

ICT,(Information Communication Technology), Peripherality and smaller hospitality businesses in Scotland

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Abstract

This paper explores the role of ICT in small tourist establishments. ICT has been extensively promoted. First, as a means of overcoming the disadvantage of distance and secondly as a mechanism for improving efficiency within the business and in improving communication outside the business. However, we know little about the extent and types of application of ICT in small rural businesses. Since the tourist industry is one of the few growth areas in peripherality, this seems an appropriate industry in which to explore the use and application of ICT. Preliminary investigations had indicated that many business owners restricted their use of ICT because they were unfamiliar with the systems and that they do not “trust” their efficacy. Moreover, from a conceptual viewpoint the competitive advantage of small rural hospitality providers depends on a personal, individualised service that is closely related to the attractiveness of rural places. If so, the standardisation that may be implied by ICT, may run counter to the ethos of a particularised and personally delivered service. Paradoxically, the very remoteness might work to create an advantage in employing ICT to reduce the impact of distance and consequently can be of great benefit to these small businesses. Consequently, our investigation explores these issues.

Our study had two stages, an initial survey to determine the extent and pervasion of ICT and a second interview stage to explore the role and applications of ICT. We found that ICT was used extensively, often to overcome distance and in particular to communicate effectively. We were surprised to find that ICT was seen as a way of enhancing personal service and that rather than a barrier, it was seen to promote quality of service. Some business owners demonstrated that they had built up their skills to use ICT very effectively for the marketing and sales of their product, but many have been slow to respond to using ICT to maintain

supply side functions. We concluded that there were a core of “enthusiasts” using ICT effectively but if many rural hospitality business owners increased their use of, and had greater familiarity with ICT systems, their businesses would benefit more through supply and operational effectiveness.

Keywords; rural enterprise, rural hospitality businesses; ICT, rural markets

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INTRODUCTION

The rural is often distinguished by its distance from the urban, the centre. Malecki (2003) calls this the rural penalty and identifies the extra costs and difficulties that distance imparts. Thus, the rural becomes both identified and marginalised by distance. Yet information technologies seem to hold the promise to reduce the impacts of distance. In conjunction with entrepreneurship, Drabentstott, (2001) argues, tapping into digital technology can reduce the tyranny of distance. Moreover, the very qualities associated with being rural, which is established in distance, have been claimed (Anderson, 2000) to allow entrepreneurs to transform what has been conventionally viewed as peripheral weaknesses into business assets. These paradoxes form the context and purpose of this paper. Our objective is to explore if and how ICT influences distance and business efficiency as it is experienced by small rural hospitality businesses. We want to know in what ways, and for what reasons, rural hospitality entrepreneurs use ICT.

The use of ICT has provoked considerable interest in rural enterprises and in rural tourism research in particular (Clark et al, 1995; Mitchell and Clark, 1990; Grimes, 2000; Malecki, 2003). Buhalis and Main (1998) note how small rural hospitality business can provide stable employment and enable the infusion of tourist expenditures into the local economy. They also note how the information revolution can offer significant advantages, but point out that their research shows that many rural small firms, especially hospitality organisations, have been reluctant to use ICT. Indeed Mitchell and Clark (1990) talk about the variation in ICT adoption to propose a two tier rural economy, one tier embracing ICT and the others, non-users, left out. There are therefore good sound practical reasons why we should examine ICT in small hospitality firms. Furthermore there are some interesting, more conceptual issues. As indicated earlier, the rural is often presented as a special place with particular attractive qualities. Indeed Anderson (2000) argues that the entrepreneurial maintenance of these

“rural” qualities are a product of distance, but produce a shift in a cultural paradigm as well as the technological shifts discussed earlier. Examining rural hospitality businesses therefore may provide us with some insights as to how the cultural qualities of rural are worked and used in ICT. Hospitality providers seem an ideal focus for such a study, since they owe much of their existence to being in the rural.

Rural hospitality firms come in many forms, so our objective is limited to examining those firms who provided rooms, food and drinks. These aspects appear to epitomise rural hospitality. However, the diversity of the industry is mirrored by the diversity of methods employed to study the applications of ICT. Studies to date are often descriptive with few theoretical or conceptual studies (Sheldon, 2000). Our intention is to explore the conceptual side by examining if and how the “rural” is used in marketing through ICT. For the practical issues, what sort of ICT is used, what benefits it brings and what disadvantages or difficulties are experienced, we use existing models; “supply side”, market led approaches and “buy side”, supply purchase approaches. These provide us with an established and helpful framework to analyse ICT applications.

The very nature of small rural hospitality providers and related products make them ideal for such a study. Apart from being a 24 hour operation, the product, rooms, is “perishable” in that if the sale is not made, it is lost for ever, and the firm normally “has a fixed capacity and cannot use inventory as a buffer to deal with fluctuations in demand” (Yeoman and Ingold, 1997, p.5). Thus, the efficient use of the product combines with operating effectiveness in profitably addressing a highly variable consumer demand. Moreover as rural places may suffer in supply terms from distance, an efficient supply system is important. (Milne et al., 2005). ICT may offer solutions to these rural problems. In addition, on the market side, the internet is seen as “almost pure manifestations of marketing principles and practices” (Inkpen, 1998, p. 178) in that “it levels the playing field, enables companies of different sizes to

compete on more equal terms. It also allows a company to open up a direct channel of communication with its customers and success is not always proportional to the money spent on designing it.” On the supply side, it allows for open channels of communication with suppliers, allowing for product identification and maintaining inventory and on both “sides of the counter”, it allows for relationship building with suppliers and customers. Consequently, the use of ICT does not just offer practical benefits for general management; it can help hospitality providers to overcome the disadvantages of place and space.

The tension within the physical and social constructs of rurality forms the context for our study. If the attraction of the rural is shaped by physical, social and cultural “distance”, what then is the role and impact of ICT in reducing this distance? We examine small rural hospitality businesses because they appear to us to be classically and uniquely located in both the social and economic space of rurality. They may depend upon the uniqueness of rurality to encourage visitors, but are correspondingly disadvantaged by distance. Moreover, in our preliminary enquiries, we found that some hospitality providers seemed concerned that the use of ICT might adversely affect their personal relationships with customers. Consequently, our paper has two elements; the practical issues of ICT: if, and how ICT is employed in improving the running of small rural hospitality businesses and more conceptually, we are interested in developing an understanding of how ICT is employed in the commodification of the countryside.

The study uses a combination of survey and in depth interviews to explore the issues surrounding the implementation of ICT. Our respondents are drawn from the Grampian area of Scotland; all are owners or managers and are responsible for running their establishments. The paper first explores the impact and meanings associated with being rural. It then considers rural hospitality businesses and from there we examine ICT in hospitality businesses. From this broad contextualisation of our research questions, we provide an account of our methodology. This leads to our findings that are reported in two parts, our

survey followed by our interviews. The survey section deals largely with the issues of scope of ICT applications. The interviews are mainly concerned with “why” and “how” questions. Taken together, our findings allow us to draw some practical and theoretical conclusions about ICT in rural hospitality businesses. The major contribution of the paper is an overview of the implementation of ICT in small hospitality businesses. A secondary contribution is the exploration of the more theoretical issue of how ICT enhances personal service, what contribution it makes to add value and gain competitive advantage by the examination of supply and demand side practices for different types and sizes of units in a rural environment. Our conceptual contribution lies in the exploration of how ICT influences space and distance.

THE RURAL, DISTANCE AND HOSPITALITY

The essential physical characteristic of the rural, however defined, is distance from the urban. Space, notes Warntz (1967, p.7), "is a tyrant and distance enforces his rule". Anderson and McKain (2004) claim that space imparts both isolation and insulation, created in the friction of distance. Rural places appear to stand apart from industrialisation by the very nature of their remoteness, so that distance sustains their exclusion. As Urry (1981, 1985) explains, specific spatial effects induce social actions, so being rural can affect small businesses. Yet this characteristic of being separate and different from the urban is also arguably a significant element in rural attractiveness. In essence, it is clear that people living in post-industrialist societies such as the UK are increasingly keen to “consume” rurality. As Anderson and McKain (2004) argue, changes within rurality can be examined usefully in terms of a shift from a zone of production to one of consumption, thus emphasising the significance of market demand for such rural hospitality providers. Many authors have observed that such markets exist widely in rural areas, and that, in many ways, they may underpin existing rural economies (Keeble et. al., 1992; Bryden & Bollman 2000; Bryden & Munro, 2001). Furthermore, as traditional rural employment and wealth creation opportunities dwindle, they appear to be of increasing importance (Zontanos and Anderson, 2004). In this way being

rural, the tyranny of distance creates both the uniqueness of the rural and the friction of distance. The social and physical dimensions of space impart both benefits and costs. Distance creates barriers to communication but simultaneously differentiates the rural. As Hamnett (1984, p.11) describes it, “the economic evaluation of distance plays a crucial role in the social organisation of space”. Ball (1984, p. 68) extends this argument, “space is not simply a friction which economic activities have to overcome. Instead spatial differentiation imparts fixity on economic activities”.

THE HOSPITALITY INDUSTRY IN RURAL LOCATIONS

Small and Medium Size Enterprises (SMEs) are drivers of the UK Economy with some 99 percent of all United Kingdom (UK) firms defined as SMEs (Marin, 2004). A large number of these businesses are tourism businesses, consisting of some 127,000 with an average annual turnover of less than £250,000 and as such can be classified as small firms (Department of Culture, Media and Sport, (DCMS), 2001). Moreover, the very nature of tourism means that there is a large presence in rural areas. Of these small tourist businesses, approximately half are situated in remote locations. Of course, not all of these businesses can be categorised as entrepreneurial. Many are simply classic small business, characterised by owner-management. However, in looking at the application of ICT, we argue that this is innovative in the “Schumpertian” process view; that is to say the application of innovations to do things better and cheaper. Thus, any small business that applies innovation might be categorised, in some ways, as entrepreneurial.

North and Smallbone (1996) note how the relentless decline of rural traditional industries has created a need for the new jobs arising from new and existing small firms in the service sectors such as tourism. Hotels and Restaurants are an integral part of the Tourism Industry that creates nearly 5% of all U.K. jobs and provide, in total 1.4 million jobs (Labour Market Trends, (LMT), 2004). Morrison (1998) points out that in the tourist accommodation sector,

owner operators' account for some 85% of establishments, but she also notes the typical weakness of such small firms. When combined with the characteristics of peripheral destinations, such as seasonality, remoteness and low occupancy rates, "the challenges to successful business development are accentuated", Morrison (1998, p. 192). Nonetheless, tourism, especially small firm tourism, remains central to rural development (Briedenhann and Wickens, 2004). Small businesses in rural places are part of the community (Spillan and Hough, 2003) and "often strive to put something back into this community", (Barringer and Greening, 1999, p. 12). Therefore, although crucial to rural community, small businesses are much more fragile than large ones.

Rural businesses, often as a function of their location, are small, but SME's in peripheral regions face additional challenges to competitiveness beyond those of the innate limitations associated with organisational size (Cooke 1996; Vossen 1999, Irvine and Anderson, 2004). Consequently, if these small firms wish to compete they must increase their levels of innovation, where innovation is broadly defined as including both technological and organisational perspectives. Deakins et al (2003) show ICT as a particular innovation that has been taken up by rural firms. One sector that has shown progress in the area of innovation in small firms is the Hotels and Restaurants sector (McAdam and McConvery, 2004); Martin (2004) found that the hospitality industry in general seemed keen to embrace the new technology. Milne et al (2005) note the number of ways that information and communications technologies can enhance the performance of an accommodation enterprise and assist in gaining competitive advantage. 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 create communities of online suppliers and clients. Martin (2004) examined the

concept of E-innovation where innovation relates to the development of customer relationships to provide long term benefits and easier experiences for the customer; “better enabling customers to do what serves their purposes” (Drucker 1999,p.225). Customer relationships can thus be built and maintained at both a strategic and operational level by ICT in the hospitality industry. Providing customer service is also an important part of effective use of ICT in hotels. Martin (2004, p. 86) claimed that “rapid and effective follow up” and by “delivering what is promised" could facilitate this. Camison (2000) studied a number of rural hotels in Spain and noted some specific benefits from ICT; more agile management, image improvement, service quality, efficient information, fewer and more motivated employees.

ICT AND THE HOSPITALITY BUSINESS

Although ICT has been promoted as a panacea by some authors, it can be problematic. Milne et al (2005) demonstrate 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). Methodologically, Matlay and Addis (2003, p. 322) note the “study of the use of ICT in general is limited by a paucity of empirically rigorous surveys and in itself represents a difficult challenge”. Ramsey et al (2003, p. 253) claim it is “under-researched, conceptually confused and widely generalised”. The study of ICT is also considered difficult because of the speed of change and growth of the technologies themselves, thus presenting a challenge of significant complexity and uncertainty. (Reynolds 2000). For example, ICT and computing has been characterised as “Stand Alone” or “Networked” or by functions. Moreover, there are seen to be many barriers to its effective use; as well as time, size and limited resources, factors such as an over-reliance on intermediaries for product marketing, on-line booking and procurement have been noted (Reynolds 2000). Other barriers may include the lifestyle choice of the proprietor that could dictate a negative attitude towards e-commerce, (Braun 2005). Ramsay et al (2003, p.261) contended that it is not just raising awareness of the potential and benefits of ICT “but by

raising a business awareness and increasing business skills in general, as any problems will not just be reduced by increasing the technological competence of small businesses”. Although there are some training initiatives provided by agencies and internet forums, it is unclear what the uptake has been by small tourism providers. (Galloway, Mochrie and Deakins, 2004). There are also concerns about the availability and transfer rate of ISDN and Broadband (ADSL) in rural areas (Smyth et al, 2001). There are negative factors that may limit the use of ICT, including the issue of de-personalising service, the introduction of price transparency, which might benefit the consumer, but reduces the flexibility of management. Most small tourist hotels have long booking horizons and guest stay for longer (Abbot and Lewry, 1999) and are less likely to need the immediacy of ICT. Nonetheless there is strong evidence that ICT has great benefits for the hospitality industry (Baggio, 2005). Buhalis and Main (1998, p. 201) summarise thus, “the internet is gaining commercial viability and is particularly suited to small businesses, where it enables them to keep doors open 24 hours a day, at a minimal cost to customers (and providers) all over the world.”

The literature suggests that it is useful to model the use of ICT at different levels of development that reflects their interest and the technology available (Milne et al, 2005). Models have been developed for both the supply side and demand side of ICT application. Chaffey et al., (2003) proposed the following model for the supply side of the business process. This model defines five levels of ICT application:

1. No use of the web for sourcing and no electronic integration with suppliers
2. Review and selection from competing suppliers using; intermediary web sites, B2B exchanges and supplier web sites. Orders placed by conventional means
3. Orders placed electronically through “EDI” via intermediary sites, exchanges or supplier sites. No integration between organisation and supplier systems. Re-keying of orders necessary into procurement or accounting systems

4. Orders electronically with integration of company's procurement systems
5. Orders placed electronically with full integration of company's procurement, manufacturing requirements planning and stock control systems.

For the demand side, the marketing element of service led enterprises, Ditto and Pile (1998) identified three different levels of development; informational, transactional and relational;

1. The informational basic level with web-site providing the same information available through traditional marketing, by a one way process
2. The transactional level enables communication with the customer who identifies with the options such as the "virtual tour". There is two way communication carried out by email, telephone or post
3. The relational level involves interactivity with the customer enabling the development of a continuous relationship from the original transaction through the internet. At this stage, the internet is a key factor in the management of the enterprise.

These models provide a useful framework to establish the nature and extent of ICT development in small firms.

Our chosen study area is the Grampian region of Scotland. Grampian is the north east shoulder of Scotland with a tourist product primarily focused on rural scenery and castles, so that heritage and history play a major part in tourist attraction. Grampian's attractions currently range from outdoor activities, natural and built heritage to adventure and theme parks. Aberdeen and Grampian visitor numbers increased by 5% from 2003-2004 (www.scotexchange.net, 2005), including more than 110,000 overseas visitors. Researchers have debated Grampian's problems of seasonality and peripherality and analysing what disadvantage is placed on the area because of these factors. Peripherality has been viewed as the biggest problem, being held responsible for the increasing amount of difficulties being

experienced within the industry (Baum, 1996) and is most often viewed as the most consistent policy issue within cold-climate areas. A peripheral area is seen as an area of remote geographical isolation that is far away from central areas of activity, with a poor infrastructure which means access is difficult (Brown et al 1999). This problem is especially evident in Grampian where the majority of the region is isolated from major cities. It is an area with a mainly peripheral structure with poor roads and a large rural community. It also contains some unique tourist attractions and wonderful scenic beauty, whisky and castle trails. Accordingly, we argue that Grampian region has the rural characteristics that have created the research context that we want to explore and presents us with an ideal context within which to answer the following questions.

1. How are small hospitality providers using ICT?
2. How are they using ICT and the internet specifically to help improve supply side and demand side functions?
3. Are they using, and in what ways, ICT to overcome the disadvantages of distance to bridge place, space and time?
4. What innovative practices, if any, have they developed using ICT?

METHODOLOGY

Given that our objectives were to establish the extent and explore the nature and experience of ICT use, we employed two stages of data collection. The first stage was intended to build up a picture of what was happening with ICT in small hospitality providers in Grampian. The second stage addressed our need to try to understand the processes of ICT application. Accordingly, the first stage was a survey employing a structured questionnaire to provide quantitative and qualitative data from a sample representative of the area. These data were intended to address the first three research questions. Our sample frame was drawn from hospitality businesses in Grampian. The hotels were chosen from the Aberdeen and North

East of Scotland Yellow Pages (2004) (and one in five) (20%) was sampled. This represented 93 independent hotels from urban and rural locations. The questionnaire was designed to capture data about the business, the use of ICT and any particular aspect of ICT in peripheral locations. From these data we developed an overview of the use of ICT in rural locations. From the open-ended questions, there were a number of theoretically interesting issues that merited exploration. This formed the second stage of our enquiry where we purposefully selected 10 respondents for interview. These respondents demonstrated an “interesting” attitude and were thus theoretically rich. Consequently, our interviews generated more detailed and in depth data about their organisation and qualitative data about the practices and the process carried out in their establishment. It was recognised the limitation that these owner- managers surveyed were generally “technophiles”, technological enthusiasts, but were in a position to give us more specific and detailed responses. The data from the interviews were analysed to provide broader, fuller answers to the first three questions and to address the final research question.

The survey data were processed using descriptive statistics to analyse single variables and simple non-parametric tests were used to compare variables and significance of normally distributed results. The tests included frequency analysis and cross tabular analysis. The cross tabular analysis (Pearson chi-square test) was used to check significance within the normally distributed results. Significance was tested at a 90% confidence level. (The majority of tests proved significant and are all represented). All of the tests were carried out after the variables were coded onto SPSS, (Statistical Package for Social Sciences). Because some of the variables had open-ended responses, these were grouped using a Pragmatic Content Analysis in order to collate the similar responses and to include them as part of the descriptive analysis. A number of tables and charts were constructed at appropriate stages to describe the results. We employed an inductive approach to analyse the interview responses that were recorded and transcribed; looking for patterns and themes by asking ourselves; “What is going on here”. (Halinen and Tornroos, 2004) and discovering emerging categories and concepts

(Glaser and Strauss, 1967). In essence, this allowed us to see similarities and differences in attitudes to ICT. The models of Chaffey (2003) and Ditto and Pile (1998) were used as a framework to shape specific questions related to their stage of development, and thus to analyse the different levels of development of use of the internet for purchasing and marketing.

FINDINGS- THE SURVEY

How are small hospitality providers using ICT?

We received 49 responses from 93-posted questionnaires, a satisfactory response rate of over 50%. The characteristics of the respondents' businesses are shown in Table 1. The majority of respondents were owners of their business, but with a minority of managers. Thus we are fairly confident that the respondents had influence in purchasing and using ICT. Some 68% of the units were located in the countryside, with only 6% in the city centre and 10% in a suburban location. The "other" comprised airport and village hotels. Some 30% were seasonal businesses but overall, the main activity was room sales (56%), restaurant sales (30%) and bar sales (14%) respectively. Thus, in our sample, the influence of business owners in the application of ICT was well represented and we also had the basis for some useful comparisons.

Owner Status	%	Location	%	Seasonal	%	Main Activity	%
Owner	48	Country	68	Yes	30	Room Sales	56
Manager	16	City	06			Bar Sales	14

		centre					
Partner	22	Suburban	10	No	70	Restaurant Sales	30
Other	14	Other	16				

Table 1: The Businesses (n: 49, some respondents had several functions)

ICT was used by most of our sample, confirming earlier findings about the pervasion of ICT. However we noted that of the business owners, 90% used extensive (great majority of functions) or adequate (majority of functions) ICT facilities. This can be compared to the 55% and 75% in the other categories of managers and partners respectively. This suggests that since owners were likely to have more discretionary control (compared with management) over the use of ICT, those owners favoured the use of ICT. Moreover, since over 92% of these properties were small hotels (i.e. they had less than 21 bedrooms; visit scotland;.com, 2005) this may suggest that even when the chain of command is short, as in small owner run hotels, that ICT is seen as valuable. This finding thus contradicts our earlier point about ICT intruding upon a personal style of management. Similarly, 67.3% of the hotels were country hotels with mainly transient (tourist) custom rather than business tourists. It can be argued that the business market should be expected to require more ICT, because of the short time booking horizon and short periods of residence. Tourists have longer booking horizons, stay for longer (Abbot and Lewry, 1999), and are less likely to need the immediacy of ICT. Yet our data show that this is not the case, implying that ICT must have other benefits for the tourist-orientated establishments.

When we consider the extent of ICT use (see Figure 1) we found that 26% of the sample had extensive use, with 58% adequate and 16% limited or none. This figure is striking when we examine use in country locations; noting that most were country hotels, that the majority of these used either extensive or adequate levels of ICT. Only two rural respondents stated they

did not use ICT and this was because they had just bought the hotel, but intended to use it in the future.

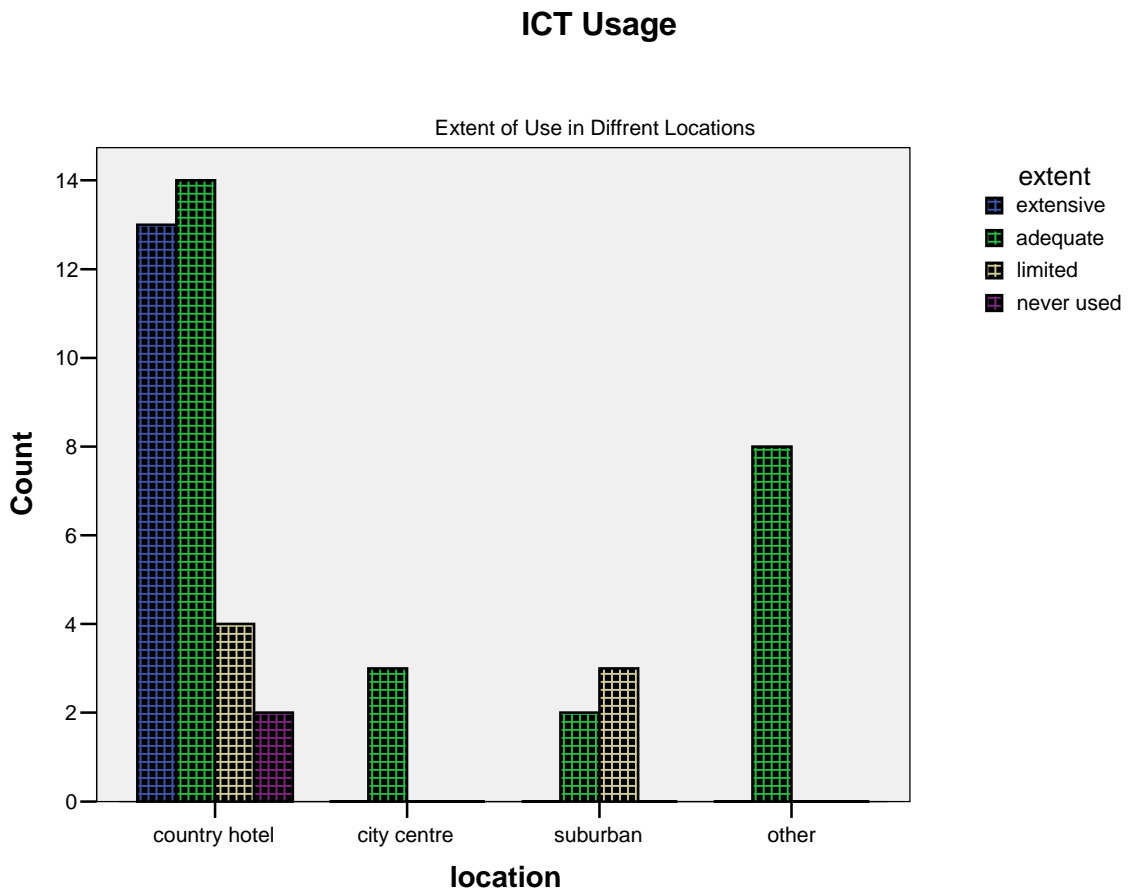


Figure 1

As Table 2 shows the main function carried out was Management (74%), followed closely by Reservations/Front office and Back Office functions at 68%. Some 60% carried out Sales and Marketing functions. These may have included database management, but was more likely to be producing promotional material. The most important advantage of using computers reported by our respondents was “providing effective information”, followed by “service

quality improvement”. “Motivating employees” was ranked at number 9, just ahead of “other categories”. These advantages reported were very different from those of the Spanish study by Camison (2000).

Table 2: The applications of Computers

Extent of Use	%	Functions Performed	%	Important Uses	
Extensive (Great Majority Of Functions)	26	Management	74	Provides Effective Information	1
Adequate Majority	58	Reservations/Front Office	68	Service Quality Improvement	2
Limited (Minority)	14	Back Office	68	Improves Productivity	3
None	02	Sales and Marketing	60	Agile Management	4
		Food and Beverage Sales	36	Improved Customer Care	5
		Other	20	Improves Control	6
				Image Improvement	7
				Saves Money	8
				Motivates Employees	9
				Other	10

We had wondered if the size of the establishment affected the use of ICT, based on the assumption that larger places may have a more “professional” approach. However, all the very small hotels (<10) rooms used it with an equal distribution across the extent of use. All hotels with 10- 21 bedrooms had adequate or extensive use. However all the hotels with between 22 and 30 rooms had extensive use. It seems therefore that ICT is pervasive without any distinctive size impact. Respondents’ observations about the benefits included, “*Cuts down paper trail, and gives immediate bookings with immediate confirmation*”; “*Perfect for record keeping facility and development, related to legal requirements including auditing and attention to demand and sales trends*”; “*A basic requirement*”. A large number commented that record keeping was facilitated by the computer. Moreover, several respondents sent documents to auditors and customers by email.

Are they using ICT and the internet specifically to help and improve supply side and demand side functions, and if so in what ways?

Interestingly, some 50% of the smaller country hotels used ICT for reservations. These hotels are likely to have a much more predictable and manageable reservations in the form of groups, longer time horizons and longer stays (Abbot and Lewry, 1999). It appears that the use of sophisticated systems indicates a genuine embedding of ICT. However, we did note some differences in the functions of ICT applications. All the larger hotels (>21 rooms) used ICT for “Management” and the extent of this use varied directly with the size of the unit, with the smaller units using it least for Management. Moreover, none identified “Supply” as one of the “other” functions carried out using ICT. Larger hotels ranked "image" much higher than smaller hotels who considered “agile management” as extremely important. Therefore, we see quite a flexible approach to ICT use. The control functions of management are associated more with size, perhaps simply reflecting more complex management structures. The notion of agility in management does seem to run counter to the argument that ICT could impose

rigidity, so it was intriguing that this use was manifest in the smaller businesses. As one respondent put it “*Allows for greater flexibility and creativity.*” Another commented, “*allows you to adapt easily, with easy cheap upgrades.*” It seems that the efficiency of ICT, which we had originally envisaged to impact as a routinisation, works differently. Freedom and flexibility are achieved at a higher level of management activity, because of the time saved in completing functions that are more basic. Thus, it was clear that they were using ICT extensively across all size and types of hotel and across all functions. There was extensive use for the “demand” led functions but little evidence of using ICT for “supply”.

Are they using, and in what ways, ICT to overcome the disadvantages of distance to bridge place, space and time?

The next area we considered was the “connectivity”, the communication and linking benefits of ICT that is directly related to the issue of rural remoteness. We looked at two categories of connectivity; local links and agency links. Local links were links related to the specific area. For example, one of our respondents’ hotel was close to a gliding club and on his website he had a direct link to the local club. These sorts of links may be very useful for marketing, in that they relate the place to local activities- the promotion of place. We found that some 50% of rural respondents used these connections, compared to less than 20% of city respondents. Amongst the open-ended comments about this aspect was “*Attract more customers and cheap image improvement*”; “*Opens up new markets especially foreign tourists and allows for specific targeting*”; “*links to other sites increases business potential*”. For booking agency linkages, we had expected there to be little difference related to location because in the hospitality trade the use of agencies is widespread. In fact, only some 55% of our rural respondents used agencies in this way and only the larger hotels used real time interaction. One respondent told us that he felt he needed to be in control of bookings.

Many of our survey respondents commented that ICT was essential in a peripheral location. It was necessary because of the need to remain competitive and to attract and manage visitors. More general comments included, *“joins communities together”* and *“allows peripheral users into world markets, a basic requirement cannot operate without it”*. Our survey findings thus show that there is a strong awareness of the benefits of ICT in overcoming distance. Moreover, there is considerable evidence to show that even the smallest establishments were using ICT in this way. What was surprising were the extent of use and the sophistication of the control and management type of ICT applications. Thus we can conclude that most of our respondents were using ICT effectively and had a clear awareness of the advantages for businesses, almost irrespective of establishment size. They recognised and acted upon the benefits of overcoming rural location. These results made clear that they were using ICT to overcome the disadvantages of distance to bridge place, space and time.

FINDINGS- INTERVIEWS

The second part of our study was used to explore in depth the interesting aspects indicated by the survey data, and to discover the use of any innovative practices. The questionnaires were useful for answering the first three questions, and made it clear that the sample had extensive use of the internet for internal management and an electronic presence on the internet with the potential to subscribe to practices that are more sophisticated. However, we felt that the research could investigate more complicated practices by using more in-depth interviews to address issues which had either been signalled by the questionnaire data or were suited to exploring only by interview:

We interviewed 10 respondents who were all owners of their hotels, see Table 3 below, the table includes characteristics of the units and a grading level related to the analysis of the buy

and sell internet development within each unit based on the theoretical models discussed earlier.

No of Rooms	Rating	Location	% Bookings by ICT	Broadband use	Seasonal	Buy Level	Sell Level
29	3 star	Country	20%	No	No	2	2
26	3 star	Village	30%	Yes	No	2	3
20	3 star	Country	20%	Yes*	No	2	3
12	2 star	Village	15%	No	No	2	2
14	2 star	Country	15%	Yes	No	2	2
2-5	None	Village	20%	Yes	No	2	2
20	3 star	Country	30%	Yes	No	2	3
12	3 star	Village	15%	Yes	No	2	3
20	3 star	Village	20%	Yes	No	2	3
2	None	Country	50%	Yes*	Yes	2	2

Table 3

BROAD ISSUES

Most of the units had and used broadband, Asymmetric Digital Subscriber Line , (ADSL), although two of the country hotels took advantage of specific circumstances to put it in place.(These related to a special research project, and a local exchange being developed). Only the smallest unit was seasonal. There has been a good uptake of Broadband in the area, which suggests that ICT may have helped to overcome problems associated with seasonality.

All had reached level two on the “buy” or “supply” side using the internet for the selection of competing suppliers by using one or all of the sources for supply identified in the model. None considered that they had suffered any disadvantage in supply, whilst some used the internet only for ordering large and capital equipment. One respondent interestingly suggested that they felt that “using ICT for sophisticated “supply” functions should be driven by the suppliers” and that this had not taken place. The majority were also advanced in the “demand” side. . One respondent told us how his internet presence had produced bookings outside the season. Indeed, all the respondents had reached the “informational” stage (2) on the “sell” side of the model discussed earlier, and were using the internet for promotion and attracting guests. Of these, six used IT specialists for developing and maintaining their websites and eight of the ten used intermediaries for booking. Five respondents had reached the “transactional” stage three, with three using intermediaries for real time booking over the internet and two used their own site for real time bookings. This finding clearly contradicts (Reynolds, 2000) findings and shows that our sample has coped well with disintermediation and are using the internet very effectively. Nonetheless our sample was undoubtedly biased. The enthusiastic and loquacious interviewees were aficionados, almost in love with the technology! However, they were by no means “anoraks” or computer “geeks”. What seemed to drive their use of ICT was a realisation of the advantages, *“I recognised the potential for my hotel immediately and have been building my site for years.”* What shone through the interviews was their enjoyment of the benefits of ICT, *“international custom and an excellent rating from all customer rating agencies used for marketing”*.

It was clear from the results that there was a focus on the “demand” use of ICT and no real identification of much progress towards using ICT for “supply” apart from sourcing and purchasing capital items. In terms of our concerns about reducing the degree of personal service, we found that on the contrary, most felt that it helped with personal service, especially those that had achieved “relational” level. They used innovative practices including; gathering data about their guests that ensured accurate data processing and guest

management; bringing long-term benefits and easier experiences for the customer (Martin, 2004). Those with broadband noted its convenience as it allowed separate phone communication for guests and down loading of information. In particular, they told us about how agencies facilitated reservations and bookings to enable a 24-hour service available from home and abroad. It also allowed them to access information on the internet; but the use of email also facilitated holding records and building relationships, trust and affirmation. Nonetheless, the smaller hotels were very concerned about retaining control, “*scared of technology and losing control*”, said one respondent. Most smaller hotels were mainly “informational” and carried out minimum agency or internet booking because this “*removed the chance of double bookings and inaccurate bookings*”. One of our respondents was concerned about how ICT seemed to be beginning to shape the future. He told us “*a computer cannot plant a cabbage; it cannot feed you or produce food.*” By that he was arguing that we still, ultimately, need human control.

Turning to our conceptual questions about being rural and how ICT might bridge space, place and time, we found uneven effects. Interestingly the majority considered rurality gave them a distinct market advantage and employed the internet to emphasise their location and rurality. “*Allows the customer to link into values surrounding woodland bliss, specific of space and place*”, said one of the interviewees. There was, however a clear indication that they were short of staff and had trouble attracting staff to work in the rural location. In general, new staff were attracted through internet agencies and recommendations. The majority had links to other sites in their locality to strengthen and promote the particular place. Examples of related activities included hunting, shooting, fishing, riding and gliding. In some instances there was a strong relationship with some use of reciprocal discounts and the bundling of products, thus capturing some spatial advantage. None had reciprocal arrangements to deal with over booking with other hotels. ICT was seen as particularly useful as a connecting mechanism, “*ICT has the potential to join communities and commerce together in such a vast area as Grampian*”... “*work together to increase the Tourist Trade.*” Here we do see the recognition

of the consequences of peripherality, but note how the respondents saw ICT as a way of reducing its impact. Being rural has influenced beneficially by attracting customers and ICT has been used to promote the notion of the local rural place. In particular the links between different tourist sites for the enjoyment of rurality, for example fishing or gliding as things to do, was promoted as rural time and the hotels themselves as rural places to stay. Less positively, the respondents commented on how isolation made staff recruitment more difficult, but again were able to lessen the impact by the power of “globalisation”; making a local presence global, by employing the distance reducing effects of the internet.

What innovative practices, if any, have they developed using ICT?

The growth and use of ICT and the incorporation of innovative practices was largely on the owners’ own initiative. What came across in the interviews with the ICT enthusiasts was a real understanding of their customers and markets. One respondent, who enjoyed excellent occupancy rates, told us how he used links to attract North American guests. He targeted people over 50 and believed that he knew how they used search engines. Thus key words such as, “highland and games”, bright green text on yellow backing, and even a page that reads like a book for “over 50’s”, were all used in his website. He had a clear, but premium price policy with no discounting and a well thought out booking and confirmation process that allowed credit card payment. His site enjoyed a large number of hits with a 50% conversion rate that led to almost 80% seasonal occupancy. We were also told about potential guests who rang up after looking at the website, *“if they ask the price, they do not book, as we do not offer discounts”*. This comment appeared to show a deep understanding of customer motivation. Moreover, we can also see how the initial link is developed, *“I tell them to stay at least 2 nights or even a week, because unlike America we have 40 attractions in 100 miles and I tell them what they are going to miss.”*

In many ways this reflects Morrison's (2000) comment that each entrepreneur brings their own attitudes and characteristics. We also found little evidence of any formal ICT training. All the owners and managers had been in post or had worked in the industry for a considerable time, but were self taught and had no formal training in ICT. One hotel had received a small grant from the local Enterprise Agency to buy new equipment and another owner, in his capacity as a member of a National Association, had received £3000 pump priming from the Scottish Tourist Board (STB). He had also recently acquired "Challenge Funding" for an electronic marketing initiative on sixty/fifty basis. Some respondents knew that there was training provided on-line for ICT use for "PAYE" and "VAT". One had some training in accounting procedures from his software provider. None of our respondents was aware that there was training available for web-based activities and none had sought advice from any Agency or was aware of private or public internet forums (Galloway, Mochrie and Deakins, 2004).

However, not everything about ICT and communication was seen as beneficial. One respondent told us about some agency web sites that encouraged customers to comment on the levels of satisfaction. He explained that almost every booking agency had a comprehensive rating systems. These systems ranged from a "Trip Advisor", which was an independent reviewer and booking agent, (with links to and from most other major agencies) and had more than 2.9 million hotel reviews with a sophisticated grading system; to "Active Hotels" with more than 220,000 reviews and a simple "smiley/sad face" and other evaluation systems. These reviewers were brutally honest, but most of our sampled hotels rated highly. However, some hotels in Grampian had suffered from very negative ratings. One set of comments came from a group of 15 golfers who had spent more than £1500 in one evening; a party member was thrown out for swearing, the whole party then quit their rooms and a number of "locals" followed suit. Understandably they rated the establishment very poorly. The ease, convenience and speed of making such ratings have obvious implications for the image of the establishment. They are updated regularly, but can have very negative, or

positive, consequences on bookings and occupancy levels. They are difficult to monitor and being public and on the “web”, the hotelier has no influence or control over content apart from leaving the agency who hosts that particular website.

CONCLUSIONS

ICT is now well embedded in the smaller rural hospitality businesses. The majority of our survey respondents used ICT to improve the effectiveness of their operation across a very wide range of functions. Whilst there was a slight difference by the size of the establishment in the type of ICT applications employed, there was sound evidence of the recognition of the importance of ICT as a marketing tool. However, few had recognised its importance as a supply tool, (Milne et al., 2005). The larger establishments appeared to use more managerial control functions, but this may simply reflect the more complex needs of the larger operations. It seems then, that ICT offers rural businesses great convenience.

Amongst our interviewees, some of the participants were very enthusiastic and had a real knowledge of operating in “cyber space”. They seemed to have used ICT to improve their businesses, with increased occupancy, reduction of seasonal trends and a real understanding of the advantages of the internet for their business by attracting guests through promoting the uniqueness of their establishments and location.

This focus was on marketing; as these enthusiasts seemed to be real “sellers” and had grasped the opportunity to extend their selling skills into ICT. There was however limited attention to the supply side. For whatever reasons, enhancing supply functions held little appeal. Our respondents had not been encouraged to shift to ICT by their suppliers and many respondents valued real, rather than virtual contact. Nonetheless, they demonstrated sound knowledge of how to operate their sites and made excellent use of third party intermediaries and links; this

was reflected in the number of bookings taken through ICT from a wide range of home and foreign markets. They recognised the “perishability” of a room sale and the effectiveness of ICT in selling and thus of achieving targets. There was also evidence of more effective record keeping and applications used to improve personal service. This may be useful for the future as aspects of compliance and record keeping becoming even more necessary. There was no evidence of any problems with security or safety of bookings, apart from the fear of “losing control” manifest in some small unit owners.

We were surprised to note that, rather than been seen as hindering personal service, where ICT might “impersonalise” service, our interview respondents used ICT to enhance personal service. They were aware of, and concerned about, the danger of allowing the agencies ICT systems to take over “control” of their booking systems, but had balanced this with the recognition of the benefits and extensive use of intermediaries where they considered them appropriate. Overall the picture we gathered was one of sensible, informed and often quite sophisticated and innovative uses of ICT. For the rural aspects, ICT had enabled the proprietors to overcome some of the impact of distance. Moreover, they had employed it to advantage in presenting images of rural places and conveying the message of “being there” as effectively as possible. It could be argued that their innovative use had made their customers take the step of actually committing themselves and making the journey and not just thinking about it. (A study of occupancy levels and innovative use of ICT could corroborate this). All of our respondents were aware of the importance of ICT in a peripheral area and saw it as a means to add value and gain a competitive advantage. As Deakins et al (2003) had noted, ICT, as a particular innovation, has been taken up by rural firms. In entrepreneurial terms, our interview respondents were seen to acting entrepreneurially; overcoming the problems associated with being rural by the innovative use of ICT across many functions. This innovative use may have been generated through interest and experimentation.

We believe that there are some policy implications from our study. We noted the lack of training or at least the lack of awareness of training on ICT. Although this did not seem to affect our sample, we suspect some bias in our respondents. Moreover, as Ramsay et al (2003, p261) contend it is not just about raising awareness of the potential and benefits of ICT “but by raising a business awareness and increasing business skills in general as any problems will not just be reduced by increasing the technological competence of small businesses”. Thus there may need to be an improvement in the accessibility and promotion of ICT awareness and training. Moreover, each individual firm needs to be recognised in the context of their size, experience and aspirations. Consequently generic support may not realise the uniqueness of individuals and the ability of the internet to allow them to differentiate their product. The concern about the availability and transfer rate of ISDN and Broadband (ADSL) in rural areas that had deterred users as identified by Smyth et al (2001) was not confirmed in the study.

A particular strength of our respondents’ use of ICT was for “connectivity” and the ability to link to and with other local attractions. We saw this as working the rural. They used ICT to link into other rural places and thus established a particular sense of place. Although we had not found any direct reference to the “rural”, we did see how they worked to identify with rural activities. This synergy in marketing and the promotion of place carried benefits for all the participants. This suggests that this relatively cheap and effective form of developing the locality should be actively encouraged. Finally, hotel owners may benefit from ICT networking more closely with other similar establishments.

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