irrelevant	N=
Importance of web to financial performance	53	21	15	6	5	389
	Always	Usually	Sometimes	Seldom	Never	N=
Customers expect assistance with computing	4	17	25	27	27	349

A further indication of the a relatively high degree of comfort felt with ICT comes from responses to the question relating to the degree of comfort felt with the ICT systems in use – only 19% of respondents said they felt somewhat nervous or anxious. However most operators felt the information in their systems could be better integrated.

A clear majority of hotel managers also feel that their website is now vital to their financial performance. However it is clear that the role of in-room technology provision has not become a major issue, with only a relatively small percentage of those surveyed stating that guests will require some sort of assistance with their personal computing needs.

Large hotels

The following series of quotes drawn from our long interviews provide a good insight into the vital role that ICT plays in the large hotel sector in Auckland city:

> They (ICT) are so integrated in what we do that if you don't have it then it all (the business) comes crashing down.
>
> IT is the backbone and conduit to the hotel, there is no option if you don't have it you are not going to survive.
>
> In the outside world technology is changing very quickly and it is tough for management to keep pace.

All hotels interviewed in Auckland had property management, payroll, accounts and point of sales systems. Those involved in the conference market also used software in this area. The PMS and POS were regarded as particularly vital. As on manager mentioned "we would struggle to keep the hotel operating without them, we have manual systems running in parallel and manual back ups but to rely on these would be exceedingly difficult".

Visitor demands for in-room technology are growing. Some of the hotels interviewed were installing (or had installed) CAT-5 cable solutions to deliver Internet and data services as dial up provisions no longer met guest requirements. Increasingly though, such technology is out-dated, and many hotels are moving towards wireless solutions. It was also stressed on numerous occasions that customers wanted simplicity of user interface and speed of response. Managers also saw usage charges for such services changing from the present 'user pay' model to a free service or a minimal charge like a phone call. In some cases hotels were also receiving requests for sophisticated video links although in some cases the cost of the hardware was thought to outweigh the benefits of capturing this business.

The survey results again supported the general findings emerging from the in-depth interviews. Table 5.11 shows that the bulk of hotels are offering guests EftPos facilities and an increasing number are providing Broadband and movies on demand. WiFi is some way behind but its popularity is growing

Table 5.11: Do you offer your guests…

Technology	Offered
EftPos	100%
Broadband	47%
WiFi	15%
Movies on demand	35%

All hotels reported that a lot more bookings were coming via the Internet either from their own websites or in electronic form from other distribution channels. On the business travel side it was not uncommon to find hotels with 80% of their business travel related bookings coming off the website and 90% of quotes going out by e-mail. Approximately a quarter of leisure business appears to be coming via the Internet. Many of the PMS in place do have the option to allow direct transfer of the data from the web, but as yet several of the hotels were not ready for this and continue to rely on manual entry. E-purchasing systems are also becoming more commonplace and email was standard.

The biggest problems associated with new technology were virus and security threats and the resultant costs involved in maintaining firewalls and related software. Few hotels also felt they were using the "full capacity" of the technology, instead most were "using as much as required to meet our short-term business needs". Several managers stated that they, and their colleagues, simply did not have the time to be aware of every innovation and "that there may be technologies out there we should be using". In the case of chain operations there was normally the feeling that 'techies' at head office would keep an eye on these things.

The survey results show that the large hotel sector in New Zealand makes a great deal of use of ICT in terms of everyday operations (Table 5.12). Telephone call charging, general accounting systems, reservations systems and property management systems are all common place.

Table 5.12: Does your hotel have a computerised…? (N=22)

Technology	Yes %
Reservations system	94%
Property Management System	82%
Payroll	94%
General Accounting System	94%
Conference software	18%
Telephone call charging	100%
Restaurant systems	77%
Automated answering system	53%
Purchasing module	41%
Database marketing system	65%
Housekeeping module	59%
Publishing system	35%

Management also perceives their operations as being extremely dependent on ICT with only 6% stating that they are not in agreement with the statement. Few managers feel that computing and ICT related matters are a constant problem or that ICT/computers are more trouble than they are worth. There is clearly a feeling though, that more work needs to be done in integrating the range of data in hotel systems.

Table 5.13: General perceptions of ICT

Percentage	Absolutely	Agree	Sometimes	Seldom	Never
Computing is a constant problem for us	12	24	18	24	24
We are totally dependant on computers	47	47	0	0	6
Computers are more trouble than they are worth	6	12	53	6	24
The data in our systems is well integrated	0	47	18	18	18
	Always	Usually	Sometimes	Seldom	
Guests expect assistance with their personal computing	17	39	33	11	
	Important	Useful	Neutral	Insignificant	
The importance of the website to financial performance	47	24	18	12	

A clear majority of hotel managers also feel that their website is vital to their financial performance. Most managers also report that guests will at least sometimes require some sort of assistance with their personal computing needs.

The degree of autonomy available to large hotel managers in terms of ICT decision making varies considerably among the group of enterprises included in the interviews. Multi-national hotels tend to set minimum standards and guidelines with some managers having a great deal of freedom to choose systems beyond this, and others having virtually no leeway. Hotel chains also set controls for web site design and content as these are seen to be an essential part of group branding.

Most groups have standardised PMS to allow for centralised databases, similarly the accounting systems are standardised to allow easy consolidation of data. The move is to have everything the same for the purposes of comparison and sharing information between properties. This also eases the ability to move staff between properties when necessary.

5.3 ICT Impact on labour use and needs

The impact of technology on the labour use and needs in the accommodation sector is felt in two key areas – the reduction in labour costs due to improved productivity ,and the ability of ICT to enhance the level and quality of service provided by labour. It is clear from our research that the impact of ICT on these areas is felt quite differently by small and large operations.

Small and medium enterprises

Our interviews with small and medium sized operators rarely highlighted labour loss due to the introduction of ICT. Productivity and efficiency improvements were often noted but could not often be tied to specific changes in employment. The most common feedback can be summarised in the following quotes:

> It took me a while to get my head around it but now that I've got the accounting package working properly it definitely saves me money – I don't have to get the accountant to do as much preparatory work for me and my GST returns are much simpler.
>
> Now that we have a website of our own and I am able to do most things with a little help from our daughter I don't have to worry about paying some developer in the city to update things.
>
> Email has definitely cut down on the time I used to spend preparing written quotes and mailing them off, it has also really cut back down on telephone costs.

It can therefore be argued that the major labour-related effect is on the outsourcing of certain business services. At the same time, however, the development and use of technologies can generate increased use of certain outsourced activities – in particular the servicing of hardware and the provision of expert software/web development services.

Perhaps more importantly the biggest impact of ICT for many operators is that it frees up more of their time from sometimes mundane tasks. This enables them to focus on more on the customer, or for many, on the things that bring pleasure and enjoyment and support their lifestyle choices.

There is no doubt that technology does give operators a chance to improve the quality of service they offer. As in all other service industries, the aim is to ensure customers are satisfied enough to return to the same establishment. For larger operations technology offers the opportunity to log the relationship with the client – to record particular guest's preferences and to respond to such preferences on subsequent bookings. While this may be easy for a small family operated business it can be very valuable for operations that have a range of staff or a relatively high turn-over of part-time and seasonal staff. ICT can enable a consistency and level of service that can be difficult to achieve otherwise. As one urban respondent noted:

> In our industry, small acts of service can be very important. Remembering someone's choice of newspaper shows that you 'care' – customers like this type of stuff.

There is no doubt that the increased up take of technology also requires staff to learn new skills. In smaller operations this means that owners and managers need to add to an already wide array of tasks ranging in some cases from cooking through to cleaning, simple maintenance and interpersonal relationships. As one respondent notes:

> When I first realised I couldn't keep ignoring computers and the web I was worried. I thought how am I going to find the time to learn these things and also do all the other stuff around here? But I got some help from my sister who works in computers and now I couldn't do without email and our accounting system.

In simple terms jobs at the 'front end' of the small accommodation sector are becoming higher skilled and in some case more challenging. Many older owners simply leave these tasks to younger workers or family members who have basic computer skills and otherwise learn the bare minimum required themselves, others embrace technology.

The impact on 'behind the scenes' work is, however, relatively insignificant. Apart from back-office functions, like accounting, the influence of ICT is not felt. The following quote from a central north island Bed and Breakfast owner sums up what many people have told us:

> There's never going to be technology that can make breakfast, smile at people when they leave and then go and make beds and clean dirty toilets.

As another urban motel owner jokingly stated:

> If you can find me a robot that can do some of the crappy jobs around here I'd gladly buy it – as long as I had enough money!

In some cases there are examples of owners and managers who feel that ICT is actually reducing productivity and diminishing 'personal touch'. In this case email was often seen as the culprit. Several interviewees felt that email was a slow way of communicating and that they still turned to the phone to deal with any enquiries of a more complex nature. It was also common in our earlier interviews (much less so more recently) to find people discussing the problems associated with computer 'crashes' and limited technical support and back-up in rural areas.

Our survey research reinforces the broad themes and issues raised through our interviews. Over 45% of respondents felt that the introduction of ICT in their business had brought no discernible change in productivity (Table 5.14). Interestingly those who felt ICT had led to either a small or more significant increase in productivity (31%) were not much larger in number than those who felt productivity had decreased in some way due to the introduction of technology (25%).

Table 5.14: Impact of ICT on staff productivity

	Up	Up some	No change	Down some	Down
Staff productivity has gone up/down due to IT and Internet	13	18	45	10	15

More details on the perceived impacts of ICT on labour practices can be gleaned from responses to long answer questions in the survey (Table 5.15). Of the 186 responses that were received in this area 44% stated that technology had not brought about any changes, with a further 19% of responses focusing on the fact that they felt the question had limited applicability to their particular business situation.

Table 5.15: Long answer survey responses - impact of ICT on labour (n=186)

Changes	No.	%
No changes	81	44%
Not Applicable	35	19%
General Business Efficiency	21	11%
Minimal Changes	13	7%
Recruitment Methods/Resources	12	6%
Differences in Training	9	5%
Now Requirement for employment	8	4%
Increased Awareness of IT	7	4%

Over 20% of long answer responses focused on some element of improved business efficiency – normally in areas of booking, accounting and response times to customer enquiries. Other benefits mentioned included the fact that personal awareness of ICT had improved and that new recruitment methods had been opened up. A handful of people focused on the fact that ICT knowledge was becoming a more important factor to look for in hiring and training new staff.

Large hotels

The primary advantage of ICT mentioned in our in-depth interviews with Auckland hoteliers is efficiency. There was little doubt that without the current systems in place labour requirements would be higher and less time would be available for guest services. As one manager states succinctly

> The advantages are in cost savings and allowing more effective use of expensive labour.

However the impact of technology was also considered to be quite complex, with no clear linear relationship between ICT spend and labour productivity improvements. In

some cases technology might lead to staff reductions but open up new areas for hiring.

One manager gave the example of the introduction of email. This allowed him to do away with his PA as he no longer needed someone to type memos for him. This PA used to also do HR on a part time basis, not particularly well in retrospect.

> As time and legislation progressed I needed less of her ability as a PA and more in HR.

In this case ICT freed up some time and money to open up a full-time in HR which was much more valuable to the hotel. The HR person hired also brought with them new technology skills which have been useful in adopting better performance evaluation systems.

Most managers were also quick to stress that the core front-end systems (PMS, POS) that have done most to improve productivity and reduce labour costs are relatively mature technologies. As one manager noted:

> In the last 6 - 8 years, there have been no major ICT changes so no impact on labour. There have been incremental improvements in efficiency but no major changes. About 10 years or more ago, with the introduction of PMS in particular, there were major changes. The changes happening now are making marginal improvements in productivity and changing the focus from functional processes to guest service.

These feelings were supported by the web-survey (Table 5.16). Nearly 70% of those responding to the question on whether ICT had increased labour productivity felt there had been no discernible change in recent years, while a further 25% felt that productivity had increased to some degree.

Table 5.16: The impact of ICT on staff productivity – large hotels

	Up	Up some	No change	Down
Staff productivity has gone up/down due to computers	6	19	69	6

Because many core technologies have been in place for a while, and most people have some experience with technology through schools or daily life, there is a general expectation that people will know "what a computer is, and what a keyboard and mouse are". Several managers noted that people are also becoming more adaptable. One example given in this respect was

> A staff member was borrowed from another department to help out in reservations. She had not used Fidelio before but within 2 – 3 hours she had applied her knowledge of other systems and was working productively.

One area of labour saving and productivity improvement that can still be tapped is the tidying up and standardisation of interfaces between systems. This may change staffing needs, for example, the use of a direct link from central reservations or the use of IVR rather than a telephonist, may cause a review of front office staffing as the front office focuses back on its core duty - reception. Likewise the introduction of new modules to a conferencing package can eliminate re-keying between two pieces of software, this in turn will reduce the hours needed from a part time conference co-ordinator.

The complexity and difficulties of multi-tasking and moving between technologies was also highlighted by managers. Many felt that there was often a divorce between "operational knowledge and a deeper understanding of what the system is trying to accomplish". In simple terms there are "staff that know how to use the technology but don't understand what it is doing". This can create problems, one manager noted:

> We have mandatory fields in our software for the entry of commissions, but if the staff member has no idea why the hotel needs a relationship with travel agents, why the travel agents are paid commission, and what is net to gross we may find the wrong type of information being entered.

Another example given related to information collected and entered on the front desk or through reservations on where customers come from. One young staff member did not realise the importance of this information to the Director of Sales but new that the software had a mandatory field to fill in through the use of a drop-down menu: "suddenly the hotel was getting lots of visitors from Albania – because it was the first option on the list". Technology can certainly reduce the need to conduct mundane tasks but it can also add to pressure to turn work around quickly. Some managers noted that this can lead to staff learning tricks and making short-cuts with software which can then add up to a lot of work later on.

> This type of short cut and lack of understanding has flow on effects to other departments. A one second keystroke can generate half a day's work for a credit controller where, for example, an incorrect rate has been charged or the account billed to the wrong division of a corporate. In this case we have a labour saving device that is actually causing the need for additional labour.

The built in flexibility of technology can compound the problem. For example, reservations systems may offer something like 50–60 different rates in various permutations. While this ability to tailor rates to an individual customer's exact requirements can be a positive thing it can also overwhelm employees with choices and increase the possibility of errors, thus: "The very strength and flexibility of the system provides the unfortunate opportunity for us to compound errors".

Efficiency may also be increased without job loss. The issue is less of labour reduction and more focused on the fact that new hiring is not required. The work connected with such technologies is often shifted onto salaried employees and managers. Thus, in some cases, a yield management system running alongside a PMS enables management to do analysis and fine-tune rates in a manner that would have simply been impossible and very labour intensive in the past. E-purchasing also offers

advantages in terms of efficiency as department heads can have direct control of inventory.

In chains it is possible to benchmark instantly against sister properties and to compare returns to owners on a monthly or quarterly basis across the group. Previously this would have required someone to draw the figures together and make them comparable so the data would be well out of date by the time it reached the manager. Guest history is another area where centralised data has improved the ability to capture and store data. "As there is more information and staff get used to using it the ability to service the customer gets better".

The impact of ICT on service quality received a great deal of attention from those being interviewed. Most tended to agree with the notion that it had the potential to improve service there was also agreement with the notion put forward by Schlesinger and Heskett (1991, 74), that:

> the more that technology becomes a standard part of delivering services, the more important personal interactions are in satisfying customers and in differentiating competitors.

While the responsiveness and efficiency enabled by ICT was generally lauded there was the feeling that it could at times reduce the ability of both management and line workers to achieve the levels of service which are so vital in creating an effective hotel. The following quotes provide some perspective on this issue:

> We spend so much time hiring people's attitude and their character, heads up interactive, fun to be with, you know the whole hospitality thing and then we just pull the plug on it and say "nah you've got to do this" thrust them in front of a system that is so complex and so detailed and provides us (the managers) with this fantastic background information – personality lobotomy.

> …the 'moments of delight' seem to be decreasing as the technology becomes more prominent and the personal touch is lost. It becomes harder to keep it 'real'.

> I should not be stuck at my desk answering e-mails. I should be down working with clients, making sure areas are presented well, customers are getting great service, coaching and mentoring junior management, providing appraisals – that's the true heart of the business. Not sitting behind a computer all day.

ICT has also had some influence on the outsourcing of activities, which in turn has an impact on hotel labour use. While some hotels noted that they had moved from outsourcing their HRM/payroll systems due to improvements in technology and new chain-based requirements most had not moved work in-house. Traditional areas of outsourcing such as laundry services had not changed as a result of ICT.

The biggest impact on outsourcing is to be found in the management and maintenance of ICT itself (Table 5.17). Over two-thirds of companies outsource software

maintenance, with a slightly lower proportion of hardware and web-site maintenance being out sourced. Most would have at least one specialist ICT person on site but increasingly the complexity of system hard and software was beginning to outstrip their capacity to deal with problems when they arise. These issues of complexity are only exacerbated by the increasing sophistication of in-room entertainment and business technologies such as wireless broadband access and on-demand movie selection.

Table 5.17: Who does your computer maintenance?

Maintenance	Outsourced	In house
Software	70%	30%
Hardware	65%	35%
Website	65%	35%

ICT also has the potential to impact upon the way in which communication processes function within a hotel setting. While communication approaches will differ from enterprise to enterprise some common themes do appear. The Head of Departments of the hotel will normally hold an operational meeting at the beginning of each morning. This tends to be un-minuted and is sometimes referred to as the "morning prayers". Once a week, there is likely to be a formal minuted meeting. Here the team sets priorities and the coordination between departments in support of operational plans. In many hotels the minutes of this meeting are posted on staff notice boards so employees have a chance to get an overview of what is happening. In some cases there are whiteboards next to the notice boards on which people can and do make comments give feedback and make suggestions.

Less frequent is a "lunch with the boss" type meeting that may occur 3 – 4 times a year with different groups of primarily line staff. In this case manage may press more directly for feedback from staff. Due to operational practicalities the numbers of staff available to attend such meetings are limited but they represent an important way to gauge operational 'coalface issues' and for staff to 'let off a little steam'. As one manager mentioned, such approaches can help him to "think about problems from a different perspective".

The role of technology in enhancing these traditional modes of internal communication has been the focus of considerable academic discussion and generally the literature points out the fundamental limitations of technology in environments where basic communication is poor. On the other hand it can be a useful tool to supplement or strengthen workplace communication mechanisms that are already 'well oiled'.

Email is the main ICT tool used to enhance communication. All the Heads of Department in the hotels interviewed have e-mail and web access with the former replacing traditional written memos in most cases. While this form of communication can speed up and simplify the dissemination of vital information it can also present difficulties. Several managers noted the problem of people responding to email without taking time to think about it – a symptom of the increasing speed and work pressures.

The impact of this 'knee-jerk' response was felt in two key ways. In terms of business activities an email may arrive requesting an urgent response that someone may not have all the requisite knowledge to deal with. In the past people would have felt they had the time to consult and think things through, now there are occasions when the person concerned simply reacts rapidly and decisions may be compromised.

More significantly there were concerns expressed about the fact that emails can seem impersonal and perhaps even cause conflict in the work place if not handled correctly. As one manager noted:

> There is an etiquette round communication which we haven't fully captured yet. That's been the result of IT stuff that has happened a hell of a lot faster than the change in social mores.

Another opined:

> …email does not improve poor communication skills, actually it makes things worse because they can be poor communicators faster and more often!

Several hotels use a LAN to facilitate communication between heads of departments and managers but there has been little intrusion of technology into communication between management and general staff. As one experienced manager noted:

> There can always be more communication but you've got to question how much is actually taken in.

5.4 Hiring

As noted earlier, the ability to find staff with the right experience, attitudes and knowledge to work in the accommodation sector is difficult for both large and small accommodation providers. ICT has opened up some new opportunities to attract potential workers into the accommodation sector, with perhaps the most important being Internet-based job search sites such as Netcheck or Seek. There are, however, substantial differences in the ways in which these services are used by small accommodation operations and their larger counterparts

Small and medium enterprises

Our interviews and the web-survey reveal that small firms are making relatively limited use of Internet based job-search services. Use in urban areas is higher than in rural settings, but in reality word of mouth and traditional media outlets like local papers continue to play the most important role. As one rural interviewee noted:

> I tried an Internet job site once and got nothing back. I know the local kids around here use the net but I just don't think they look for jobs on it – they use it for other things. In the end I went for an old 'tried and true' approaches of talking to friends kids and asking the local WINZ office for suggestions.

On the other hand one urban operation had more success and swore by the method:

> It was great – I could place the ad for minimal cost and I soon had university students contacting me.

The web-survey revealed that well over 80% of small accommodation providers never place vacancies on the Internet with only 6% saying they usually or always do so. Word of mouth and personal recommendations are the dominant routes used in new hiring.

Table 5.18: We put job vacancies on the Internet

	Always	Usually	Sometimes	Seldom	Never	N=
We put job vacancies on the Internet	2	4	5	6	83	280

Large hotels

The situation was quite different for many of the large hotels interviewed, particularly those situated in the downtown core of Auckland. As one manager stated

> …trying to attract younger people into the industry - it's all going to be Internet.

Most operations tend to use a mix of approaches and several noted that newspaper adverts are now replicated on websites as well – blurring the division between print and web-based media. Referrals and walk-ins remain important especially for jobs that require high levels of customer interaction.

Some managers felt that the Internet tended to attract a slightly 'higher end' employee and was also an indication of a degree of familiarity with ICT which could be useful for some positions. For senior appointments and hiring at the management level the company intranet and the relationship network between HR Managers in the group would often be used alongside with some print advertising.

One large hotel was adamant that, for line positions, word of mouth was still the best was to hire and had in fact almost moved totally away from any form of advertising. They had recently introduced a staff referral scheme where if a staff member introduces a new employee who is hired and stays for 3 months the referring staff member receives a bonus.

Some of those interviewed also mentioned drawbacks to Internet-based advertising for workers. They felt that such tools were somewhat untargeted and tended to attract people who were not permanent residents, or who may even be living outside the country.

The nation-wide survey reveals that a range of methods remain popular with larger accommodation providers (Table 5. 19). Newspapers and the Internet were considered to be of equal importance with staff recommendations and hospitality school contacts/connections lagging someway behind.

Table 5.19: Important methods of recruiting staff (N=13)

Method	% of hotels
Newspapers	31
Internet	31
Staff recommendation	23
Hospitality schools	15

Approximately three quarters of those responding to the survey stated that they would at least sometimes put jobs on the Internet (Table 5.20). Nearly one third of hotels stated that they would always use this form of advertising.

Table 5.20: Placement of job vacancies on the Internet (N=16)

Percentage	Absolutely	Agree	Sometimes	Seldom	Never
We put job vacancies on the Internet	31	25	19	13	13

5.5 Training - internal & external issues

The training needs of the accommodation sector are complex and cover a range of different job types. Again there are some important differences between smaller enterprises and their larger counterparts

Small and medium enterprises

Interviews with small accommodation providers reveal that pressure for in-house training is felt most acutely in the behind the scenes tasks of bed-making and cleaning and in some front office activities. Because of the rather basic nature of many of these tasks many managers and owners see the provision of tertiary qualifications of secondary relevance to their business needs and training is conducted in house. As one owner interviewed on the North Shore stated:

> Tertiary education providers are largely irrelevant for this business, they don't incorporate enough industry experience and are too narrowly focussed on the 'dream' of working in large hotels.

A small bed and breakfast owner in Wellington concurred:

> Student training needs to include more 'hands-on' experiences and they need to let them know about how a broader range of accommodation businesses work.

These attitudes are reflected in the figures drawn from the national survey that show that the average small accommodation provider has 0.78 fulltime workers with some form of hospitality qualification and only 0.49 part-time workers, compared to high season mean figures for total labour of 2.57 and 3.08 respectively (see Table 4.4). Thus the ratio of unqualified staff to those with hospitality qualifications is

approximately 2.3:1 for full time workers in the high season and 5.3:1 for their part-time counterparts.

The issue of ICT training in relation to labour or personal needs as owners and/or managers was a focus for our national survey and the findings raise some interesting, and at times contradictory, issues (Table 5.21). A clear majority of operators feel that staff do not come to them with sufficient computer skills and a further 68% feel there is some need for better ICT training for those entering the industry, with 24% arguing that the need is strong. At the same time two thirds of respondents feel that computer training does not represent a major drain on the business activities. This indicates that while there is a desire to have better trained workers the need may not be that acute – especially given the tasks that many workers are focused on. Most significantly over 90% of respondents felt that additional ICT skills on the part of the work force would not lead to increases in hiring.

Table 5.21: ICT and training dimensions

	Always	Usually	Sometimes	Seldom	Never	N=
New staff usually come with enough computer skills	5	8	24	24	39	169
	Strongly needed	Required	Some need	Little need	Not needed	Strongly needed
There is a real need for better IT training in the industry	24	16	28	14	18	311
	Important	Useful	Neutral	Insignificant	Irrelevant	N=
How important is your personal need for training	19	21	27	19	14	380
	Highly skilled	Competent	Average	Slight	Non-user	N=
How would you rate your personal computer skills	10	24	41	17	8	394
	Very satisfied	Content	OK	Uneasy	Very unhappy	Very satisfied
How satisfied are you with your current IT competence	9	23	35	22	11	386
	Absolutely	Agree	Sometimes	Seldom	Not at all	N=
Computer systems training is a constant drain	5	5	10	14	66	264
	Absolutely	Agree	Sometimes	Seldom	Not at All	N=
Could employ more people if they had more skills	1	4	8	9	78	210

The findings are of course complicated by the fact that the 'workers' concerned are very often family members of the manager/owner themselves. To explore this issue we asked a series of questions about the survey respondents' perceptions of their own skills and needs in this area. Approximately 40% stated that they felt their need for training in the ICT area was significant or that such training would, at the very least, be useful. Approximately one-third felt that such training would be of insignificant importance or irrelevant.

When commenting on their own ICT skills only one-third of the respondents felt they were highly skilled or competent, with over 40% stating that they had 'average' skills. Around one quarter of respondents felt they had limited skills or could not really be classified as computer users. One third of respondents also noted that they felt uneasy or very unhappy with their current ICT competence.

Given the growing significance of ICT in the small accommodation sector, and the relatively high levels of ICT adoption revealed in this study, it is a worrying sign that such a large percentage of operators apparently lack the confidence to embrace technology and the benefits it can bring. This is clearly an area where ICT training may be deemed to be necessary, even if it is not as important for many of the cleaners and less skilled workers hired by the industry on a part-time basis.

The long answer sections of the national accommodation survey attracted a range of comments in the area of training. Over seventy comments alone were provided on the topic of WINZ trainees and their value to the industry (Table 5.22). While the question was oriented towards ICT skills provision a number of other themes were raised as well.

Table 5.22: Experience of trainees coming out of WINZ, with respect to IT skills? (N=75)

Experience	%
Negative	44%
Irrelevant	35%
Positive	19%
Mixed	2%

Most employers stressed that ICT training on the part of WINZ would be irrelevant to their needs especially in owner-operated settings; only 20% raised positive points regarding WINZ and ICT training. Some of the indicative statements made in the open ended answers included:

> We find that people approach us expecting that we will employ them to do the jobs that are actually the things we like to do ourselves, whereas we want people to do the jobs that we don't want to do - that's why we own our own business!
>
> The majority of WINZ clients we have interviewed are more interested in meeting their "looking for work quota" than actually working.
>
> WINZ sends totally inappropriate people to us and we no longer deal with them for job vacancies.
>
> Most that are referred by WINZ don't want to work but are forced onto an employer who then spends time training them up to go onto a new path/career.

> I was very disappointed all they want to do is to beat the system...most have no computer skills or have learnt the incorrect programs.
>
> Most young people these days have enough adequate computer knowledge to get them by in this industry, I'm not sure they need WINZ.
>
> Need to be trained on current systems. Sometimes they think they know more than they really do.

A question dealing with the effectiveness/relevance of ICT related training by tertiary institutions also generated an array of interesting responses the focus of which is summarised in Table 5.23. While 55% felt such training was not relevant to their business needs, well over a third felt that such courses were very relevant or at the very least good.

Table 5.23: How effective/relevant is the IT training from Polytechnics and Universities? (N=71)

Effective/Relevant	%
Not Relevant	55%
Very Relevant	27%
Good	10%
Relevant	8%

Again it is useful to look at some of the statements provided:

> They are trained nobodies that need work experience and need to get their feet on the ground in the real world.
>
> Their expectations are perhaps raised to unrealistic levels. Most small/medium employers are not looking for executives.
>
> We don't need them to come out of hospitality industry with Diplomas/Degrees - any one with basic customer services skills and Microsoft skills will do!
>
> Do they have degrees for window cleaners?
>
> Too many people are being trained in IT and not enough people being trained in real people-serving skills.
>
> I have to complement the polytechs on the Computing for Free courses. They are excellent and I really appreciate them.
>
> Very relevant as a lot of businesses in the hospitality industry rely on computer programmes to manage the business.

The responses to this question are more polarised than was the case for the WINZ related discussion. Indeed two bodies of distinct opinion emerge from the findings:

one emphasizing the irrelevance of any sort of qualifications in the ICT arena, the other revealing a real need which may not be immediate but which is seen to be growing in the future. It is also clear that owner operators usually consider themselves to be the ones handling ICT related work in small accommodation, even though a significant number cast some doubt on their own confidence and clearly show a desire for further training.

Large hotels

The role of training in the ICT-labour nexus was of major interest to the hotel managers interviewed in Auckland. There was an overarching feeling that all workers needed to gain a better understanding of technology. But the point was also raised that there is a key difference between knowing how to use technology and actually understanding its role in enhancing individual, departmental and overall hotel performance. In some respects it is clear that while every worker is an integral cog in the hotel machinery, the increasing use of ICT is increasing levels and speed of interaction, and opening up potential problems if people don't understand their role in the big picture.

As one manager noted:

> Skill levels required to understand both the technology they have to use, and the technology on offer to the guests, have increased. This requires more training and a higher level of skill at the entry level than was previously the case.

Some interviewees also noted the level of complexity involved with the number of different systems and the interfaces between them: "it adds a lot of training and requires staff to have a fairly high level of understanding of technology". These types of feelings were most often expressed in strata hotels which often sub-contracted non essential activities and had higher skill profiles than traditional full-service complexes.

All managers felt it is vital to explore the degree to which students emerging from training institutions actually fit the evolving needs of the industry. In this respect identification of any mis-match between labour needs and current student training was seen as a key area for future policy development in the sector.

> At the moment it is almost impossible to hire people into the organisation with the skills they need so they have very low expectations of new hires and expect to do a lot of training.

It was often stressed that exposure to the real world, rather than just new computer programs and systems was vital:

> You don't start out as a manager, to become a manager in a hotel you need to have an understanding of what each department is really about. You don't get that at college. College doesn't put you under the same pressure.

Another manager stated:

> This is a people business and the colleges need to understand that the people they are sending out are going to be directly in the public's face.

There was also a perceived unwillingness on the part of tertiary providers to fail people. Several interviewees felt it was unfair to everyone concerned to give people a piece of paper saying they are good enough when they just aren't ready. There was also a realisation that the proliferation of ICT based systems and rapid evolution of software often made it difficult for institutions to keep up with change and industry demand:

> In an ideal world everyone coming in would be Fidelio trained but the diversity of systems used in the industry means that this won't happen. As Fidelio is one of the big name systems a number of training providers do train on it but not all.

Because of these issues none of the hotels covered in the interviews expect to be able to hire people with all the skills they want. They do however find that the greater the skill base to build upon the better. They need people who are flexible and able to progress and change as systems keep changing so a solid education and broad knowledge and understanding of ICT are vital.

Most hotels covered in the interviews do all their training in-house with limited amounts of outsourcing. Some of the bigger chains have their own systems and training programs. Everyone attends an induction program introducing them to the hotel including the management team. Then within their department they are trained in specific required skills, much of this training is on-the-job. Once they reach the required level of competence they are then certified within the group concerned. As one manager noted:

> You never take them on as supervisors, you take them on with a view to getting there. That's one of the things we do – identify our potentials…we challenge them to move up a bit. But we would still go back over the basics.

The impact of technology on the actual training process was not raised as a major point in most of the interviews. One manager highlighted that the ability to use technology to better track employee performance made it easier to find effective 'buddies and mentors' for new staff. In general though the new interfaces, simulation of real life situations, and networked training software highlighted in the literature are seen as ways to compliment more traditional learning on the job, and certainly are not a replacement.

The bottom line for most managers is that staff must have time at the coal face, as summarised by this quote

> Hospitality is people driven and customer service driven. If you aren't prepared to smile at people and be nice and hear them complain to you and resolve their issue don't be in it!

The national accommodation survey asked large hotel respondents to comment on the broader training issues facing their segment of the industry as well as their own enterprise (Table 5.24). All respondents felt that there is a real need for ICT training in the hotel sector as a whole, not a single respondent felt that this was not an issue. Likewise all respondents felt there was at least some need for ICT training within their own organisation. These findings reflect the strong emphasis placed on this issue by the hoteliers included in our in-depth interviews.

Table 5.24: ICT and training dimensions

	Absolutely	Agree	Sometimes	Seldom	Never
Computer systems training is a constant drain	13	13	31	19	25
	Absolutely	Agree	Sometimes	Seldom	Never
I could employ more people if they had better IT skills	6	13	25	25	31
	Agree	Sometimes	Seldom	Not at all	
I have enough say in industry training, design and delivery	7	47	27	20	
	Strongly needed	Required	Some need		
Is IT training needed in your organisation	12	35	53		
	Usually	Sometimes	Seldom	Never	
New staff usually come in with enough computer skills	19	38	31	13	
	Absolutely	Agree	Sometimes		
There is a real need for IT training in the industry	18	35	47		

Nearly 60% of respondents felt that computer training within their organisation was at least sometimes a drain, with 13% absolutely agreeing that it was a constant drain on resources and time. Only 19% of respondents felt that staff coming into the organisation usually had sufficient computer skills, with 38% stating that this was sometimes the case. Nearly 45% of hotels responding to the survey noted that staff seldom or never came in to the organisation with enough computer skills. On the other hand a clear majority felt they could seldom if ever employ more staff if they did have better ICT skills. Only 6% were absolutely certain that they could employ more people with this knowledge.

Interestingly very few of the managers that responded to the survey felt they had enough input into industry training, and the design and delivery of external training programs. With 47% saying they only sometimes had input, and a further 47% noting that they seldom if at all had this type of opportunity. This perception on the part of industry is worthy of further research given the government's explicit attempts to

increase their input into Industry Training Organisations (ITO). It is important to note that ITO were rarely mentioned by any of the interviewees.

5.6 Future perspectives

While it is always difficult to look into the future with any certainly it is important that we gain some perspective on how businesses in the accommodation sector view the coming relationship between ICT and labour. In this case the differences between small and larger enterprises are not as great as in other themes covered in this study.

Small and medium enterprises

Smaller enterprises that were interviewed in the past were not always asked this question so the sample we can draw from is smaller than for other components of the study. Nevertheless, a detailed review of interview transcripts does highlight a few key issues. The first is that there is an expectation that the role of ICT will continue to grow in the industry – even though it is not entirely clear to everyone how, or in what way, this may occur. As one small operator in East Cape noted:

> I think it will develop more, and as it is more and more used it will become more popular. People now think that if I am going to set up a business, I better get a web site or email. Two years ago nobody thought that way. So if you see the difference from two years ago, the difference is absolutely dramatic.

Similarly an operator in Golden Bay, reflecting on growing booking via the Internet stated:

> It's just the way things are going. I didn't think I was the kind of person who would ever use computers, but you get left behind without them.

The potential impact on labour use is less clear – although clearly on the part of operators there is a feeling that one must move and progress with change if one is to maintain a competitive footing. This issue was addressed, however, in the national web-survey (Table 5.25).

Table 5.25: The future impact of ICT

	Very strong	strong	Some	Marginal	Very little
Computers will have a major impact on my business	41	20	21	8	9
	Inevitable	Agree	Neutral	Unlikely	Not at all
Smarter computers will gradually replace most office jobs	9	12	22	18	39

Most operators did not agree with the statement that smarter computers would gradually replace most office jobs in their operations, with nearly 60% saying this was impossible or unlikely. On the other hand 61% felt there was a strong or very strong chance that computers would have a major impact on the future of their business and related labour/skills needs. Indeed only 17% of operators surveyed felt that that this statement had a marginal or very slim chance of being correct. This clearly highlights the sense of change that has been picked up in the research.

Large hotels

For the managers of large hotels that participated in our in-depth interviews there was no doubt that technology would continue to play a major, a growing role in their business – driving improvements in efficiency, productivity and profitability. However there was also a clear sense that the introduction of technology for 'technologies sake' should be avoided at all costs. As one manager stated

> There must be a valid business reason for any technology that is adopted.

Several interviewees saw the major areas of future development coming in user interfaces, which improve the ability of staff to complete and fundamentally understand their job. Improved interactivity between the Internet and PMS will be a key to this, in a similar way to which airlines are creating more transparent access for seating choices and bookings. Improvements in speed of response were also considered to be likely – especially in the area of service delivery to customers, with, for example, check in and check out processes becoming less tedious at busy times. Nevertheless the key issue of service and the 'personal touch' continued to raise its head:

> You can fully automate a hotel with a credit card slot for check in and breakfast coming out of a slot but not everyone will want that. I don't want to be mollycoddled but I don't want machines to check me in and check me out.

Most of those interviewed felt that hotels had already gone through the painful stage of internal cost cutting and layoffs at least ten years ago because efficiency had to be improved. Future development will enhance communication with guests, the hotels' ability to know guest preferences, and to automate processes. However the staff time freed up will be redeployed into service provision. It was generally felt that future job reductions would be limited and that in some areas, particularly in data analysis and customer profiling, jobs would be gained.

> At the end of the day it comes back to customer service – no matter how good the technology is you still need people there and the personal interaction.

There were also concerns expressed that a 'high-tech, high-touch' future would make it increasingly hard to find the right staff and put ongoing pressure onto payment, reward, hiring and retention systems and skills. Some hotels will become more automated and use price to drive profitability. Some hotels will stick with service and provide value that way.

The national web-survey mirrors these themes to a large extent (Table 5.26). Nearly 95% of those responding felt that computers would have a considerable, or very strong, impact on their business in the future, including on labour skills and needs. On the other hand nearly 60% felt it was somewhat or very unlikely that computers would replace most office jobs, with less than 25% agreeing with the statement.

It is clear that managers in the larger hotel industry believe that a lot of the job losses related to ICT have already occurred. The challenge now lies in using new technologies to enhance performance and productivity, and to generate return business from satisfied customers, as one manger stated:

> Don't get sidetracked. There is a growing role for IT but let's keep our eye on the ball about what a hotel does. We are supposed to delight.

Table 5.26: Future impact of ICT

Percentage	Very strong	Considerable	Some
What impact will computers have on your business	59	35	6

Percentage	Agree	Neutral	Unlikely	Not at all
Computers will replace most office jobs	24	18	41	18

6 Conclusions

This report has highlighted a number of key issues in the relationship between ICT adoption and labour use/demand in the New Zealand accommodation 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 is 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.
- There are a growing number of policies that are encouraging ICT uptake by small and large accommodation enterprises. A key question must be asked though – to what extent do these policies incorporate dimensions that can cope with the related labour use and demand dimensions?
- There is growing pressure on the labour market with demand for skilled and experienced workers outstripping supply in both urban and rural settings. In many cases, companies are also finding it difficult to find reliable, semi or unskilled workers. The projected growth of tourism and the new skill requirements created by increased ICT adoption, mean that the labour market may struggle to meet industry needs for some time to come.
- For large hotels, the drive to improve efficiency and cut labour through ICT adoption came primarily during the mid-1990s. PMS and other labour saving technologies are now relatively established and 'bedded-in'. The primary impact of ICT on labour use is now in the area of skills acquisition requirements, multi-tasking needs and enhancements in service provision.
- For smaller operators the impact of ICT on employee productivity/labour reduction has been relatively limited. Most of these operations employ outsiders to handle more 'basic' operations such as bed-making, cleaning and occasional front office work.
- Owners and family members in small operations are often the people who handle more sophisticated activities involving bookings, accounting and the overall operation of properties. The role of the SME business owner is pivotal in establishing ICT goals, identifying information needs and managing both the financial resources for the ICT investment as well as the implementation phase. It is clear that many of these operators are feeling the growing impact of ICT in their day to day business operations. Many feel that they require increased ICT training and knowledge to be able to keep up with fast moving trends in this area.

- There is some degree of miss-match at the moment between the labour needs of both large and small accommodation businesses and the new workers coming out of training providers. Large accommodation operations, in particular, feel that ICT training needs to be improved, while for small operators it is owners and managers that appear to be most in need of training in the technology area. There is also an over-arching concern that not enough practical experience is imparted to those leaving training providers. These findings support the current focus of the New Zealand Tourism Strategy on identifying future workforce needs and aligning tourism training to meet them. TIANZ is working with industry training organisations like the Aviation, Tourism, Travel and Training Organisation (ATTTO) and the Tertiary Education Commission (TEC) to ensure that New Zealand is able to produce the skills the tourism industry requires.

- While ICT will continue to improve efficiency and reduce costs 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.
- For smaller operations the impact of technology in the future is also perceived to be considerable, but again it is unlikely that the impact will come in the form of extensive job reductions. Instead there will be a need for more training, particularly of owners and managers, in the use of ICT and a clearer understanding of how technology fits within and supports strategic business objectives.
- While rural areas lag slightly behind urban settings in terms of ICT use and impact, the gap is not wide. National and local government policy initiatives are likely to see this gap diminish further in the near future.
- The task of 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 terms 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 needs.

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 investment in equipment and the retraining of trainers. It is recommended that further research be conducted into the matching of labour needs and trainee provision. It is also clear that if that if we are to understand the complex mix of factors that enable effective engagement with ICT by accommodation operators, we will have to step beyond a simple reliance on survey-based research, and begin to engage directly with business through in-depth interviews and other methods.

In concluding we argue that there is a need to better facilitate access to training programmes for operators, their staff, and cluster organisations. Improved feedback to industry on labour demand and supply trends is required, and the establishment of formalised communication between industry 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.

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8 Appendices

8.1 Generic guide for semi-structured interview with SMTE

Section 1 - Background about the individual

This is an important section - not only does it tell us about the person and their background but it also helps to 'loosen up' the interviewee and put them at ease.

Basic information...tell me about yourself...i.e. NZer/migrant/age/ethnic origin etc.

(a) What tourism/non tourism employment were you engaged in prior to setting up this business? - this is important as it will open a range of issues: (i) the overall reliability of their information (someone who has only just started may have limited knowledge); (ii) the general interests/background of the person - for example if they were previously in charge of engineering or personnel this is an indication that you may need to focus on these areas and possibly lack information in others.

(b) Why did you initially decide to start your business and get involved in the tourism industry?

(c) What small business experience did you have?

(d) Was there experience that you consider to have been important in your previous work to the role you are currently in?

(e) Did you receive any financial/tourism industry advice prior to setting up the business?

(f) What role do family members play in your business, what other business activities are you involved in? was/is informal 'business angel' financing important to your firm.

(g) What courses/programmes or tertiary education have you received?

Section 2 - Background about the firm

Basic commercial information about the firm i.e. small new entrant, niche operator...

(a) How would you describe your firm (product evolution, employees)?

(b) What tourism services do you currently have on offer?

(c) What is the current ownership structure of your firm?

(d) Are the decisions of the firm made by a 'hands on' team or individual, or is there a formal board structure that makes the decisions?

(e) What licences, regulations, industry alliances, and environmental association approval did you have to get before you could start your business?

(f) What government departments did you have to deal with in setting up your business and how would you describe the experience?

Section 3 - Market characteristics

(a) Are you targeting a specific market and how would you describe it (i.e. particular age, gender, ethnic or national or socio-economic group, high volume/high yield)?

(b) How many individual clients has your company provided service for in the last week/month/year?

(c) What market research did you do before establishing your business?

(d) How has that market evolved over time?

(e) What ongoing research have you done to evaluate the success of that market research?

(f) Who would you consider to be your major competitors and why?

(g) Have you encountered any barriers to the market (i.e. market saturation)?

(h) What do you consider to be eco-tourism or what kind of person is an eco-tourist?

(i) Is New Zealand being marketed as a tourist destination in the markets you want to tap into?

Section 4 - Marketing

(a) How do you reach the market you are pitching for (i.e. do you use trade shows, travel agents, direct mailing)?
(b) Which marketing medium has proved to be most successful and why?
(c) What does your firm spend on marketing as a percentage of turnover?
(d) What strategy have you used for evaluating the effectiveness of your marketing campaigns?
(e) Have government institutions played any role in your marketing? What have been the tangible/intangible benefits of that association?
(f) Have you received any other marketing assistance outside the firm?
(g) What kind of assistance would the firm benefit from?
(h) Are you linked to any computer reservation systems or networks? why/why not?
(i) Have you considered using information technology to enhance and develop your product (i.e. use of a Web page on Internet)
(j) Have you developed business plan for the company?
(k) How do you measure customer satisfaction?
(l) Have you developed any strategic marketing plan and how it is important for you business?
(m) Do you keep personal customer information database and how?

Section 5 - Business associations/alliances

(a) Do you consider forming networks/alliances to be an important feature in your business?
(b) Have you formed any alliances or do you have any plans to make alliances in the future? What is or might be the nature (i.e. sector, size, location) of those alliances?
(c) Have you found difficulties in forming networks/alliances or in keeping them running (i.e. lack of commitment, domination by larger firms, idiosyncratic operations)?
(d) What kind of benefit for you and other similar businesses would you expect from closer communication with RTOs?
(e) How the local authorities/interest groups encourage small business in the region?
(f) Do you organise any special event with other businesses from the region in order to promote you product/region?
(g) Do you participate in any sponsorship activities within the community?

Section 6 - Supply

(a) What other businesses does your company rely on to provide its products?
(b) Do you have any problems with supplies/linkages (i.e. cost, quality of supply or difficulty with suppliers meeting deadlines)?

Section 7 - Labour

(a) Have you had any problems with labour availability or finding skills to suit your requirements?
(b) How do you recruit staff (i.e. advertisement, pro-active recruitment from tertiary institutes, word of mouth) and what age range do they fall in?
(c) Are you satisfied with the training the tertiary institutes currently provide for the industry (if not why not and how would you suggest improving things)?
(d) Are training institutes adequately marketing themselves to the industry?
(e) Do you use any in house or external training schemes for your employees?
(f) Are any of your staff members of a union?
(g) Do unions have any role to play in your industry?

(h) How do you negotiate/arbitrate with you staff with respect to working conditions and rewards?
(i) Is it possible for you to trade off labour for technology in your business?
(j) What role does information technology play in your business?

Section 8 - Information technology

(a) What information technology have you adopted - explain reasons why/why not?
(b) What are the main advantages for you company of using information technology (i.e. to enhance your product, facilitate the marketing joint venture)?
(c) How do you see the Internet/www as a marketing tool and business development tool (i.e., ability, reliability)?
(d) Do you feel that you know enough about IT and the tourism industry; would you like to learn more?

(e) Do you provide any training programs (have you attended any programs) relating to IT
(f) Has technology enabled you to improve productivity?

Section 9 - Tour locality/sustainability

Environment

(a) How would you describe the firm's relationship with the culture/community/environment in which your business operates (exploitation, indifferent, caretaker)

(b) Is your firm involved in any of the following activities;

- tourist education (i.e. environmental/cultural sensitivity)
- guide/operator training and/or education (i.e. environmental/cultural sensitivity)
- interaction with local authorities/conservation groups
- money returned to the region for environmental conservation

Community

(a) What linkages does your firm have with the local community (employment, purchase of supplies)

(b) Has your firm experienced any conflicts in the operation of your business with the local community?

Summary

(a) What are the major problems and prospects for your business over the next five years and where do you see your business at the end of that time?

(b) Are the institutions involved in tourism such as the, education institutions, New Zealand Tourism Board, local, regional or central government doing enough to support the tourism industry?
(c) What do you think about the current state of the tourism industry in New Zealand?
(d) What do you think about the future prospects for tourism industry in New Zealand/Golden Bay/community?.
(e) With the benefit of hindsight, would you go back in to tourism?

As part of our survey we would like to get a better understanding of the employment and operational structure of your business and the industry as a whole. You may not have these details on hand. For that reason, we ask that you consider the following questions and, if you are happy to provide this information, return the completed form in the self addressed envelop. ***All information will be treated in the strictest confidence****.*

1. How many workers do you employ in the following general categories (please do not list the same person twice)?

Position of employee	**M**	**F**
clerical		
driver		
management		
marketing/sales		
tour guide		
other		

2. What is the level of capital (including shareholders funds and external capital) employed in your firm?

Level of Capital	**√**
less than $50,000	
$50,000 - $100,000	
$100,000 - $500,000	
$500,000 - $1 million	
$1 million - $2 million	
$2 million - $5 million	
$5 million - $10 million	
more than $10 million	

3. Occupancy rates; visitor information… etc

8.2 Interview schedule for large Auckland hotels

Introduction

Introduce yourself and outline the project
Consent form
Methodology and broad project aims

Individual
How long have the been in current position and what is their previous background.

Property
Tell me a little about the hotel?
Prompts

- Current ownership
- Management company/franchise structure
- Clientele by segment
- Employee headcount range and part time full time split
- What, do you feel, are the major pressures being felt by the hotel industry (or your hotel in particular)? How do you respond to these pressures?
- -Have you found your consumers tastes and demands have changed over the last decade? In what way?

Labour Market Issues
The major issues question above often leads in to this

- What type of positions have you hired for this year? How does this compare with previous years?
- -From where do you hire people? How do most people find you?
- -Do you find there is a shortage of qualified labour?
    - Staff turn-over rate?

Decision making process
Are employees involved in any part of the decision making process ? eg asked for ideas concerning their department

What is your management method/style?

ICT
How important is technology (computers, automation) to your hotel?
How extensive and sophisticated are the systems (PMS, CRS, web?) in use?
What has been the major advantage of introducing new ICT? Why? Any disadvantages and why?
Their role in technology decision making, are they hands on in this area?
Independence of technology uptake (chain)

Staff/labour market skills
Training needs
Guest expectations of technology provision

Impact of ICT

- Job replacement due to technology
- Job creation due to technology
- Productivity (hotel performance measures)
- Job security?
- Staff/labour market skills
- Training needs

Staffing/Training needs including external provision

In-house training programs? (depth/content) What kind of on-the-job training is used in the various departments?

Thoughts on tertiary/private training of workforce

Use of/thoughts on govt training initiatives

ICT implementation maintenance

- what in-house capabilities exist

- if chain – what support comes and how?

-Do you make use of ICT subcontractors? Has this use of sub-contracting changed in recent years

-If they do make use of sub-contracting then what do they look for in terms of suppliers, what characteristics are important in a subcontractor? Who are they using? Is their location important?

Future

What about in the future? Do you see any trends emerging in the type of technology being used?

And how do you expect this affect who you need and how available they are?

8.3 National survey accommodation, ICT and labour for Accommodation providers with less than 30 employees

Section A : Employees and IT

About your workforce:

These questions relate to how many people work in the accommodation related services in your business, full-time or part-time, in the high season, or the low season (including working owners and family, if any).

Thinking about the seasons:	Full Time:	Part Time:
How many people work in your business?	/ Low / High Season	/ Low / High Season
How many of these people are employees?	/ Low / High Season	/ Low / High Season
How many of the total workers are female?	/ Low / High Season	/ Low / High Season
How many workers have some form of formal hospitality qualification?		
How many rooms do you have?	Rooms	
How would you describe your operation?	Motel	
What town or area are you located in?		
What is the average length of stay of your visitors?	Days	
What is your percentage of overseas visitors?	0% 20% 40% 60% 80% 100%	
What proportion of your guests come through an agency or other referral service?	0% 20% 40% 60% 80% 100%	
How many years have you worked in hospitality/accommodation?	Years: 8	
How long have you worked for, or owned this business?	Years: 0	
What is your highest formal hospitality qualification?		

Section B: About your business' use of information technology (IT)

Do you have a computerized:	Do you have?	Is it outsourced?	
Reservations system?	Yes ☐ No ☐	Yes ☐ No ☐	
Property Management System?	Yes ☐ No ☐	Yes ☐ No ☐	
Payroll Application?	Yes ☐ No ☐	Yes ☐ No ☐	
General Accounting system?	Yes ☐ No ☐	Yes ☐ No ☐	
Conference Software?	Yes ☐ No ☐	Yes ☐ No ☐	
Telephone call charging?	Yes ☐ No ☐	Yes ☐ No ☐	
Restaurant Systems?	Yes ☐ No ☐	Yes ☐ No ☐	
Automated Caller answering system?	Yes ☐ No ☐	Yes ☐ No ☐	
Purchasing module?	Yes ☐ No ☐	Yes ☐ No ☐	
Database Marketing?	Yes ☐ No ☐	Yes ☐ No ☐	
Housekeeping Module?	Yes ☐ No ☐	Yes ☐ No ☐	
Publishing System (for brochures etc.)	Yes ☐ No ☐	Yes ☐ No ☐	
Does your business have a standalone web page?	Yes ☐ No ☐	Yes ☐ No ☐	

Does your business have email?	Yes ☐ No ☐	Yes ☐ No ☐	
Are guests able to make a booking with you over the Internet?	Yes ☐ No ☐	Yes ☐ No ☐	
Is your business shown on a shared Internet site, where your business is displayed with others? (e.g. Jason's or AA)	Yes ☐ No ☐		
Do you share a computerised system with other providers? (in a chain, or franchise for example)	Yes ☐ No ☐ If 'Yes' please specify:		

Section D: Computerisation and training

Please select a choice on the scale for each question that indicates the extent to which the statements describe how you feel (click the appropriate button).

Section D: Views on Training

How would rate your personal computer skills?	Highly Skilled	☐ ☐ ☐ ☐ ☐	Unskilled	☐ n/a
How satisfied are you with your current level of IT competence?	Very Satisfied	☐ ☐ ☐ ☐ ☐	Not Satisfied	☐ n/a
Do you on the whole feel confident about using the information systems and computing facilities provided for you?	Confident	☐ ☐ ☐ ☐ ☐	Not Confident	☐ n/a
How important would you rate your personal need for IT training?	Important	☐ ☐ ☐ ☐ ☐	Not Important	☐ n/a
How would you rate the need for IT training in your organisation?	Strongly Needed	☐ ☐ ☐ ☐ ☐	Not Needed	☐ n/a
Do you feel you have enough say in the design and delivery of IT training in the hospitality industry?	A Lot of Say	☐ ☐ ☐ ☐ ☐	No Say	☐ n/a
How adequate is the training given to people coming into the Hospitality industry (from polytechs, Etc..)	Very good	☐ ☐ ☐ ☐ ☐	Useless	☐ n/a

Type in as much or as little as you need for each question.	
What are the key employment issues impacting on your business?	
What has been your experience of trainees coming out of private providers, including WINZ sponsored courses, with respect to IT skills?	
How effective/relevant is the IT training given to young people coming out of the hospitality industry Diplomas/Degrees in Polytechnics & Universities?	
How has IT changed your employment practices?	

National survey accommodation, ICT and labour
for Accommodation providers with more than 30 employees

Section A : Employees and IT

About your hotel:		
How many rooms do you have?	☐ Rooms	
What grade of accommodation do you offer?	1 Star ▼	
What town or area are you located in?	☐	
What is the average length of stay of your visitors?	☐ Days	
What is your percentage of overseas visitors?	☐ 0% ☐ 20% ☐ 40% ☐ 60% ☐ 80% ☐ 100%	
What proportion of your guests make their own reservations?	☐ 0% ☐ 20% ☐ 40% ☐ 60% ☐ 80% ☐ 100%	
Employment:		
Thinking about your normal level of employment:	**Full Time:**	**Part Time:**
How many people are employed in the hotel?	☐	☐
What percentage of these are female?	☐	☐
How many of your total staff (approximately) are under 25?	☐	☐
How many (approximately) have some external Hospitality qualification?	☐	☐
How many vacancies occur each year in your:	Front of house:	☐
	F & B:	☐
	Management:	☐
	Operations:	☐
Do you have a specialist HR person? (at least 50% of their day in HR)	Yes ☐ No ☐	

What methods are most important to you in recruiting staff?	

Section B: About your use of Information Technology (IT)

About IT		
Does your Hotel have a computerized:	**Do you have?**	**Is it outsourced?**
Reservations system?	Yes ☐ No ☐	Yes ☐ No ☐
Property Management System?	Yes ☐ No ☐	Yes ☐ No ☐
Payroll Application?	Yes ☐ No ☐	Yes ☐ No ☐
General Accounting system?	Yes ☐ No ☐	Yes ☐ No ☐
Conference Software?	Yes ☐ No ☐	Yes ☐ No ☐
Telephone call charging?	Yes ☐ No ☐	Yes ☐ No ☐
Restaurant Systems?	Yes ☐ No ☐	Yes ☐ No ☐
Automated Caller answering system?	Yes ☐ No ☐	Yes ☐ No ☐
Purchasing module?	Yes ☐ No ☐	Yes ☐ No ☐
Database Marketing?	Yes ☐ No ☐	Yes ☐ No ☐
Housekeeping Module?	Yes ☐ No ☐	Yes ☐ No ☐

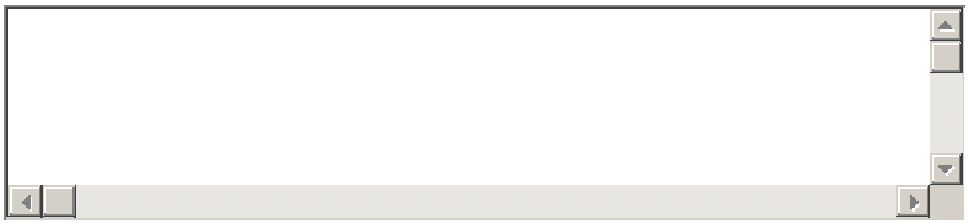
Publishing System (for brochures etc.)	Yes ☐ No ☐	Yes ☐ No ☐
Who does your computer maintenance?	**Is it done?**	
For software?	In House ☐ Outsourced ☐	
For hardware (computers, printers, etc)?	In House ☐ Outsourced ☐	
For website?	In House ☐ Outsourced ☐	
Do you offer your guests:		
Eftpos?	Yes ☐ No ☐	
Broadband/Jetstream, or similar?	Yes ☐ No ☐	
RF/WiFi?	Yes ☐ No ☐	
Movies on demand?	Yes ☐ No ☐	

Section C: IT Attitudes

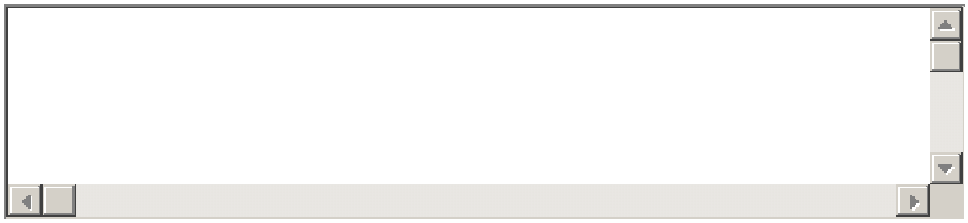
Please select a choice on the scale for each question that indicates the extent to which the statements describe how you feel (click the appropriate button).

IT Attitudes				
Your attitude to IT and hotel computer systems				
Computing is a constant problem for us	Absolutely	☐ ☐ ☐ ☐ ☐	Not Really	☐ n/a
We put job vacancies on the Internet	Always	☐ ☐ ☐ ☐ ☐	Never	☐ n/a
Computer systems training is a constant drain	Absolutely	☐ ☐ ☐ ☐ ☐	Not Really	☐ n/a
New staff usually come in with enough computer skills	Always	☐ ☐ ☐ ☐ ☐	Seldom	☐ n/a
Computers will have a major impact on my business in the future	Very Much	☐ ☐ ☐ ☐ ☐	Very Little	☐ n/a
We are totally dependant on computer systems today	Absolutely	☐ ☐ ☐ ☐ ☐	Not Really	☐ n/a

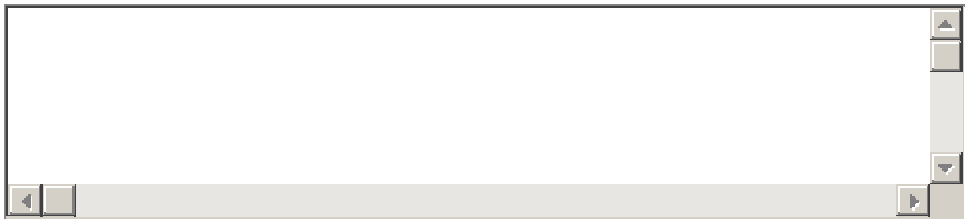
I could employ more people if they had better IT skills	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
I sometimes think computers are more trouble than they are worth	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
We don't make enough use of our customer history	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
The data in our systems is well integrated	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
I feel I have enough say in the design and delivery of training in the industry	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
How would you rate the need for IT training in your organisation?	Strongly Needed	☐	☐	☐	☐	☐	Not Needed	☐	n/a
There is a real need for better IT training in the industry	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
Smarter computers will gradually replace most office jobs	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
I think hotel employers are over-regulated	Absolutely	☐	☐	☐	☐	☐	Not Really	☐	n/a
Staff productivity has gone up/down due to IT and the Internet	Up	☐	☐	☐	☐	☐	Down	☐	n/a
My guests expect assistance with their personal computing needs	Always	☐	☐	☐	☐	☐	Never	☐	n/a
How important is your website to your organisations' financial performance?	Important	☐	☐	☐	☐	☐	Not Important	☐	n/a
Do you keep track of it's your websites financial contribution to your organisation?	Yes ☐ No ☐								
NZ Hotel Industry Issues									
What are the key employment issues currently facing your hotel?									



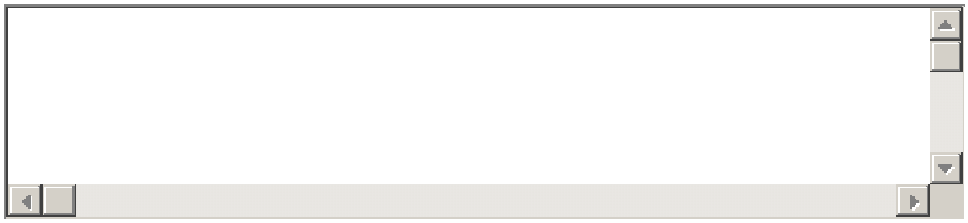
How has IT changed your employment practices?



What are the key issues concerning IT and the Internet for the future of your hotel?



How effective/relevant is the IT training given to young people coming out of hospitality Diplomas/Degrees in Polytechnics and Universities?



What has been your experience of trainees coming out of private providers, including WINZ sponsored courses, with respect to IT skills?