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An E-commerce Framework for Small Tourism Enterprises in Developing Countries

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Statement of Originality

I, Stan Stergios Karanasios, declare that the PhD thesis entitled An E-commerce Framework for Small Tourism Enterprises in Developing Countries is no more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature: 

Date: 11-January-2008

Abstract

For sometime there has been a push for developing countries to adopt information and communication technologies (ICTs) as a pathway to economic development. However, to date, the widespread adoption and use of ICTs in these countries has been sluggish. This is especially true amongst small enterprises, which play a major economic role in developing countries.

In the context of developed countries a number of benefits have been linked with the use of the ICTs amongst large, medium, and small tourism enterprises (STEs). This suggests that STEs in developing nations can also derive some benefit from the use of ICTs. However, entrepreneurs in developing countries are hindered by the underlying environmental limitations that characterise these countries (such as the inadequate and unreliable infrastructure, high cost of ICTs, and unstable political environment). This suggests that a tool for STEs that allows them to assess their business environment by reflecting inwards and outwards of the business to make informed decisions on e-commerce would be of use.

The purpose of this thesis was to develop an e-readiness framework for STEs in developing countries. The threshold of twenty employees was used to classify businesses as 'small'. In developing the framework, the intention was to take into account the specific characteristics of small businesses in developing countries.

The study was carried out across two major phases. Phase One involved an online focus group with a panel of experts. The purpose of this phase was to take the framework that was developed based on a literature review and present it to a group of experts and use their comments to refine it. After making changes to the framework the researcher set out to refine it further using an investigation of actual STEs in two developing countries. In total twenty-six tourism operators participated in the study. In addition to discussions with the tourism operators this phase also involved examining their online activities, observations, and an investigation of the country e-commerce environment.

The final framework, produced as a result of thorough literature review and two data collection phases, has been placed through rigour at the conceptual design stage by academics and at the applied level with actual by STEs. The resultant framework identifies the most relevant determinants of e-readiness and identifies how STEs may exploit e-commerce.

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Chapter One

Introduction

1 Introduction

The purpose of this thesis is to develop an e-readiness framework for STEs in developing countries. The framework aims to provide a planning tool that STEs can adopt to systematically audit their business environment and make decisions about electronic commerce (e-commerce). The study was carried out across two data collection phases. This introduction briefly describes the contents of this thesis.

1.1 The problem and its context

There is growing impetus in the world for developing countries to adopt information and communication technologies (ICTs) as a pathway to economic development. However, to date, the widespread adoption and use of ICTs in these countries has been slow, although there is some evidence that ICT diffusion and e-commerce can result in widespread benefits (refer section 2.1). This is especially true amongst small enterprises, which play a major economic role in developing countries.

In the context of developed countries a number of benefits have been linked with Internet use amongst large, medium, and small tourism enterprises. This suggests that small tourism operators in developing nations can also derive some benefits from the use of ICTs. However, entrepreneurs in developing countries are hindered by the underlying environmental limitations that characterise these countries (such as the inadequate and unreliable infrastructure, high cost of ICTs, and unstable political environment). This suggests that a tool for STEs that allows them to assess their business environment by reflecting inwards and outwards of the business to make informed decisions on e-commerce would be of use.

The framework has two purposes. The first is to identify the most relevant determinants of Internet or e-readiness, and to act as an information gathering or planning mechanism that can be used by STEs to assess their e-readiness. The second purpose is to suggest ways that STEs can exploit the Internet based on their level of e-readiness.

1.2 The literature review

The literature review is organised into two main sections. The first section aims to place into context the environment in which the study took place. It begins with a discussion of ICTs in developing countries and the discourse surrounding the digital divide. A discussion of small businesses and their place in developing countries is then presented. It then moves on to more specific matters such as STEs and e-commerce in developing countries. By examining STEs and e-commerce in the context of developing countries, this thesis draws on theories and concepts from a wide variety of fields. Thus the literature review undertakes an exploration of a number of major areas of interest and builds on the theoretical relationships between them. These areas are small business (in particular STEs), e-commerce and developing countries. Therefore, the review of the literature explores the subjects in relationship to one another*: e-commerce and*

developing countries, small (tourism) enterprises and developing countries, *small (tourism) enterprises and e-commerce,* and finally *developing countries and small enterprise e-commerce*.

The second part of the literature review discusses the theoretical foundations that lie behind the development of the initial version of the framework. It begins by reviewing e-readiness tools. The purpose of this discussion is to describe the different types of readiness tools available and establish the need to focus on small business. Next the discussion moves onto exploring the theoretical foundations behind the e-readiness component of the study and draws on a number of examples from literature to develop the first conceptual framework. This section also discusses how the Internet may be exploited based on the different levels of e-readiness. The final section of this chapter examines the implementation issues that STEs need to consider before actually adopting e-commerce. Again, many examples are drawn from the literature. Finally, the initial conceptual framework is proposed and discussed.

1.3 The study

Two phases were used to develop the framework. Each phase is discussed briefly here.

1.3.1 Phase One: Expert panel

Phase One involved refining the initial framework using an expert panel. This entailed taking the framework that was developed from the literature and presenting it to a panel of experts. Small businesses themselves were not considered, as they were included in the second data collection phase of the study. An Internet based discussion was used as the vehicle for conducting the panel discussion. A refined framework was produced as a result of this phase of the study.

1.3.2 Phase Two: Field research

The aim of this phase was to further refine the framework from Phase One. Field research was conducted in Malaysia and Ecuador. In total, twenty-six in-depth field interviews were conducted with STEs. Based on the data gathered from the field interviews a final version of the framework was developed.

1.4 What is not covered

This study does not cover:

- The point of view of STEs other than small accommodation and tour operators.
- The point of view of STEs that have not adopted e-commerce.

- Matters related to security and legal issues, such as laws of copyright, contract, and so forth. Except where they apply specifically to the areas covered in this thesis.

1.5 Importance of the study

Many observers agree that small businesses represent an important part of the economy and play a major role in development (Samitas & Kenourgios 2005; Bannock 2005; Hausman 2005; Mead & Liedholm 1998). STEs in particular have been recognised as the (numerically) dominant form of tourism business at the destination level and the backbone of the many tourism destinations (Purcell, Toland & Huff 2004; Gartner 2004; Gammack et al. 2004).

Previous research has shown that small enterprises in developing countries face many challenges concerning e-commerce adoption and readiness (Murelli & Okot-Uma 2002; Salman 2004; Jennex, Amoroso & Adelakun 2004). At the same time there are a number of benefits associated with e-commerce adoption for even tiny tourism businesses. Some of the benefits include the potential to market to a global audience, reduced communications and advertising costs, and the ability to create alternative distribution channels (Buhalis 1999; Purcell, Toland & Huff 2004; Gammack et al. 2004). Nevertheless, as will be described in this thesis, many small enterprises struggle with even basic Internet adoption, and the use of the e-commerce amongst small enterprises is the exception rather than the norm.

Although there have been a number of studies focusing on ICTs and businesses, there is a paucity of research concerning small enterprises in developing countries. This is particularly true when narrowed down to a particular industry. In fact, despite their importance, STEs are under researched (Thomas 2000). Therefore this thesis is unique and fills a void in existing literature.

Chapter Two

Literature Review: Contemporary Issues

2 Literature review: contemporary issues

By examining STEs (small tourism enterprises) and e-commerce in the context of developing countries, this study draws on theories and concepts from a wide variety of fields. This thesis begins with an exploration of the major areas of interest and builds on the relationships between them. These areas are small enterprises (in particular STEs), ICTs (in particular the Internet and e-commerce), tourism, and developing nations. Therefore, the review of the literature explores these subjects in relation to one another. This chapter is organised into four sections. Each section discusses various contemporary issues concerning the topic of this study. Section one begins by defining and discussing developing countries. It then discusses ICTs in developing countries and the digital divide. There are many schools of thought on the use and impact of ICTs in developing countries. This section attempts to cover some of these views and to place them in context of the study. The overarching aim is to describe to the reader the ICT climate in developing countries. Section two brings small enterprises into the picture. It discusses their role in developing economies. A discussion is presented on the definition of a small business. Some of their inherent characteristics and their relevance in this study are also discussed. Section three builds on the previous two sections by discussing e-commerce as a subset of ICTs. E-commerce is discussed generally and then in the context of small businesses in developing countries. The fourth section introduces the connection between e-commerce and tourism, and discusses the relationship between these in the context of STEs in developing countries.

2.1 Developing countries and ICTs

This section will discuss developing countries and ICTs, in particular the Internet. It aims to set the scene for the investigation described in this thesis by introducing one of the overarching themes: developing countries and ICTs.

2.1.1 What is a developing country?

> *A country that has not yet reached the stages of economic development characterized by the growth of industrialization, nor a level of national income sufficient to yield the domestic savings required to finance the investment necessary for further growth*. (Bannock, Baxter & Davis 1992 p.113)

Many terms and definitions have been used to refer to and categorise countries. Simply put, developing countries are typically countries that have not yet reached the stage of growth of industrialisation (Bannock 2005), where people live on far less money, and often lack basic public services compared to highly industrialised countries.

At the end of the Cold War, the terms First World and Third World[1] were used to distinguish between industrialised and unindustrialised countries. More recently, the term North and South have been used to categorise countries. This refers to the fact that all countries above the 13th parallel are the most advanced countries while those below are typically poorer countries (except for Australia and New Zealand) (Murelli & Okot-Uma 2002). Nevertheless, the most commonly used term is that of 'developed' and 'developing' countries. A simple way to make the distinction between developing and developed countries is to consider the member states of the Organisation for Economic Cooperation and Development (OECD) as developed countries, and the remaining nations of the world as developing. The World Bank (www.worldbank.org) defines developing countries as low- and middle-income countries in which most people have a lower standard of living with access to fewer goods and services than do most people in high-income countries. Using this approach economies are divided using four income groups, they are: low-income, US$ 825 or less; lower-middle income, US$ 826 - US$ 3,255; upper middle-income, US$ 3,256 - US$ 10,065; and high-income, US$ 10,066 or more. Low-income and middle-income economies are typically considered developing economies. According to the World Bank there are about 125 developing countries with populations over one million, and their total population is nearly five billion. Although, this classification is broad, it does provide a convenient way of categorising countries and is the most widely used comparative measurement of economic development. This definition does not contend that all economies in these groups are experiencing similar stages development or that other economies have reached a preferred or final stage of development. Moreover, classification by income does not necessarily reflect the status of development.

Although this thesis will often refer to developing countries as a similar group of countries, it is important to remember that these countries are heterogeneous (Karake-Shalhoub & Al Qasimi 2006; Austin 1990; Sadowsky 1993; MacLean et al. 2002). Like any definition used to classify countries, the use of the term 'developing countries' (whether the World Bank or non-OECD definition), encompasses a broad range of nations and cannot capture the numerous distinctions between regions, governments, economic circumstances, and range of other factors. Even within a country and between different groups of people there often exists a range of differences in economic circumstances, access to services and ICTs. Therefore, any general comment made about a developing country can perhaps be contradicted by a specific example (Sadowsky 1993). Nevertheless, concerning this thesis most countries face some common challenges when adopting ICTs (Salman 2004).

2.1.2 ICTs as a panacea?

Over the last ten years there has been growing impetus amongst development experts and aid organisations concerning the role of ICTs and the Internet in particular in development. In fact, issues relating to the

[1] A term used to refer to countries that were about to or had achieved release from European colonalization after World War 2.

diffusion of ICTs and the digital divide continue to attract attention in developing (Fuchs & Horak 2006; Hinson & Sorensen 2006) as well as some of the most affluent countries (Roe 2006).

On one side, observers advocate that ICTs may act as an engine of growth, permitting developing countries to leapfrog stages of development and enter the information economy (Indjikian & Siegel 2005). Raisinghani et al. (2002 p.718) went so far as to suggest "*the expansion of electronic commerce to developing countries will automatically enable their overall economy"* and that it is vital that these countries undertake ICT development to be included in a constantly growing global market. Although there is little evidence to suggest that e-commerce or ICTs for that matter can automatically enable an economy, there is some indication that effective ICT strategies can lead to economic growth (Indjikian & Siegel 2005). For instance, in countries such as China and Malaysia policy makers considered ICT development as a critical ingredient of economic progress (Quan, Hu & Wang 2005; Clark 2000). In China's case, recent economic growth has suggested this approach has paid dividends (Quan, Hu & Wang 2005). While Malaysia's ICT plan has been described as one of the most aggressive in the world (Ratnathicam 2002), and is an essential part of its strategy of becoming a knowledge-based economy and achieving developed country status by 2020 (Ramasamy, Chakrabarty & Cheah 2004).

However, some observers disagree, arguing that while ICTs can facilitate development it can also create a divide between those who have access to ICTs and those that do not (Mbambo & Cronje 2002; Sharma & Gupta 2003). In India, for example, despite the massive growth in ICTs, a concern is it has done little to diminish poverty in what has been described as the highest concentration of poverty in the world (Abhilash 2002; Cullen 2001). In fact, despite India's reputation in the IT industry, there are many underlying telecommunication infrastructure problems and Internet penetration remains low (Salman 2004).

Daly (2000) points out some of the potential drawbacks of ICTs. These include the threat of the 'brain drain' (where skilled workers -such as programmers and engineers- depart to work for higher wages abroad), exploitation by more powerful countries, undesired transfer of cultures, and capital flight (where consumer spending is consumed on imported products). On the other hand, Daly (2000) continues to say the impact of non-adoption may be even more significant.

Ultimately most observers agree that while ICTs are not necessarily a panacea for the problems of developing countries, they present an invaluable opportunity for developing countries to invigorate and sustain economic growth (Mujahid 2002; UNCTAD 2003; Kamel & Hussein 2002; Daly 2000; Mehta & Kalra 2006). In other words, developing countries have more to gain than to lose by utilising ICTs. The benefits that can be experienced range from reducing poverty, market growth, helping enterprises cut costs and reach wider markets, and improved access to health, governmental, financial and educational services (Clark 2000; Bedi 1999; UNCTAD 2003; Cecchini & Scott 2003; Daly 2000; Vinaja 2003).

2.1.3 The digital divide

> *The digital divide is a phenomenon linked not only to the topic of access to the Internet, but also to the one of usage and usage benefit.* (Fuchs & Horak 2006 p.1)

The phrase the 'digital divide' refers to the unequal access of ICTs between countries, regions, and even social groups within countries (Tigre & O'Connor 2002). It is not a situation that is limited to developing countries, as many wealthy nations also suffer from some form of the digital divide (Roe 2006). The digital divide is a complex, multidimensional concept. While some countries are attempting to narrow the digital divide, other countries are placing barriers in the way of ICT adoption, resulting in its deepening (Tanburn & Singh 2001). There are many social, political, and economic issues that contribute to the gap in the use of ICTs in developing as well as developed countries. These issues are not black and white, and are often intertwined. Even within countries there exists a divide, as there often is a rural and urban divide and a divide between high and low-income earners (Mehta & Kalra 2006; Purcell, Toland & Huff 2004).

Before discussing some of the obstacles faced by developing nations in bridging the digital divide, a brief discussion into the number of Internet users in developed compared with developing countries is provided. Table 1 and Table 2 illustrate the number of Internet users and hosts (a computer connected to the network) in developed and developing countries. Whilst the measurement of Internet users and hosts is not recognised as the most accurate measurement, it is used here to simply illustrate the disparity between the two groups of countries. For the present, developing countries will continue to lag behind developed countries in ICT adoption and use (Dutta 2002). However, it is expected that by 2010, Internet users in developing countries may comprise 50 percent of the world's total. Table 1 and Table 2 illustrate precisely this phenomenon. The tables indicate that between 2000 and 2002 the developing world showed the largest percentage increase in Internet users and hosts. This is largely because of their demographic patterns (younger populations and faster overall population growth) (UNCTAD 2003).

Table 1: Hosts per 10,000 people by region, 2000 – 2002

	2002	2001	2000	% Change 2001-2002	% Change 2000-2001
Developing countries	15	15	25	-0.15	-40.96
Developed countries	1124	1067	855	5.42	24.77

Source: Adapted from UNCTAD 2003, Table 1.6, p.9

Table 2: Internet users per 10,000 people by region, 2000 – 2002

	2002	2001	2000	% Change 2001-2002	% Change 2000-2001
Developing countries	391	280	195	39.67	43.59
Developed countries	3262	2914	2416	11.94	20.61

Source: Adapted from UNCTAD 2003, Table 1.4, p.5-7

2.1.4 Reasons for the divide

As the theme of the study is STE e-readiness in developing countries it is useful to discuss some of the reasons for the digital divide. There are many factors connected to the slow diffusion of ICTs and these cannot all be discussed in this section. The major factors are discussed in the following paragraphs.

Low wealth of developing countries

This refers to the low of wealth of governments, low investment in the ICT infrastructure, and the low wealth of citizens in these countries to utilise the infrastructure. Many resource poor governments have not considered ICTs as a priority (because of more immediate concerns such as health, education, and infrastructure). However, this is slowly changing. For instance, recently Bangladeshi policy makers announced that ICT would receive 21 percent higher allocation in national budget (Bytes for All. 2007). On the user side, technology cost is comparatively higher in developing countries, often unreachable for the common person. Take the example of Internet costs in rural India. At the start of the millennium the cost per connection ranged from Rs 40,000 (approx US$ 1, 045) to over Rs 130,000 (approx US$ 3,484) in remote villages with rocky terrain (The Financial Express 2000). Likewise on the continent of Africa, in Mozambique and Ethiopia, monthly Internet costs equalled up to 70 percent of GDP per capita. In more developed countries like Mexico and Brazil it equalled only about five percent. However, because of the income disparity the Internet is not a disposable item for the majority of the population (Tigre & O'Connor 2002).

Lack and availability of ICTs infrastructure

The effective operation of the Internet is totally dependant on the existence of suitable telecommunications infrastructure. However, many resource poor countries have limited telecommunications networks (Murelli & Okot-Uma 2002), making Internet connectivity difficult. Even where the infrastructure is in place, there is also the problem of defective and poor quality telephone lines, resulting in lines that cannot handle data transmission (De Boer & Walbeek 1999). Some authors claim that the lack of an effective telecommunications infrastructure can be seen as an advantage because it allows developing regions to bypass current technologies and use alternative technology tailored specifically for the conditions of these countries. A few examples include Wireless Loop Technology (Gunasekaran & Harmantzis 2007; James 2002), wireless networks (Tully & Riekstins 1999; Galperin 2005), and Very Small Aperture Terminals (VSATs) (ITU 2000; Lake 2000; Sarrocco 2002). VSATs in particular have been successfully implemented in a very remote region of Sarawak in Malaysia inaccessible by road (Harris et al. 2001; Bala, Harris & Songan 2004)

It is interesting to note that the number of mobile phones (cellular phones) in developing countries often surpass that of fixed lines (for instance, in Cambodia and Uganda) (Sarrocco 2002). However, at the time of writing this thesis the development of Internet services is dependant on fixed lines (the use of mobile phones for affordable and efficient Internet access in these countries, although promising, remains a long way off).

Level of education, computer illiteracy, language and culture

In many developing countries the low level of education, low literacy rate (especially among females) (Payne 2002; UNCTAD 2003), and low level of computer literacy (De Boer & Walbeek 1999) contribute to the digital divide. With the Internet, literacy takes on greater importance, as the Internet is mostly text based (Tigre & O'Connor 2002), and typically in English. This means that language and content related barriers become an issue (De Boer & Walbeek 1999; Palmer 2000). Salman (2004) argues that these content related barriers need to be seriously addressed. For instance, China and Russia only experienced significant growth in Internet users once content was made available in Chinese and Cyrillic (Cullen 2001). More broadly, in some cases people are not even aware of the Internet. For instance, in Maracaibo City, Venezuela, Guasch and Ugas (2007) found that the main reasons why people do not use Internet is not only because of lack of access to ICTs but also because people do not even know what the Internet is.

There are also many examples of social-cultural factors that limit the diffusion of ICTs in developing countries (Pradhan 2002). In regards to Internet shopping in India for instance (where it is a social activity and personal face-to-face contact with sellers is an important part of the shopping experience) online shopping is unattractive (Hawk 2004). Van Dijk (2006) suggests that the digital divide cannot be understood without addressing socio-cultural issues such as attitudes toward technology (for instance, technophobia and computer anxiety). Along these lines, there is often a negative stigma surrounding ICTs. For instance, in Kerala, India there was the belief that IT would result in the loss of jobs (Aljifri, Pons & Collins 2003). These perceptions can lead to negative repercussions for the successful diffusion of ICTs.

Government forces and regulatory factors

Government involvement, enthusiasm and support are essential for introducing and exploiting the potential of ICTs (Sadowsky 1993). However, in the developing world the view and behaviour towards the Internet is often completely different from the developed world, limiting the level of involvement of policy makers. Some governments maintain strict control of the Internet. For instance, in China, Laos, Malaysia, Singapore, and Vietnam, censorship of the Internet exists (Murelli & Okot-Uma 2002; Singh 2000). This can affect growth (Tanburn & Singh 2001). In some Middle Eastern countries Internet activity only increased after the easing of tight state controls over telecommunications and the realisation of the linkage between telecommunications and economic growth (Palmer, 2000). While in Egypt, because of the underdeveloped telecommunications infrastructure it only became legal in 1998 for a person to own a second telephone line (Tanburn & Singh 2001). Also some governments are concerned that the rapid diffusion of ICTs has the potential to shift political power from political elites to technical specialists (Pradhan 2002). Some countries however, like Malaysia and Samoa are aggressively promoting ICT development (Purcell, Toland & Huff 2004; Ramasamy, Chakrabarty & Cheah 2004).

Regulations have an impact on the level of Internet connectivity within a country and potentially the reach of the Internet, resulting in passing on of the cost of services to end-users (Sarrocco 2002). As an example, competition in the telecommunications industry was considered unacceptable in China for economic, political, and national security reasons (Clark 2000). On the other hand, Malaysia was among the first countries in the region to privatise its government held telephone monopoly, Jabatan Tekom Malaysia

(Jussawalla 1999). As a result the Malaysian telecommunications sector has become one of the most competitive in the world (Mesher & Zajac 1997), resulting in affordable access and resulting high Internet penetration (42 percent) (ITU 2005), one of the highest penetration levels in South East Asia.

Unstable political environments also effect the diffusion of ICTs. For instance, in countries like Nepal, Sri Lanka, and Zambia conflicts and unstable political environments impact ICT development (oneworld.net 2003).

2.1.5 Bridging the digital divide

During the United Nations (UN) Millennium Summit in 2000, 147 heads of state gathered and adopted the Millennium Development Goals (MDGs) to address extreme poverty. This included addressing income poverty, hunger, disease, lack of adequate shelter and exclusion. While promoting education, gender equality, and environmental sustainability with quantitative targets set for the year 2015. One endeavour of the MDGs was to address the digital divide. For instance, MDG number eight asserts '*In cooperation with the private sector, make available the benefits of new technologies— especially information and communications technologies*' (United Nations. 2005). However, even though the MDGs focus on the bridging the digital divide, no concrete plan was set in place. In other words, the MDGs are simply the outcome of political negotiations that lack any road map to implementation. In fact, as of 2005 when the MDGs were revisited to measure the progress of achieving the goals by 2015 it was found that progress was not only sluggish but in some cases no progress had been achieved (Sachs & McArthur 2005). This suggests that there is still some work to be done to address the digital divide[2].

Fuchs and Horak (2006) discuss six potential strategies for tackling the digital divide. They are discussed briefly here.

Strategy 1: Wait and see. Allow the market to take its course and technological development will cheapen access.

Strategy 2: By entering into markets and competition, developing countries will be able leapfrog directly into information societies.

Strategy 3: Attracting foreign direct investment and capital will increase wealth for all and access in developing countries.

Strategy 4: Design technologies specifically for developing countries.

Strategy 5: Do nothing because developing countries do not need technology.

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[2] The researcher participated in a United Nations workgroup in 2006 with Michael Herrmann Economic Affairs Officer, Policy Analysis and Research Cluster Special Programme for Least Developed Countries UNCTAD as workgroup moderator. This workgroup developed a working paper that focused on shifting from the MDGs and focusing on a new development paradigm.

Strategy 6: A combined approach including the global redistribution of wealth, introducing educational and health programs, digital literacy programs, public and free access to computers and technologies, open source technologies and computers for developing nations.

After providing some discourse on the pros and cons of each of these strategies, Fuchs and Horak (2006) identify Strategy 6 as the most feasible option. They posit that the other five strategies are embodied in reductionism and are one-dimensional. Strategies 1 to 5 fail to comprehend the interconnectedness of technology access, social factors, uneven development, human rights, and global capitalism. The authors assert that the examples of Ghana and South Africa have demonstrated that neo liberal policies of liberalisation, deregulation, and privatisation of the telecommunication sector (as suggested by the Washington Consensus, structural adjustment programs of institutions like the World Bank and the International Monetary Fund[3]) have not succeeded in bridging the digital divide in Africa, as well as the global digital divide. They further posit that:

> *In order to tackle the global digital divide a fundamental redistribution of resources is needed as a pre-condition. Modern society is so rich and productive that it could easily afford a modest income, social security, literacy, and free access to computers and the Internet for all humans. If this is a real possibility, then the best and most desirable option is to realize it. But this requires a redesign of global society because the digital divide is not first of all a technological problem, but an economic, social, and political issue. The digital divide is not only a divide in the access to and benefits from technology, but it also an expression of a more general divide in wealth and power.* (Fuchs & Horak 2006 p.17)

2.1.6 Reflections on the digital divide

As observed, there are many factors contributing to the digital divide. These are more prevalent in some countries than others. Despite the digital divide there are many positive examples of ICT adoption in developing countries, and these will be discussed in specific regards to small enterprises in later sections of this thesis. The purpose of the discussion so far has been to put into context the environments in which businesses operate in developing countries. Although infrastructure issues are one of the most widely cited reasons for the digital divide, it is important to consider, that in many countries this is an area of constant change (as technology moves forward and countries invest more in infrastructure). In China for example, Efendioglu and Yip (2004) believe that in a relatively short time infrastructure will cease to be the main impediment to e-commerce development (although in 2007 this does not appear to be the case).

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[3] This was originally the development framework of liberalising, privatising and globalising, advocated by the International Monetary Fund (IMF), World Bank, and World Trade Organisation (WTO).

Importantly for this study, this discussion highlighted the difficulties surrounding ICT adoption in developing countries. What does this mean for owners of small enterprises in these countries? Austin (1990 p.29) posits that:

> *A manager must analyze systematically these environmental forces, decipher their managerial implications, and translate them into strategic decisions'…'the key to effective management in developing countries is the capacity to analyze, understand, and manage the external forces enveloping the firm'…'The manager confronts two basic questions: what to analyze in the environment and how to assess its relevance to the firms strategy*.

But how can a manager of a small business in these countries analyse the environment in a systematic manner to make decisions about e-commerce? This question will be addressed in this thesis - by developing a framework that can be used by STEs to systematically analyse the external and internal environment to make sense of the situation, and make informed decisions about e-commerce.

2.1.7 Summary of ICTs in developing countries

This section discussed the diffusion of ICTs specifically the Internet in the context of developing countries. There are a number of factors that inhibit the diffusion of ICTs in the developing world. These were summarised broadly as:

- The low wealth of developing countries.
- Inadequate and unreliable telecommunications infrastructure.
- The level of education, computer literacy, language, and culture of these countries.
- Government and regulatory factors.

Nevertheless, developing countries are showing the greatest growth in terms of the number of Internet users and hosts. The next section will discuss small business in a general sense as well as in the context of developing countries. More specifically, the following section will introduce STEs and discuss their place in developing countries.

2.2 Small enterprises

In the previous section, ICTs (in particular the Internet) were discussed in the context of developing countries. The purpose of this section is to discuss and describe small enterprises and their role in developing economies. This section begins by examining small businesses in general and then moves on to discuss them in developing countries (section 1.4.3 narrows the discussion to STEs). The characteristics of small businesses will be discussed in an effort to demonstrate that they have specialised needs. In respect to

small businesses in developing countries and e-commerce this section will highlight that their inherent imply that any move to adopt e-commerce will be faced with many challenges (this is an area that will be explored in a later section).

2.2.1 The significance and heterogeneity of small businesses

In most economies, small businesses represent an important part of the economy and play a major role in development (Bannock 2005; Mead & Liedholm 1998; Hausman 2005; Poon & Swatman 1999). This is because small and medium sized enterprises (SMEs) play a broad role in developing economies, generating employment and income. It is acknowledged that a thriving SME sector is critical in terms of the goods and services that they provide to large businesses (Dutta 1988; Kuwayama 2001). Kuwayama (2001) goes so far as to say that the SME sector may comprise over 90 percent of all enterprises and cover more than 50 percent of the employment in individual economies. In Malaysia for example, SMEs comprise of more than 90 percent of the total establishments and are seen as playing an important role as the country moves towards achieving a developed country status by 2020 (SMIDEC 2006). While in Ecuador, up to 99 percent of all private companies have no more than 50 employees (World Bank. 2000).

2.2.2 What is small?

> *Small is a relative, and not an absolute concept and where the line is drawn in the continuum of business from 'momma and poppa' shops to General Motors is inevitably arbitrary.* (Bannock 2005 p.1)

There is no single global definition of 'small business'. In fact, defining 'small business' is often a source of debate. Definitions vary based on a number of measurements, such as investment capital, total of assets, sales volume, and production capability. The most popular measurement being the number of employees (Bannock 2005; Harvie & Lee 2002; Gammack et al. 2004). For instance, the European Union (EU) classifies businesses with 10-19 employees as small, while Japan classifies such businesses as 'micro' (Costa 2001). In Vietnam a small enterprise is classified as having fewer than 30 employees and less then one billion Dong capital (US$ 62,460). Chilean small businesses are defined as having annual sales between US$ 74,550 and US$ 776,566 (and less than US$ 74,550 for micro business) (ACTETSME 2005). In Malaysia, small enterprises (within the services, primary agriculture, and ICT sectors) are those with sales turnover between RM 200,000 (US$ 54,500) and less than RM one million (US$ 272,700) or between five to 19 full-time employees, while micro enterprises have sales turnover of less than RM 200,000 (US$ 54,500) or less than five full-time employees (SMIDEC 2006). Therefore, within this thesis any reference to small business (by other authors) may range in its definition - in fact, it is even common for authors to use the term 'SME' even when specifically discussing small businesses.

To overcome the confusion surrounding the definition of small business, Hunter et al. (2005) suggests the most prevalent solution is to define early on in the research what is meant by a small business. Using this

approach, this study adopts the definition of small enterprises as any with fewer than 20 employees, which includes micro-enterprises (Burgess 2002; Collins & Karush 2004). The threshold of 20 employees has also been used by many Asia Pacific Economic Co-operation (APEC) studies and is generally applicable across all economies (Gammack et al. 2004). However, using the number of employees as the principle measurement has its issues, because it may not be reflective of the industry and there are problems surrounding the use of part-time and casual labour (Hunter, Burgess & Wenn 2005).

2.2.3 Characteristics of small businesses

The small business sector is heterogeneous therefore any attempt to categorise small businesses can be challenging. However, most small businesses share some common characteristics.

> *The argument that the small firm sector is heterogeneous does not mean that it lacks distinctive characteristics'…'The one area in which we may look for some homogeneity in small firms is their management, especially in independent owner-managed companies*. (Scott 1986 p.86)

There are a number of differences between small and large businesses. One main difference is that the role of the owner/manager has a strong influence on the direction of a business, far more than in a larger business (Poon & Huang 2004). Small businesses are typically informal and have a simple organisational structure, where decisions are made by one or two people, usually the owner or manager (Poon & Swatman 1999). This simple structure means that small businesses are more flexible and opportunistic than larger businesses and are able to offer products and services that larger ones lack the flexibility to offer (Fuller 2000; Walczuch, Van Braven & Lundgren 2000). This flexibility also means that small businesses are able to adopt and transform in an ever-changing business environment (Samitas & Kenourgios 2005) by offering a small range of products and services (Poon 2000; Poon & Swatman 1999). In general small businesses are not as well informed as larger businesses (Kuan & Chau 2001). Also, they tend to suffer from resource scarcity and face financial limitations (Hausman 2005; Jutla, Bodorik & Dhaliwal 2002; Poon & Swatman 1999; Poon 2000), as well as difficulties adopting new technology (Drew 2003). As a result very few grow to be large (UNCTAD 2001a).

Bolton (1971) and Kuwayama (2001) identify some of the distinguishing characteristics of small businesses:

- They operate with a small market share or in a niche market.
- They are usually independently owned, operated, and managed in a personalised way. Usually there is no formalised management structure. Along these lines, the principal decision-making functions rest with the owner/managers.
- They are closely controlled by owner/managers, who contribute most, if not all of the operating capital.
- They are typically independent from larger enterprises.

Sharing many characteristics with their counterparts in developed countries, small businesses in developing countries tend to be resource poor (Oyelaran-Oyeyinka & Lal 2006), have basic technology needs, are informally run (Turner 2003), are family owned and rely on family labour (Bannock 2005; Mead & Liedholm 1998; Turner 2003). They operate in niche markets and not in direct competition with larger enterprises (Bannock 2005), suffer from information scarcity and rely on informal networks for information (Duncombe & Heeks 2002; Moyi 2003). Also managerial and financial factors are linked to a high failure rate (Al-Shaikh 1998). What is different is that there are many organisational and environmental limitations, and often-turbulent political and macroeconomic circumstances. Successful business operation depends on the business culture, level of education, skills, capital availability and so forth. However, many developing countries lack these ingredients, therefore few businesses survive (Agbeibor 2006). For micro enterprises and ones located in rural areas, these problems are even more acute (Moyi 2003). Concerning globalisation, small businesses in many developing countries are unprepared and are struggling to adapt to the complex demands of the information economy as they lack the resources to take full advantage of opportunities (Chacko & Harris 2006). Montealegre (1998) reported that governments often control markets, setting prices, and controlling access to resources. He continued to say that businesses with close ties to government (typically larger enterprises) have greater power than their rivals and are able to gain control of markets. Finally, small businesses in developing countries are susceptible to economic fluctuations. For instance, many small businesses throughout South East Asia faced financial difficulties as a result of the Asian economic crisis of the 1990's (Turner 2003).

Some other characteristics of small enterprises in developing countries are:

- They often avoid any type of formal registration (Turner 2003).
- They suffer from limited markets (Matambalya & Wolf 2001).
- They face difficulties penetrating international markets (McIntyre 2003).
- They are often are susceptible to harassment from criminal gangs and corrupt institutions (McIntyre 2003; Turner 2003).
- They encounter difficulties obtaining and processing the information necessary to define their objectives and strategies (Kuwayama 2001).
- They face difficulties gaining access to qualified human resources, and use antiquated management methods making it difficult for them to adapt to a new competitive environment (Kuwayama 2001).
- The inaccessibility of small-scale entrepreneurs to market networks often drives them towards informal networks (Moyi 2003).

Small business and access to capital

Much attention has been given to the lack of access to finance experienced by small businesses in developing countries (Glinkina 2003; Gammack et al. 2004). This is often a major barrier to start-up, growth, and the adoption of new technology (Glinkina 2003; Payne 2002; Murelli & Okot-Uma 2002).

Micro financing and micro credit schemes in particular have received plenty of attention. A well-cited example is the case of Grameen Bank (Wood 2004; Tanburn & Singh 2001; Colle 2005; Andam 2003; Gammack et al. 2004; Goldstein & O'Connor 2000) in Bangladesh (an initiative that won Muhammad Yunus and the Grameen Bank the 2006 Noble Peace Prize). This initiative offers micro loans to women in poor communities for entrepreneurial activity. However, there is little evidence to suggest that these types of initiatives can stimulate entrepreneurial activity at the small business level. Glinkina (2003) describes the role of bank loans as insignificant for micro and small businesses. She argues that the main sources of funding for small business in all countries are savings, loans from relatives or friends, and income from selling their products. Bannock (2005) argues that business do not want to borrow from banks anyway because the formal sector interest rates are high (usually ten percent or more). Even when they do, monopolistic banking systems with few branches outside large towns make it very difficult. Nor do people want to save, when funds can be invested in trading activities (or animals, which are reproducible assets).

Small business policy in developing countries

Small businesses have great potential to foster economic growth and authors agree that small businesses need institutional support for their survival, particularly in the era of globalisation (Oyelaran-Oyeyinka & Lal 2006; Chyau 2005). In a United Nations Asia Pacific Development Program report Chyau (2005 p.1) wrote:

> *Most governments have policies to encourage the growth of local small- and medium-enterprises (SMEs) because they can help alleviate poverty by increasing income levels and creating jobs. As the global economy becomes increasingly reliant on ICTs to receive, process, and send out information, SMEs in developing countries should not be left behind. Otherwise, they will lose out on opportunities to integrate into the global supply chain, bid for outsourcing businesses, and increase productivity.*

Chyau (2005) asserts that the best response for governments is to support SMEs by removing constraints and creating an enabling environment. Some policies to encourage the growth of SMEs include (Chyau 2005):

- Simplify registration and other legal processes.
- Create incubators and science parks.
- Develop business skills education.
- Provide businesses with consulting services.
- Provide SME financing.
- Help create SME linkages with larger companies.
- Implement favourable tax and trade policies.

2.2.4 Small tourism enterprises

The vast majority of tourism enterprises around the globe can be classified as small and medium-sized (SMTEs) (Buhalis 1998; Liu 2000; Gammack et al. 2004). These enterprises are the essence of what creates a destination and a visitor's experience (Gammack et al. 2004). Most SMTEs can be classified as micro enterprises, as they generally have a small number of employees (less than five). (Hall & Rusher 2004; Gammack et al. 2004)

Tourism is an industry that is relatively easy to break into and does not require specific previous experience or a high level of education (Getz & Carlsen 2005; Morrison & King 2003; Lerner & Haber 2001). In fact, many entrepreneurs, particularly sole proprietors and families are drawn to tourism for lifestyle reasons. However, in truth the perceived lifestyle of the tourism industry rarely becomes reality with many businesses suffering from financial and resource poverty (Morrison & King 2003). As already observed, this is common amongst small businesses.

In developing countries small businesses represent the dominant form of tourism business and are usually the backbone of the tourism destination (Gartner 2004; Purcell, Toland & Huff 2004). However, STEs in developing nations have a great deal working against them (Gartner 2004). In addition to the factors discussed in the previous section, STEs may suffer from other factors that they have no control over. For instance, those without a strong domestic tourism market are susceptible to downturns in tourist numbers, from factors such as disease (such as, Severe Acute Respiratory Syndrome [SARs] or Avian Flu), the repercussions of terrorism (Gartner 2004), and more recently natural disasters. They also suffer from cultural obligations, such as hiring family and friends, which may lead to hiring low skilled employees (Gartner 2004).

Despite the predominance of small businesses in tourism (in terms of numbers), Kirsten and Rogerson (2002) assert that the power of larger tourism enterprises severely strains the growth of STEs. This suggests that despite the numerical superiority of STEs they face many market challenges. In support of this, Harrison (1994 p.242) cited in Kirsten & Rogerson (2002) state that small locally owned tourism enterprises are essentially '*left to scratch around for any crumbs*' that might fall from the table.

In a recent study focusing on the development needs of SMTEs in the APEC region, Gammack (2004) identified a number of general development needs. These suggest that SMTEs often operate in problematic environments and many small tourism operators will have difficulties incorporating new technologies. The development needs identified by Gammack (2004) are essentially barriers that need to be addressed. They are:

- A lack of a trained and professional workforce.
- Entrepreneurship development.
- Low-entry barriers affecting service quality, growth, and business viability.
- Lending arrangements or taxation regimes not conducive to SMTEs.
- Sustainable regional infrastructure requirements.

- Inconsistent and bureaucratic local authorities.
- Lack of government recognition of tourism value.
- SMTEs failure to recognise importance of industry clusters and cooperation.
- Industry fragmentation and proliferation of membership organisations.
- Lack of technology and e-commerce skills.
- E-readiness and e-commerce uptake.
- Research information is scattered and irrelevant for SMTEs' planning.

2.2.5 Summary of small businesses

As observed at the beginning of this section small businesses are a heterogeneous group of enterprises. Nevertheless, they face many common challenges concerning the adoption of new technologies, such as the Internet. The next section continues this discussion at length.

This section of the literature also discussed small businesses both in general terms and in relation to developing countries. In this thesis any business with 1-20 employees is classified as a small business.

Some important characteristics of small businesses in developing countries are:

- They tend to be resource poor.
- They have basic technology needs.
- They are informally run.
- They rely on family labour.
- Enterprise start-up/capital is strongly related to family sources or the owner.
- Managerial competence and capacity building are often lacking.

The key barriers faced by small businesses in developing countries are displayed in Table 3. These characteristics suggest that small enterprises face many challenges to adopting new technology.

Table 3: Barriers faced by small businesses

Organisational and resources	Market	Environmental	Managerial
Suffer from information scarcity	They are affected by external forces, which they have no control over	Are susceptible to harassment from criminal gangs and corrupt institutions	Managerial and financial factors are often linked to failure
Have trouble gaining access to capital. Capital is often obtained	Operate in limited markets and face	Political environment is	Encounter difficulties in adequately obtaining and

from family members	obstacles to penetrating export markets	not conducive to small businesses	processing the information necessary to define their objectives and strategies
Face restrictions on qualified human resources	Operate in informal sectors and avoid any form of formal registration	Political environment often favors larger businesses	Use antiquated management methods making it difficult for them to adapt to a new competitive environment
Have basic technology needs, are informal and often employ family members	Inaccessibility of small-scale entrepreneurs to market networks often drive them towards informal networks	Fragile business environment	Controlled by owner/managers (often the same person). Who contribute most to all the operating capital

This section also introduced STEs. It highlighted that most tourism enterprises are small and play a major role in tourism destinations. Some discussion was given on the characteristics of STEs. Some characteristics of STEs that differ from small enterprises generally are that owners enter tourism for lifestyle reasons; STEs suffer from factors they have no control over (such as, disease and terrorism) and experience cultural obligations, such as hiring family, and friends. The following section of the literature review narrows the discussion to small business e-commerce.

2.3 E-commerce and small enterprises

It is difficult, and yes, it is possible. (Costa 2001 p.129)

(Eduardo da Costa commenting in his book *Global E-commerce Strategies for Small Businesses* on the potential for SMEs in developing countries to adopt e-commerce).

The purpose of this section is to discuss the literature relating to small business e-commerce in developing countries. In essence, this section builds on the relationship between small enterprises, STEs and e-commerce. This section begins by defining the actual scope of e-commerce. It then continues to discuss small business e-commerce, drawing on examples from both the developed and developing world. Finally, it discusses STEs and e-commerce in developing countries.

2.3.1 Definition of e-commerce

There is a wide range of e-commerce definitions. Two definitions are discussed here. The first definition is narrow, referring to e-commerce as the general exchange of goods and services via the Internet (in which the order is placed on-line and payment may be conducted on or offline). The second definition is broader

and more inclusive, which includes the use of the Internet in any way that improves a business' relationship with its customers or suppliers (this is also commonly referred to as e-business).

Definition 1: narrow

> *The sale or purchase of goods or services, whether between business, households, individuals, governments, and other public or private organisations, conducted over computer mediated networks. The goods and services are ordered over those networks, but the payment and the ultimate delivery of the good or service may be conducted on or off-line.* (OECD 2002 p.89)

Definition 2: inclusive

> *…ecommerce, including the use of ICT in any way that improves a SMEs relationships with customers or suppliers. This includes actually transacting business electronically – orders, invoices, shipment documents – as well as using ICT for marketing, market research, customer service, finding potential customers and suppliers, offering entirely new products and services and more.* (Payne 2002 p.2)

Following the lead of Payne (2002) this study adopts the latter description of e-commerce. In the context of developing countries this is more relevant as small businesses can gain significant benefits from the Internet even when orders or transactions are not performed online (Payne 2002). In fact, some authors go so far to suggest that small businesses in developing countries should not focus on online transactions (Humphrey 2002; Payne 2002). Along these lines, Akkeren and Cavaye (1999 p.1) suggest that there is a strong argument for researchers to focus studies on entry level activities: '*once a small business has adopted Internet technologies at the entry level, they can get familiar and comfortable with the Internet and, in time, move on to adoption of more sophisticated e-commerce technologies*'.

Therefore, the definition of e-commerce adopted in this thesis is:

The use of the Internet in any way that allows a business to communicate, publish or gain access to information. This includes activities such as email and the publishing of information on websites or portals, as well as research and information gathering, reservations and even payments online.

This definition implies that any business use of the Internet can be described as e-commerce (also referred to as e-business). Therefore, in this thesis, the words e-commerce and Internet are used interchangeably from this point forward, when discussing their application in business.

2.3.2 E-commerce and small enterprises: developed countries

E-commerce adoption is different from that of traditional information systems (Poon & Swatman 1999), and requires some change in how a business operates. E-commerce adoption in small businesses occurs differently to adoption in large enterprises (Al-Qirim 2004). Most small businesses do not have a strategic plan for information system adoption (Hunter, Burgess & Wenn 2005) and the same can be said for e-commerce. A review of the literature on small enterprise e-commerce in the context of developed nations provides a number of lessons. Despite the inherent characteristic of being opportunistic, and flexible, small businesses lag behind their larger counterparts in their adoption of e-commerce (Drew 2003; Walczuch, Van Braven & Lundgren 2000). Often adoption is based on the owners perception of its value (Peng, Trappey & Liu 2005). There is also a link between the product, its suitability to the web and customer expectations (Golden, Hughes & Ruane 2004; Tiessen, Wright & Turner 2001). Small businesses often build on their use of e-commerce through a staged approach, building upon the level of sophistication (Burgess 2002) and only seek external assistance when a task (such as building a website) is perceived to be to difficult to tackle (Paraskevas & Buhalis 2002; Burgess 1998).

Reasons for the slow uptake of e-commerce amongst small enterprises

There are many reasons for the inertia surrounding e-commerce adoption amongst small businesses. These reasons can be linked to the characteristics of small enterprises discussed earlier. Previous studies show that the main obstacles to adoption are skill deficiencies, the cost involved, and time constraints (Karanasios et al. 2006; Tabor 2005; Burgess & Wenn 2005; Hunter, Burgess & Wenn 2005). Businesses with previous experience in technology are likely to have a positive experience concerning the success of e-commerce adoption (Golden, Hughes & Ruane 2004). Other reasons for the inertia are that often small businesses are concerned that e-commerce simply will not reduce costs and lead to benefits (Walczuch, Van Braven & Lundgren 2000). In fact, some authors claim that benefits are only fictional and may not materialise in some cases (Sadowski, Maitland & van Dongen 2002; Al-Qirim 2004). Also, e-commerce activities consume a large amount of resources and by doing so can interfere with the daily operation of the business (Poon & Swatman 1999).

Benefits associated with e-commerce

Nevertheless, there are many successful examples of e-commerce adoption. In many industries such as tourism the adoption of e-commerce is becoming more common. Many studies have identified that the major benefit of e-commerce for small businesses is the use of the Internet as a communication tool (Poon & Swatman 1999; Walczuch, Van Braven & Lundgren 2000). That is, the asynchronous nature of email, the ability to communicate over long distance, and the costs savings of email compared to traditional means of communication (Poon & Swatman 1999; Walczuch, Van Braven & Lundgren 2000). Chyau (2005) identified more comprehensive ways the Internet can benefit small business and provide practical examples of how it is possible. These are relevant because it suggests that e-commerce offers the opportunity for businesses to improve almost all aspects of operations. This goes beyond suggesting that the main benefits of e-commerce are its use as a communication medium.

- Increase productivity in the production process.

- By improving inventory management systems while decreasing waste.
- Allowing businesses to share and learn new business practices and assist capacity building through e-learning platforms.

- Increase efficiency of internal business operations.
  - By simplifying government services such as business registration, filing taxes, and introducing new methods of payment through e-commerce.
  - By improving accounting and budgeting systems.
  - By improving inter business communication.
- Connect SMEs more easily and cheaply to external contacts, whether locally or globally.
  - By reducing communication costs and bridging geographical barriers amongst customers and suppliers.
  - By allowing SMEs to build on the market base through online marketing.
  - By linking SMEs to local and global supply chains and outsourcing opportunities.

A note on online transactions

Amongst small businesses there is little use of more sophisticated e-commerce activities such as online payments (Poon & Swatman 1999; Walczuch, Van Braven & Lundgren 2000). This can often be attributed to the nature of the product. Intangible products such as software and tourism related services sell better over the Internet (Golden, Hughes & Ruane 2004). At the same time, research focusing on advanced activities such as selling and buying goods and collecting payments directly over the Internet suggest that these activities are unlikely to yield useful results (Golden, Hughes & Ruane 2004). Some other reasons small businesses are not offering online transactions include (Poon & Swatman 1999):

- Lack of widely accepted transaction standard.
- Security issues.
- Reluctance to move away from traditional payment methods.
- Financial institutions are not ready.

The transferable lesson here is that for now, small enterprises in developing countries should not focus specifically on offering sophisticated online activities such as online payments.

2.3.3 Summary of e-commerce and small enterprises in developed countries

The purpose of this section was to discuss e-commerce and small enterprises in the developed country context, before entering into a discussion of the case in developing countries. The key points from this section that are relevant to small businesses generally are:

- Very few businesses have a strategic plan regarding the adoption of the Internet.
- Adoption is based on the owner's perception of its benefit and value.
- Small enterprises generally have been slow to adopt e-commerce.
- The primary use of e-commerce is the use of the Internet as a communication medium.
- The main inhibitors to e-commerce adoption are lack of skills, resources, time, and capital.

If one is to use these as benchmarks, and to take into consideration the characteristics of small enterprises in developing countries and the environments in which they operate it is obvious that they will face many challenges and that e-commerce penetration amongst small enterprises is likely be low. The next section discusses e-commerce adoption amongst small businesses in developing countries.

2.3.4 E-commerce and small enterprises: developing countries

> *It is without a doubt that information and communication technology (ICT) has enabled the small, medium, and micro enterprises' (SMME) networks to become more integrated and more effective across longer distances, operating with more efficiency and conducting transactions in greater volume. However, it must be noted that in reality, the small businesses that constitute the bulk of developing economies have yet to reap these benefits evenly, as obtaining such opportunities rest largely upon the ability of its SMMEs to engage in the regional and global economic business networks which, in turn, demands provision of a prerequisite level of access to and use of ICT.* (Chacko & Harris 2006 p.175)

As discussed in previous sections small businesses in developing countries often operate in challenging environments. This suggests that the adoption of new technology like e-commerce will be faced with many barriers. Drawing on examples from literature, this section will discuss small business e-commerce in developing countries, the barriers they face, and their use of e-commerce.

2.3.5 To adopt, or not to adopt?

As observed, e-commerce adoption presents serious opportunities and obstacles for small enterprises. In a report for the United Nations that focused on East Asian and Latin American countries, Kuwayama (2001) identified a number of benefits for small businesses in developing countries. They include the strengthening of customer relationships, the ability to reach new markets, more efficient business processes, reduction in expenses, improved business knowledge, the ability to attract investment, and the creation of new products and services. Therefore, e-commerce can enable small businesses to be more responsive to, and interact with, customer needs.

At the same time it must be noted that e-commerce may not be appropriate for all types of small businesses. The types of products or services sold will often dictate whether it is appropriate or not - businesses in developing countries selling tangible goods online are likely to face many difficulties (Wresch 2003). Small businesses with fewer resources tend to draw on informal networks for information (such as from family, friends and other known sources) because trust plays a major role (Duncombe & Heeks 2001). Duncombe and Heeks (2001) argue that for these businesses the Internet is inappropriate and that the only technology that could offer benefits could be the telephone.

2.3.6 Impediments to e-commerce adoption

Payne (2002) argues that small enterprises are in a good position to adopt new technologies because they are not inhibited by bureaucratic structures and complicated hierarchies. Despite this, small enterprises have been slow in adopting the Internet. The literature addressing the obstacles faced by small enterprises in developing countries has been well visited, particularly at the macro level. Kuwayama (2001) asserts that one of the most significant barriers is the low use of e-commerce by the businesses' main customers, or customer readiness. That is, until sufficient numbers of their customers or suppliers participate in online commerce activities, there is little use for these businesses to adopt the technology. In other words, a critical mass of users is needed. At this point it is useful to reiterate the efficacious relationship between tourism and the Internet (refer section 1.4 for a discussion on tourism and the Internet). Tourism is an industry where a critical mass of suppliers, customers, and other tourism entities using the Internet exists.

This section describes the macro and micro level challenges faced by small businesses in developing countries. It is important to note that even though they are discussed separately, in many instances these factors are related. Macro level obstacles include factors that are typically out of control of small businesses (summarised in Table 4). On the other hand, micro level obstacles are factors that are faced at the organisation level and can possibly be influenced by the actions of a business (summarised in Table 5). At the micro level, the obstacles faced by small enterprises are less explored.

Table 4: Macro level impediments

Impediment	Source
Inadequate and unreliable telecommunications infrastructure	(Murelli & Okot-Uma 2002; Salman 2004; Hawk 2004; Jennex & Amoroso 2002)

Poor delivery systems and lack of payment options	(Hawk 2004; Costa 2001; Payne 2002; Murelli & Okot-Uma 2002; Aljifri, Pons & Collins 2003; UNCTAD 2004; Ranganathan & Kannabiran 2004)
Government, legal and regulatory issues, trust and security	(Mann 2002; Murelli & Okot-Uma 2002; Payne 2002; Ranganathan & Kannabiran 2004; Sarrocco 2002; Khan 2002; Barnard & Wesson 2003; Aljifri, Pons & Collins 2003)
Socio-cultural factors	(Khan 2002; Salman 2004; Hawk 2004)
Lack of knowledge and skills in the workforce	(De Boer & Walbeek 1999; Salman 2004)

Table 5: Micro level impediments

Impediment	Source
Access to financial resources and the cost involved	(Lake 2000; Cloete, Courtney & Fintz 2002; Indjikian & Siegel 2005; Khan 2002)
Lack of awareness and knowledgeable employees	(López-Bassols & Vickery 2001; Moodley & Morris 2004; Jennex & Amoroso 2002)
Internal security issues	(Cloete, Courtney & Fintz 2002)
Other factors	(Cloete, Courtney & Fintz 2002; Palmer & McCole 2000)

Macro level impediments

Inadequate and unreliable telecommunications infrastructure

The unreliable and inadequate telecommunications infrastructure is probably the most commonly cited obstacle to e-commerce in developing countries (Murelli & Okot-Uma 2002; Jennex & Amoroso 2002). This is particularly true for enterprises outside of large cities. This has been discussed in earlier in this chapter.

Poor delivery systems and lack of payment options

Poor delivery systems and lack of standardised payment methods in developing countries continue to be an obstacle to e-commerce (Karake-Shalhoub & Al Qasimi 2006). Payment models adopted in the USA (credit cards and PayPal) provide only a partial solution in developing countries. In Russia, India, and Latin America for instance, a combination of different payment systems and delivery methods are used (Hawk 2004).

Government, legal and regulatory issues, trust and security

This area was discussed in section earlier in this chapter. Governments play an overarching role in alleviating barriers (Rizk 2006), and providing a favourable business environment. At the same time, most governments have not embedded ICTs into SME policy. Cloete et al. (2002) even suggested that South

African businesses are unlikely to adopt more complex e-commerce systems unless some government assistance is offered. Some examples of what some governments are doing to help SMEs are:

- The Philippines government is working to reduce the cost of international telephone calls by deregulating Voice-over-Internet Protocol (Chyau 2005).
- The Malaysian government offers loans to SMEs for the purchase of ICT equipment, and for capacity building (SMIDEC 2001).

Trust and security also poses an obstacle to adoption. For instance, a Malaysian study showed that security and the uncertain nature of the legal contract between supplier and customer was a barrier to e-commerce expansion (Mukti 2000). The subject of trust is especially important to small enterprises in developing countries because by nature they are less trusted by international customers (UNCTAD 2004)

Socio-cultural factors

Socio-cultural factors relate to how the adoption of e-commerce can impact on social norms. It includes a wide range of issues such as, access to information, attitudes towards the technology, the potential empowerment of minorities, issues relating to cultural distortion and so forth (this was discussed in more detail earlier in this chapter). It can even refer to the cultural norms of doing business - some businesses in developing countries prefer to conduct business face-to-face (Jennex & Amoroso 2002). These factors are gaining increasing attention in the context of e-commerce and developing countries (Vatanasakdakul, Tibben & Cooper 2004; Aljifri, Pons & Collins 2003). Efendioglu and Yip (2004) refer to this as the socializing effect of e-commerce. Other cultural issues such as the lack of local language content to be of use to small enterprises (De Boer & Walbeek 1999), transactional and institutional trust and attitudes toward debt are all examples of socio-cultural issues that can influence e-commerce adoption (Efendioglu & Yip 2004).

Lack of knowledge and skills in the workforce

Another inhibiting factor is the related ICT human capital base, in terms of employees and/or managerial staff with ICT skills in the workforce. In some countries there is already a shortage of employees with appropriate skills, and small businesses do not usually react adequately to this situation by providing ICT training for their employees (Kuwayama 2001).

Micro level impediments

Access to financial resources and the cost involved

As observed in section 1.1.4, access to finance is a major obstacle for small enterprises that the cost involved with adopting e-commerce is a serious barrier (Rizk 2006; Costa 2001; Salman 2004; Lake 2000; Cloete, Courtney & Fintz 2002). As an example, a study in 2002 in Vietnam found that the price of hosting a website was un-proportionally 50-100 fold that of other countries (Hanh 2002). However, encouragingly

there is evidence to suggest that small businesses recognise that there are more critical factors (Jennex, Amoroso & Adelakun 2004) and they are able to find ways of circumventing the cost involved (Wresch 2003).

Lack of awareness and knowledgeable employees

The diffusion of the e-commerce into small businesses is also hindered by the general lack of knowledge and awareness of its full potential (Moodley & Morris 2004; López-Bassols & Vickery 2001; Rizk 2006). Oyelara-Oyeyinka and Lal (2006) found a link between businesses using advanced technologies and the education level of owners. This suggests that adoption is more predominant amongst knowledgeable managers. Also, sometimes the benefits are not perceived to be applicable in the particular case of the business (Cloete, Courtney & Fintz 2002).

Furthermore, enterprises are hindered by the lack of skilled human resources (this is linked to the wider macro environment) (Rizk 2006). This relates to the skills and knowledge to implement new technology and perform interactions with customers and suppliers online (Jutla, Bodorik & Dhaliwal 2002). This issue is compounded because small enterprises suffer from cultural obligations such as hiring family and friends, which may lead to hiring low skilled employees (Gartner 2004).

Internal security issues

Security relates to issues such as data protection, unauthorized intrusion, unsolicited email, viruses and the area of online payments (Palmer 2000). In developing countries, there is a general lack of knowledge concerning how to deal with these issues (Cloete, Courtney & Fintz 2002) and the implications for small enterprises.

Other factors

Outside of the barriers to e-commerce adoption discussed, a number of other factors pose problems for small businesses in developing countries. For instance, Croes and Tesone (2004) found that the investment in technology in developing countries is often more expensive than the wages it saves because of the higher costs of technology. Palmer (2000) also suggests that the amount of time in gaining access to the Internet posses a problem. Socio-cultural factors although discussed at the macro level may also be an issue within an enterprise, related to the attitudes held by employees and managers towards ICTs and change.

2.3.7 How are small enterprises in developing countries using e-commerce?

Faced with what seems like an enormous array of hurdles, how are small enterprises adopting e-commerce? How are enterprises using e-commerce? There are many successful examples of e-commerce adoption by small businesses. Evidence from a large study by the Asia Foundation in 2002 on SMEs in Philippines, Indonesia, Sri Lanka, and Thailand found that email communication between suppliers and customers,

research and information gathering, and to a lesser extent basic information websites were the most common uses of the Internet (in many respects this is quite similar to the main uses by small businesses in developed countries). Along these lines, authors suggest that basic e-commerce activities such as email (Duncombe 1999; Duncombe et al. 2004; Palmer 2000; Moodley & Morris 2004), the use of small advertisements (Zeitlyn & Barone 2004), research and information gathering (Palmer 2000; Tanburn & Singh 2001), and the use of portals (Lal 2005; Kuwayama 2001) are the most common. Therefore small business e-commerce in developing countries can be described as open information and communication exchanges.

One area in particular that has received a lot of attention in the context of developing countries and has the potential to assist small businesses with e-commerce adoption is the use of public Internet access points such as telecentres or Internet cafés. This phenomenon is discussed here briefly.

Public Internet access points

Telecentres and Internet cafés are rapidly expanding across the developing world, mostly in town and urban areas, and with the help of tourism, the phenomenon has reached even to remote areas (Goldstein & O'Connor 2000). Asia in particular has seen an explosion in the growth of telecentres, particularly in rural areas (Harris 2005). It is important to point out that telecentres are distinct from Internet cafés because they provide community services and development, rather than operate on a profit based model (Harris 2005). Telecentres are also known as multipurpose community telecentres, village information shops or information kiosks. The services they offer include telephone calls, email, facsimile, photocopying, web browsing, information retrieval assistance, general purpose computing, and computer training (Harris 2005; Rathore & Alhabshi 2005). It is not surprising that many authors have highlighted the importance of telecentres or other shared access points to businesses as well as the greater community (Colle 2005; Colle & Roman 2005; Furuholt, Kristiansen & Wahid 2005; Harris 2005; Rathore & Alhabshi 2005; Tschang, Chuladul & Le 2002; Kasusse 2005; Goldstein & O'Connor 2000). Best and Maclay (2002) go so far to suggest that the economic self-sustainability of the Internet in rural areas will depend on making facilities shared as opposed to focusing on individual use. However, there is still a degree of uncertainty surrounding the sustainability of this model.

The cost of using shared access points is the main attraction. For instance, the average charge of Internet cafés in Kempala, Uganda is 25-50Ush per minute (US$ 0.80 to US$ 1.5). As a result Ugandans abandoned US$ 9 faxes, as they could send the same information for a fraction of the cost (Kasusse 2005). Public Internet access points have also appeared in coffee shops and tourist and city centres and are quite makeshift, and range in their sophistication and use. In Cuenca, Ecuador, Salvador, Sherry & Urrutia (2005 p.84) wrote:

> *The cafes de [of] Internet in Ecuador are almost completely ad hoc arrangements of equipment, space, and use'… 'As a result, they are smaller (three to 10 machines) and less well equipped (various vintages and machines comprised of the working parts from several machines). They also appear to be used by a wide variety of people, including*

older people, but more narrowly for e-mail communication (and some chatting) and music downloads.'

There have been a number of studies on the use of telecentres and Internet cafés in developing countries, illustrating both positive and negative aspects and affects (Bala, Harris & Songan 2004; Harris et al. 2001; Harris 2005; Rathore & Alhabshi 2005). Harris (2005) argues that community characteristics could be the most important factor in influencing telecentres but they are also the least manageable. A well cited example of the positive role of a telecentre is the case of a remote village in the highlands of Sarawak, Malaysia known as Bario (Bala, Harris & Songan 2004; Harris et al. 2001; Harris 2005). Small lodges in Bario were empowered by the introduction of the telecentre. Previously they had to rely on travel agents for customers and old style radiotelephone for communication. Now however they can receive bookings via email and visitors to the area have increased (Bario was one area that featured in this study).

2.3.8 Summary of small business e-commerce in developing countries

It appears that the most common use of the Internet amongst small enterprises in developing countries is that of a communication and information publishing medium. The main barriers were identified in Table 4 and Table 5. At the small business level these were lack of financial resources, security issues and lack of awareness and knowledgeable staff. It was also observed that authors suggest that small enterprises focus on basic e-commerce practices. In addition to this, public Internet access points were highlighted as playing an important role in their potential to provide access to the Internet. The next section narrows the discussion of small businesses and e-commerce to a specific industry, tourism.

2.4 Tourism, small enterprises and e-commerce

This section will build on the relationship between small enterprises and e-commerce and narrow the discussion to the tourism industry. The purpose of this section is to provide some discourse on the actual e-commerce uses by STEs in developing countries.

2.4.1 A note on tourism in developing countries

As this study focuses on STEs in developing countries, it is useful to highlight the importance of tourism in these parts of the world. Over the last decade there has been growing impetus on tourism and its role in development (Briedenhann & Wickens 2004; Ghimire 2001; Ashley, Roe & Goodwin 2001; Simon 1995; Wunder 2000; Kirsten & Rogerson 2002). Many economies show interest in the potential of tourism to develop and sustain economic activity (Gammack et al. 2004). Sustainable tourism (tourism that is economically, socio-culturally, and environmentally sustainable) in particular is seen as capable of providing both rural and economic development, and valorising conservation (Buultjens, Tiyce & Gale

2003). Along these lines, eco-tourism (ecological tourism) is a specific branch of tourism that is recognised as important for contributing to development in underdeveloped, biodiversity-rich nations, because it requires comparatively small investments (Wunder 2000).

The following statistics emphasise the importance of tourism in developing countries (WTO 2002b)[4]:

- In 83 percent of developing countries tourism is a major export.
- In one third of developing countries tourism is the primary export.
- 80 percent of the world's poor live in 12 countries and tourism is a significant income earner in 11 of these.
- Developing countries continue to draw an increasing number of visitors, an increase from 20 percent in 1973 to 42 percent in 2000.

In addition to this, tourism is labor intensive (meaning that it requires large expenditure of labor and not necessarily much capital) (Ashley, Roe & Goodwin 2001; Mekonnen 2001), creates linkages to other areas such as accommodation, food and beverages, recreational activities, transport, souvenir sales, and so forth, which generate further employment (Simon 1995; Ghimire 2001; Kirsten & Rogerson 2002).

2.4.2 Sector level support

As observed earlier government policies geared towards small enterprises and tourism enterprises aid the diffusion of ICTs and provide general support to enterprises. The tourism sector is rather unique because both private and government bodies have a vested interest at the individual and national level (Gammack et al. 2004). In other words, both the public and private sector are stakeholders. Government involvement is particularly important in tourism for political, economic and environmental reasons. The roles played by tourism sector include development, capacity building, coordination, planning, laws, policy and regulation. Recently there has also been greater involvement in issues related to environmental management, protection and sustainability. In Australia, government policy relevant to tourism and small businesses is developed within the Department of Industry, Tourism and Resources (DITR). The DITR website provides information for tourism operators and stakeholders and current funding opportunities. DITR also assumes responsibility for skills development, business incubators, referral and advisory services and reform activities. However, in some countries the public sector is reducing its involvement in these activities. For instance, the New Zealand tourism strategic plan bestows the private sector more control of destination marketing (Gammack et al. 2004)

[4] All references to WTO in this thesis refer to the World Tourism Organisation (not World Trade Organisation as more commonly known).

At the tourism sector level a number of developing country governments have initiated greater sector support for small tourism operators and clusters of tourism operators. In Thailand, the Tourism Authority of Thailand (TAT) focuses on information and ICTs, infrastructure and education, training and certification and financing (Gammack et al. 2004). In Malaysia almost all the projects under the Ministry of Culture, Arts and Tourism were focused on SMEs in the form of tourism infrastructure and facilities. The government supports SME growth through providing accessibility and sufficient funding sources, particularly softer loan conditions with respect to collateral requirements, low cost borrowing, accelerative loan approval, and flexible repayment schedules (Gammack et al. 2004). In Uganda a project was initiated to develop an ICT policy and an implementation strategy for the sectors Tourism, Trade and Industry. Two key objectives of this project were:

- To develop an ICT policy for the sector focussing on efficient co-operation of existing and future ICT initiatives.
- Capacity development within the sector.

Some of the relevant planned outputs include for the project were:

- Adoption of ICT investment guidelines by the sector.
- Establishment and acceptance of an ICT for development policy for the sector.
- Coordination in ICT initiatives through the sector.

The foregoing discussion suggests that sector level policies and support will be critical to small tourism operators concerning ICT adoption. This can be through capacity building and loans but also covers a range of tourism development issues such as certification, laws and regulations. Sector level support is discussed throughout this thesis under the topic of government readiness government readiness. Specific sector related discussion of Malaysia and Ecuador is provided in Chapter 6.

2.4.3 The Internet and tourism

Before discussing STEs and e-commerce, it is useful to begin by examining the larger relationship between the Internet and tourism as a whole. For sometime tourism has been recognised as an information-based, and information-intensive industry, that is well suited to Information and Communication Technologies (ICT) (Inkpen 1994; Poon 1993; Sheldon 1997). Over the last ten years in particular there has been an increase in research concentrating on the Internet and STEs (Davidson, Burgess & Sellitto 2006; Matlay 2004), large tourism enterprises such as hotel chains and airlines (Buhalis 2004; Carroll & Siguaw 2003; Wan 2002), government tourism boards (Raventos 2006), and consumer behaviour (Davidson & Yu 2005). As at 2007, there were over one billion Internet users (Internet World Stats. 2007). It is of little surprise then that the numbers of people that use the Internet to research, plan, and even purchase tourism products

are increasing. In fact, the Internet '*has become one of the most successful channels used by consumers to research travel options, compare prices and make reservations*' (Collins, Buhalis & Peters 2003 p.484). This suggests that the Internet is increasingly becoming an essential tool in the tourism industry. As such, small businesses can gain major benefits – particularly as Internet users are characterised as likely to be active, independent and frequent travellers (Buhalis, 1999; WTO, 2001). Furthermore, the preferences and behaviour of tourists have shifted away from standardized packages, designed by tour operators, to individualized products, specifically tailored to customer needs and interests (WTO 2001). This change leads to a higher involvement of customers in the planning process (Buhalis 1999) of which the Internet becomes an important part.

2.4.4 Tourism enterprises and e-commerce

> *As an information intensive and global industry, the most relevant technologies in the tourism sector are ICTs, as a marketing channel, for record keeping, making bookings, information search, relationship maintenance, bill preparation, email and electronic commerce functions.* (Gammack et al. 2004 p.15-16)

In the past the tourism industry has widely adopted the use of technologies such as computerised reservation systems (CRS) and global distribution systems (GDS) used by travel agencies and airlines (Liu 2000; Zhou 2004). Airlines, car rental and hotel chains were quick to take advantage of the new opportunities offered by the Internet and developed Internet based applications (Buhalis, 2002). Now, most large hotels have integrated the Internet into their existing business practices and have created websites and use Internet technologies to improve communications internally and externally in order to reduce costs and to develop alternative distribution channels (Collins, 2003). However, the Internet also brings some drawbacks for tourism operators. For instance, Enz (2003) suggests that as pricing has become transparent and consumers have learnt to use the Internet to shop around for the best prices STEs face the risk of losing revenues and pricing control to online third-party distributors

The effect of the Internet on traditional travel intermediaries

One of the unique characteristics of the tourism product is the need of the position that is played by tourism intermediaries (Mekonnen 2001). Intermediaries are important because of the perishability and intangibility of the tourism product (Mekonnen 2001). As far back as the 1930s, intermediaries (travel agencies) were handling 80 to 90 percent of all steamship voyages (Raventos 2006). In fact, before the introduction of the Internet, travel agents were the most used source of information. Only a small number of tourists (mainly budget travellers, backpackers, and students) performed their own research and planned and booked their airline, hotel, and rental car travel directly (Buhalis 1998). The benefit of using an intermediary from a tourism supplier (hotels, airlines, tour operators) perspective was the reduced cost, which was largely due to organisational efficiency (Gratzer & Winiwarter 2003). The Internet has had a major affect on the role of traditional intermediaries. As the Internet allowed direct contact between suppliers and consumers (Lu &

Lu 2004) tourism suppliers began to market direct to customers,. This in turn cut into the traditional intermediaries market (Tsai, Huang & Lin 2004). Some authors suggested that the Internet has the potential to replace traditional travel agents (Tse 2003). This is because reservations that were previously facilitated through travel agents are increasingly being generated online by individual customers who are as likely to use online intermediaries as they are to contact suppliers directly (Carroll & Siguaw 2003). Internet reservations also reduce the cost of transactions for customers because travel agents and their associated commissions are by-passed (Namasivayam, Enz & Siguaw 2000).

Online intermediaries or Internet-based travel distribution intermediaries, such as Expedia, Hotels.com, Travelocity, Hotwire, and priceline.com, as well as a number of smaller ones, are revolutionising the way customers choose and book tourism services (Carroll & Siguaw 2003). Online intermediaries are also called cyber-mediaries, portals or strategic partners. They are involved with horizontal and vertical relationships in the tourism value chain, which makes it difficult to categorise them strictly as suppliers or partners. Buhalis and Licata (2002) label these the 'new eMediaries' that include a wide range of organisations including suppliers (such as airlines, hotels) selling directly on the Internet by allowing users to directly access their reservation systems, web-based travel agents, Internet portals and vortals (a buzzword that refers to a portal that is focused on a relatively narrow range of goods and services), and auction sites. The 'old eMediaries' were the Global Distribution Systems. The unique position of these online intermediaries allows them to leverage marketing and referrals, and they have become the new intermediaries between Internet users and businesses (Lal 2005).

2.4.5 Small tourism enterprises and e-commerce

There is a paucity of research on STEs and e-commerce in developing countries. Therefore, evidence is drawn from the contexts of developed countries to create an understanding of the phenomenon.

Small tourism enterprises and e-commerce: evidence from developed countries

Unlike their larger counterparts smaller tourism enterprises have been slow to adopt and realise the actual benefits of e-commerce (Standing et al. 1999, Buhalis 2003; Morrison et al. 1999 cited in Collins 2003). A number of barriers have been blamed for perpetuating the slow uptake. They are limited resources, lack of proper management, insufficient knowledge, lack of communication, legal regulations and restrictions, security issues, broadband restrictions, and ownership issues. These echo the discussion in section 1.1.

The benefits and obstacles of the Internet for tourism enterprises

Buhalis (1999) argues that the Internet has empowered even tiny tourism organisations and destinations, giving them representation in the electronic marketplace. According to Anckar and Walden (2001), there is evidence of small minorities of STEs that are taking full advantage of the electronic marketplace and are benefiting from the many opportunities that it provides. They assert that this in turn sends out a warning signal to STEs who have yet to have an online presence, and urges them to use the Internet as a mainstream distribution channel and to integrate it into their daily business processes. They continue to say that SMTEs

that evade adoption will lose out in maximising both their performance and profitability in the long term. Table 6 summarises the obstacles and benefits. In the left hand column, the obstacles are similar to those identified earlier (those relevant to small businesses generally). However, since tourism is information intensive a number of tourism related barriers also emerge. These barriers are related to the marketing of information online and dealing with third-party online intermediaries (who as observed play an important role in tourism). Concerning benefits, the primary benefits of the Internet are the ability to provide information 24/7 to a global audience and market directly to customers. The benefits column confirms that the main use of the Internet is to disseminate information and communicate with customers.

Table 6: Obstacles and benefits for STEs

Obstacles	Benefits
• Cost of hardware and software • Training cost of users • Design and construction of Internet presence • Cost of hosting • On-going maintenance/updating • Marketing the Internet service/registration of domain • Development of procedures for dealing with Internet presence • Paying commissions to intermediaries • Advertising fees to search engines and other sites	• Direct bookings • Global distribution of information • Low cost of timely updates of information • Global presence on the Internet all year round • Durability of promotion (compared to brochure) • Reduction of promotional cost and brochure waste • Great degree of attention by visitors to website • Reduction of time required for transactions • Ability to offer last minute promotions • Low cost of providing information to additional users • Support to marketing intelligence • Targeted mailing lists • Great interactivity with prospective customers • Niche marketing to prospective consumers • Interactivity with local partners • Ability to generate a community feel

Source: Adapted from Buhalis 1999, Table 3, p.224

Small tourism businesses and e-commerce: evidence from developing countries

This section discusses the existing literature in the area of STEs and e-commerce in developing countries. At the country level there is some indication that a number of governments have embraced the Internet as a tool to market themselves as a tourist destination (Raventos 2006; WTO 2002a). However, concerning STEs in these countries, as observed, a modest amount of literature exists on their Internet adoption and use, and what does exist is generally exploratory. Gartner (2004) suggests that despite claims that the Internet would allow STEs to compete with larger enterprises, the prediction has not come true. A study by

UNCTAD (2004) on STEs and e-commerce, found that there were not many tour operators with e-commerce strategies. Although some had websites and used email, few seemed to realise the value of an e-commerce strategy to their business. The following paragraphs present some findings from around the world.

Latin America

Central America: Evidence from an investigation by Croes and Tesone (2004) in Nicaragua and Costa Rica showed that less than thirteen percent of Costa Rican, and less than two percent of Nicaraguan SMTEs advertised on the Internet. Email was the most widely used online activity, although SMTEs indicated a preference for interaction through low-tech means such as cellular phones. While the least common uses were advertising and selling or buying goods on the Internet.

In Peru: A study by Gartner (2004) on small tourism operators found that they were all dependant on Lima based intermediaries who dealt directly with international agents that controlled prices. The small local providers felt powerless to make change. When the Internet emerged as a vehicle to bypass intermediaries, the small local operators explained that such a move would be viewed as hostile by the Lima based agents who had threatened before to stop selling services to any operator that had the audacity to act in such a way.

Asia & the Pacific

China: STEs in China followed a similar pattern in the development of ICT applications as in Europe and North America. The development was first started in airlines and then extended to hotels, tour operators, attractions and Destination Management Organisations (DMOs). Though some changes have taken place in small tour operators, hotels, visitor attractions, and DMOs, e-commerce in these sub sectors is limited. Online sales amongst hotels represented four percent of total sales, and the main use of technology amongst tourism operators was a computer as a typing machine (Ma, Buhalis & Song 2003). The main barriers were the lack of relevant e-commerce applications and experienced staff (Lu & Lu 2004).

Samoa: A study by Purcell et al. (2004) of SMEs (that included tourism enterprises) in Samoa found some positive advantages of Internet adoption. For instance, in the tourism industry, those operators that did not yet have a website indicated that the Samoan Visitors Bureau website advertised their businesses together with their email address. Tourism operators that did have a website were enjoying the business they received over the Internet, although they could not make or receive payments online. One operator even reported that it had to build more rooms to accommodate for new customers with some customers offering to sleep in the kitchen during festival time! They also found out about tourist needs, which they were not aware of before, such as that they want to experience the Samoan type of living. Table 7 illustrates the threats, barriers, and opportunities concerning Internet adoption identified by Purcell et al. (2004). The ranking of barriers and opportunities are consistent with the literature discussed so far in this thesis. The major difference between the barriers identified in Table 7 (developing country perspective), and Table 6 (developed world perspective), is that the barriers in Table 7 suggest that even basic e-commerce adoption is difficult, where as Table 6 identified more operational issues. This suggests that the challenges faced by

STEs in developing countries are more acute. Interestingly, in Table 7 socio-cultural factors emerged as the highest ranked threat. Also, one of the opportunities identified was that adoption of the Internet could increase the standard of living. This adds weight to the argument that ICTs can play a role in development.

Table 7: Threats, barriers and opportunities associated with Internet appropriation

Ranking of threats	Ranking of barriers	Ranking of opportunities	Ranking of factors of adoption
• Socio-cultural factors such as paedophilia, pornography and culture distortion • Decrease in productivity through online surfing	• Poor telecommunications infrastructure • Unstable power supply • Cost of hardware and Internet • Lack of skills and knowledge • No credit card facility • Lack of understanding of e-commerce	• Cheaper/ faster communication • Marketing of local products and services to the world • Availability of the Internet 24/7 • Easy access to information • Increase standard of living	• Awareness • Better tool than is currently available • Useful for the business • Ease of use

Source: Adapted from Purcell et al. 2004, Table3. p. 93

Africa

Morocco: In Morocco, Mann (2002) found most (especially smaller) hotels and tourism related businesses did not have informative websites and could not take reservations by email because of the high cost of telecommunications. Mann (2002) also established that business lacked familiarity with the Internet and the ability to design a website or set up an account.

The main points that can be taken from this discussion is that these studies show that little Internet adoption is taking place in developing countries, despite the obvious compatibility between the Internet and tourism. As with the general discussion of small business and e-commerce, communication and information publishing were the main uses. What is promising is that in some cases there is an awareness of the potential of the Internet (Croes & Tesone 2004), and that there is evidence to suggest benefits can result from adopting the Internet (Purcell, Toland & Huff 2004).

Some of the studies show differing results. For instance, in Samoa, a small remote country in the Pacific there was evidence that e-commerce adoption was increasing. While in China a large upcoming economy, it appears as though little e-commerce adoption was taking place amongst tourism enterprises. The reader is reminded of the previously mentioned diversity amongst the developing nations and small enterprises. Nevertheless, while these two investigations may not be suggestive of the situation in developing countries (because each study had a different focus), a question arises. What are the antecedents of 'e-commerce readiness' or 'e-readiness'? In this case, the question could be posed as what is different between the Samoan and the Chinese STEs? In other words what are the pertinent e-readiness factors or what factors lead to e-commerce adoption? This will be explored in detail in Chapter Three.

2.4.6 Summary of tourism, small enterprises, and e-commerce

This section of the literature review discussed the relationship between e-commerce and STEs. It was observed that the Internet and tourism have been seen as natural partners by many observers and most large tourism enterprises have adopted the Internet. Smaller tourism enterprises however are lagging behind. Some of the benefits associated with adoption were also discussed. Finally, this section concluded by providing some examples from the literature on the use of the Internet by STEs in various developing countries. It was observed that there are varied levels of use and adoption amongst STEs in developing nations. On the whole, there appears to be little uptake of e-commerce.

2.5 Summary of the literature review

The literature review began by introducing developing countries (as a group of countries), the digital divide, and highlighted the challenges and issues surrounding the adoption of ICTs. As discussed, the diffusion of ICTs in developing countries lags behind that of developed countries, some reasons being the low wealth of developing countries, the inadequate and unreliable telecommunications infrastructure, the level of education, computer literacy, the language and culture of these countries, and government and regulatory factors.

In the next section, a discussion of the characteristics of small enterprises and their importance was presented. Even before discussing the actual adoption of e-commerce, it becomes clear that small businesses in these countries face many challenges and obstacles to growth and indeed survival. The purpose of this chapter was to put into perspective some of the conditions under which small businesses operate. The aim was to illustrate that small businesses in developing countries require special attention and that any attempt to adopt new technology will be fraught with challenges and impediments. Some of their characteristics were:

- They tend to be resource poor.
- They have basic technology needs.
- They are informally run.
- They rely on family labor.
- Enterprise start-up and capital is strongly related to family sources.
- Managerial competence and capacity building are often lacking.
- They suffer from poor infrastructure.
- They function within limited markets.
- They operate in a political and business environment that favors large enterprises and are sometimes obstructed by corrupt institutions.

Given these characteristics and the environment in which they operate, it is not surprising that small enterprises face many challenges to adopting e-commerce. It is equally unsurprising that were it was adopted that its use could be categorised as entry-level. In summary, the main e-commerce activities were email communication, information gathering, basic static web sites, and the use of portals. Public Internet access points were identified as a common means of accessing ICTs, particularly in rural areas, and these may provide a partial solution for STEs.

The relationship between developing countries, STEs and e-commerce was discussed in the third section. Here, a discussion of STEs in both general terms and in the context of developing countries was given. As observed, STEs have been slow in adopting e-commerce. At the same time, the discussion suggested that there is significant potential for STEs to adopt e-commerce and absorb benefits from doing so. Some discourse was presented on the use of e-commerce by STEs in developing countries. As observed, many authors agree that it is not necessary for small enterprises in developing countries to concentrate on the most sophisticated technological approaches. This suggests that current e-commerce models are not applicable to the environments in which small businesses in developing countries operate and that a more relevant approach is required. In support of this, Moodley and Morris (2004) argue that a more inclusive and flexible model of e-commerce should be developed for enterprises in developing countries. The next chapter will discuss the theoretical foundations behind the development of the framework. So far this thesis has identified a number of challenges that STEs face concerning e-commerce adoption. This suggests that a framework may be of use to STEs. This is an issue that will be explored in greater detail in the next chapter.

Chapter Three

Literature Review: Theoretical Foundations

3 Literature review: Theoretical foundations

This chapter will discuss the theoretical foundations that lie behind the development of the framework. The framework has three purposes. The first is to identify the most relevant determinants of e-readiness (what factors collectively contribute to the e-readiness of a business, both negatively and positively). The second purpose is to identify strategies for STEs based on their level of e-readiness. The final purpose is to identify the pertinent implementation issues that STEs need to consider before actually adopting e-commerce.

This chapter is organised in five parts. It begins by discussing e-readiness tools. The purpose of this discussion is to describe the different types of readiness tools available, and to highlight the need for a micro or small business focus. After this, the chapter explores the theoretical foundations behind the e-readiness component of the study, drawing on examples from the literature to develop the initial framework. Following this, a discussion on how the Internet can be exploited based on the different levels of e-readiness is presented. Again many examples are drawn from the literature. The next section of this chapter discusses the underlying implementation issues that a business should consider before actually adopting e-commerce. These are technical issues, evaluation, and promotion. Finally, the initial conceptual framework is proposed and discussed.

3.1 E-readiness

3.1.1 What is e–readiness?

E-readiness is a complex multilayered phenomenon (Gammack et al. 2004). It has several dimensions, including telecommunications infrastructure, human resources, and legal and policy framework (www.internetpolicy.net 2005). At the country level e-readiness refers to the ability of a country to take advantage of ICTs as an engine of economic growth and human development.

> *The network readiness [or e-readiness] of a country indicates the ability of its principal stakeholders—government, citizens, businesses—to leverage the potential of information and communication technology.* (Gunasekaran & Harmantzis 2007 p.23)

> *E-readiness (electronic readiness) is a measure of the degree to which a country, or nation or economy may be ready, willing or prepared to obtain benefits which arise from information and communication technology (ICTs).* (Dada 2006 p.1)

Although most e-readiness tools are developed as a means of assessing or ranking countries, there are some works that examine the e-readiness of businesses and individuals within a country. At this level e-readiness is described as:

> *An organization's assessment of the e-commerce, managerial, organizational, and external situations in making decisions about adopting e-commerce*. (Molla & Licker 2005 p.879)
>
> and,
>
> *The ability to pursue value creation opportunities facilitated by the use of the Internet*. (Choucri et al. 2003 p.4)

Therefore, e-readiness in the context of this research can be described as: *an investigation and assessment of the business environment to enable STEs to pursue value created opportunities created by the Internet.*

Few researchers and academics have used the term e-readiness in the context of business. Jennex, Amoroso and Adelakun (2004) identified infrastructure success factors and Molla and Licker (2005) seminal work coined the term e-readiness to examine business readiness to adopt e-commerce. These works are discussed in this chapter. The next section discusses why there is a need for e-readiness assessments. Following this discussion, a description of the current macro level e-readiness tools (country level tools), and micro level e-readiness tools (such as at the business level) is presented.

3.1.2 E-readiness for what?

Before entering into a discussion on both macro and micro e-readiness tools, it is useful to discuss the underlying purpose of e-readiness. Although e-readiness is a term that has received much attention in the current climate of ICT and economic growth, at present there is limited understanding of what it actually refers to. In a report for MIT, Chourci et al. (2003) posed the question '*Global E-readiness - For What?'* This is a valid question. While this study does not focus on global e-readiness it focuses on the e-readiness of a particular type of business – STEs. What should STEs be ready for? The argument for the need for e-readiness was addressed in the previous chapter. The Internet has become one of the most popular mediums for researching, planning, and transacting travel by customers. Furthermore, e-commerce offers significant benefits for STEs, and it continues to be used heavily by many other tourism entities. This means that STEs that do not adopt the Internet face the reality of becoming uncompetitive.

However, STEs, particularly those in developing countries, have been slow to adopt e-commerce and face many challenges to doing so. This suggests that STE e-readiness is important. Gretzel and Fesenmaier (2001) suggest that finding measures to assess Internet readiness would greatly support tourism organisations in their endeavour to cope with new economic realities. Furthermore, Austin (1990 p.29) suggests '*the key to effective management in developing countries is the capacity to analyze, understand, and manage the external forces enveloping the firm'*. A good example of the need for assessing the

business environment is the experience of a hotel in Cairo, Egypt. The hotel developed a website with the ability to accept customer credit card payments online (as a way of guaranteeing reservations). However, local banks were unable to process online credit card payments, making this process a waste of business resources (Kamel & Hussein 2004). By performing an e-readiness assessment the business would more than likely have identified this shortcoming, and avoided wasting resources. The business may also have been able to develop a strategy to counteract this barrier.

3.1.3 Macro level e-readiness tools

The methodology behind each of the assessments is based on a mixture of qualitative and quantitative approaches. On the one hand, one group of e-readiness assessment techniques are developed within a quantitative framework making use of statistical studies or questionnaires. Using this approach countries are assigned numerical scores depending on how well they have performed on specific decisive factors. Then an average or score is calculated based on the relative importance placed on these factors. The second group of macro studies concentrates on qualitative assessments, using country cases and quasi-experimental approaches. This approach evaluates components such as connectivity, human capital, applications, sophistication of use, and geographical dispersion (Rizk 2006; Choucri et al. 2003).

The Bridges Organisation (Bridges.org 2005) categorises e-readiness tools based on whether they focus on 'e-society' or 'e-economy'. That is, those that concentrate on basic infrastructure or a nation's readiness for business or economic growth (e-economy), and those that focus on the ability of the overall society to benefit from ICTs (e-society). Table 8 is a list of just some of the e-readiness tools, and the areas that they focus on. There are a number of similarities shared between each tool shown in Table 8. For instance, connectivity (or access to the telecommunications infrastructure), human capital, and policy considerations are common to all 'e-economy' tools. These are also the most commonly cited reasons for the slow diffusion of ICTs in developing countries. The ASEAN readiness assessment (which focuses on e-society) differs from the other tools in that it measures the readiness of a country to enter the digital economy, and assesses factors such as market liberalisation.

Table 8: E-readiness tools

Tool	Type	Summary	Authors	Source
Readiness for the Networked World	E-economy	Network access, networking learning, networked society, networked economy, network policy	Centre for International Development, Harvard University	(Kirkman et al. 2002)
E-readiness Rankings	E-economy	Connectivity and technology, business environment, consumer and business adoption, legal and policy environment, social and cultural infrastructure, supporting e-services	Economist Intelligence Unit	(EIU. 2005)
ASEAN Readiness	E-society	Readiness for the digital economy and the	IBM, E-ASEAN	(Bhatia & IBM Singapore. 2001)

Assessment		development of the ASEAN information infrastructure. Measures e-society, ecommerce, e-government, liberalising trade in ICT goods and services and infrastructure		
Asian Pacific Economic Cooperation's (APEC)'s E-Commerce Readiness Assessment	E-economy	Basic infrastructure and technology, access to necessary services, level /type of use of Internet, promotion and facilitation activities, skills and human resources, positioning for the digital economy	Asian Pacific Economic Cooperation	(APEC 2000)
McConnell International's E-Readiness Report	E-economy	Connectivity, e-leadership, information security, human capital and e-business climate	McConnell International and WITSA	(McConnell 2000)

Source: Adapted from Bridges.org 2005, p.4 and Choucri et al. 2003, Table 1, p.3

Table 9 displays the e-readiness ranking for Ecuador and Malaysia (the two countries that feature in this study), as well as three other random countries. As illustrated by the table each readiness assessment places a different ranking on each country. However, if the overall number of countries assessed by the tools is taken into consideration then the rankings are quite consistent. Table 9 also illustrates that developed countries such as Australia have a high e-readiness ranking, whilst poorer countries such as Ecuador and Nigeria dwell in lower positions.

Table 9: E-readiness ranking for Malaysia, Ecuador and selected countries

	Network Readiness Index (2004)	Economist Intelligence Unit (2007)
Australia	11/104	9/67
Malaysia	27/104	36/67
India	39/104	54/67
Nigeria	86/104	62/67
Ecuador	95/104	59/67

3.1.4 Micro level e-readiness tools

Rizk (2005) argues that while e-readiness tools provide general insights into a country's ICT environment, they suffer a major drawback. That is, that they may ignore internal disparities within a country, and as such could be deceptive (Rizk 2006). A further limitation of these tools is that each focuses on a selected number of countries, and the selected countries vary from assessment to assessment. 'Micro' approaches are therefore recommended, as they are able to examine a phenomena in more depth (whether it be small businesses or individuals), and provide greater analysis (Rizk 2006; Dada 2006). However, at present, it is

difficult to find research that takes a micro level perspective. Dada (2006) goes so far as to say that the e-readiness ranking given to a country do not necessarily apply to the users with the countries. For instance, Dada (2006) found that Tanzanian users of ICTs showed higher levels of readiness than South African users, despite the fact that South Africa possesses a much higher e-readiness ranking than Tanzania. This suggests that macro level tools can be misleading when applied at the grass roots level.

Rizk (2006) recently performed a study that aimed to assess the e-readiness of SMEs and large organisations in the Egyptian textile garment sector. Adopting a micro approach towards analysis the study focused on evaluating a business' level of connectivity, awareness, and usage of ICTs, and identified barriers to e-readiness. This approach was employed because it has the advantage of capturing variations at the business level. Concerning connectivity, it was found that neither small nor medium sized businesses could be considered close to e-ready. On the other hand large businesses presented modest potential. Rizk (2006) argued that by extending e-readiness to include the use, awareness, and barriers to ICTs, one may conclude that e-readiness is in general proportional to size, and hence larger businesses are the most e-ready. Along these lines, she found that medium sized businesses, despite their modest connectivity are generally one step ahead of small businesses because they have greater awareness and some basic implementation of ICTs at the management and production level. SMEs are low on e-readiness not only because of the low level of infrastructure, but because of the more serious barriers related to awareness and human capital. She proposes that priority should be directed to increasing the awareness of the role of ICTs in SMEs, addressing the poor infrastructure, and building human capital. Table 10 charts the results of her study. It shows that small enterprises have low e-readiness, medium sized enterprises have low to medium e-readiness, and large enterprises have a medium level of e-readiness.

Table 10: E-readiness and business size

		Small	Medium	Large
E-readiness	Connectivity/e-infrastructure	L	L-M	M
	ICT awareness	L-M	M	M
	ICT use	L	L-M	M
	Overall	L	M	M

L: low, M: medium, H: high
Source: Adapted from Rizk 2006, Table 3, p.261

3.1.5 Summary of e-readiness

This section discussed e-readiness at the macro and micro level. As observed, there are a number of e-readiness tools that can be used to assess a country's overall e-readiness, and these are based on certain criteria or values. It was recognised that while they are useful for policy makers, they offer little guidance for small enterprises. Nevertheless, a discussion of these tools is useful to illustrate the notion of e-readiness. The next section discusses various technology adoption and business investigation models and frameworks that can be used to describe e-commerce adoption and categorise e-readiness factors.

3.2 Technology adoption

> *The manager confronts two basic questions: what to analyze in the environment and how to assess its relevance to the firm's strategy*. Austin (1990 p.29)

A number of authors have written about the adoption of technological innovation. For instance, Tornatzky and Fleischer (1990) discussed technology innovation amongst businesses, while Iacovou et al. (1995) discussed electronic data interchange (EDI) adoption amongst small businesses. More recently Molla and Licker (2005) discussed e-commerce adoption amongst businesses in developing countries. Each of these studies identified adoption drivers and inhibitors, and factors that require consideration by businesses when making decisions about adopting new technology. For instance, Tornatzky and Fleischer (1990) in their book *'The processes of technological innovation*' proposed the technology-organisation-environment framework. The purpose of the framework is to address the context in which innovation takes place, both within, and externally of the business. As e-commerce is an innovation, and Tornatzky and Fleisher's (1990) framework allows adoption factors to be categorised, it is adopted here to frame the following discussion on e-readiness in the context of small enterprises in developing countries. The framework has been employed by other small business researchers in the context of developing and developed countries to discuss ICT and e-commerce adoption (Kuan & Chau 2001; Scupola 2003; Scupola & Kubon 2005; Lertwongsatien, Wongpinunwatana & Achakulwisut 2004).

Tornatzky and Fleisher (1990) argue that from a businesses point of view there are three contexts that influence the process by which it adopts and implements technological innovations. The three contexts are discussed in the subsequent paragraphs.

The technological context: describes both the internal and external technologies relevant to the business. It is considered separately from the rest of the environment in order to focus attention on how features of the technologies themselves can influence both the adoption process and its implementation.

The organisational context: is defined in terms of several descriptive measures: business size, the centralisation, formalisation and complexity of its managerial structure, the quality of its human resources, and the amount of slack resources available internally.

The environmental context: is the arena in which a business conducts its operations: its industry, competitors, access to resources supplied by others and dealings with government. All these can influence the degree to which a business sees the need for, seeks out and brings in new technology. The environment presents both constraints and opportunities for technological innovation. Industry members, knowledgeable producers, regulators, customers and suppliers can provide innovation-related information as well as financial and human resources.

Figure 1 illustrates the relationship between the three contextual areas. The framework suggests that technological innovation decision-making is dependant on the influence of these contextual areas (and subsequent factors).

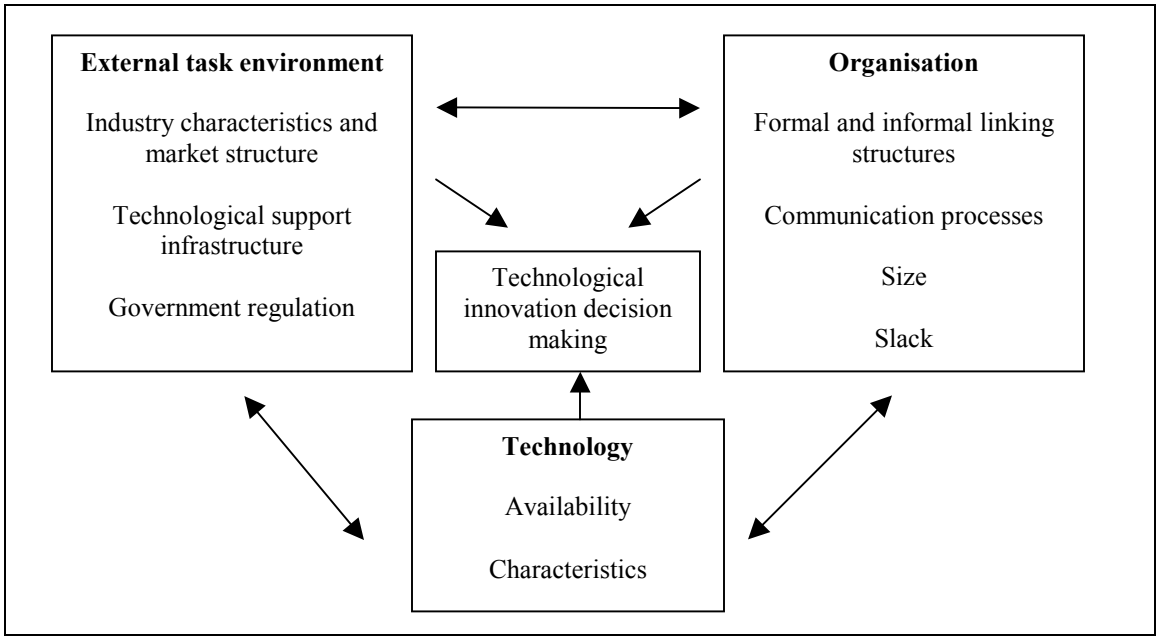

Figure 1: The context of technological innovation
Source: Adapted from Tornatzky and Fleischer 1990, Figure 7-1, p.153

Employing Tornatzky and Fleisher's (1990) framework the following paragraphs present a discussion based on a synthesis of the literature concerning small business e-commerce adoption factors paying particular attention to STEs in developing countries.

Organisational context

Within a business there are many elements that inhibit or support the adoption and implementation of technological innovation (Tornatzky & Fleischer 1990). *Business scope* (referring to the breadth of products offered and its market), *business size* and *overall business strategy* have been identified as factors that may influence e-commerce adoption (Xu, Zhu & Kraemer 2002; Lertwongsatien, Wongpinunwatana & Achakulwisut 2004; Burgess 2002). That is, the wider the business scope the more likely it is to adopt e-commerce. This is because greater scope leads to higher internal coordination, search, and inventory costs (Xu, Zhu & Kraemer 2002) of which e-commerce has the potential reduce and make more efficient. Similarly, the larger the business the more likely it is to adopt e-commerce. Rizk (2006) suggests that the level of e-readiness is (in general) proportional to size, and hence larger businesses are the most 'e-ready'. There is evidence to suggest that this is the case in tourism – in the previous chapter it was observed that STEs are lagging behind larger enterprises (who have largely adopted e-commerce). Furthermore, the e-commerce strategy should be linked with the overall business strategy (Burgess 2002; Grandon & Pearson 2003). The types of services or products sold may also influence e-commerce adoption or e-commerce activities (Golden, Hughes & Ruane 2004). Businesses in developing countries selling tangible goods

online (such as handicrafts, clothes and so forth), are likely to face many difficulties (such as the inadequate and unreliable logistical systems) concerning the selling and distribution of their products (Wresch 2003). Businesses selling intangible goods (such as tourism services, software, and digitised products and services) have an advantage because they can be sold and distributed online (the reader is reminded that tourism is an information intensive product that is well suited to the Internet).

Management enthusiasm, commitment, perceived value and *governance* of the e-commerce initiative are also factors that fall within the organisational context (Chau & Turner 2005; Molla & Licker 2005; Duncombe et al. 2005). Chau and Turner (2005) (in their study of 34 Australian SMEs) found that the owner/manager was central to e-commerce adoption and continued utilisation. E-commerce commitment (dedication to using e-commerce) is linked to market forces, such as market opportunities and customer expectation (Tiessen, Wright & Turner 2001). This suggests that in industries that are well suited to the Internet and industries where customers are heavily using the Internet (such as tourism), that there is greater management enthusiasm and commitment. In the context of developing countries there is also evidence that 'e-ready' managers are entrepreneurial, and able to mitigate barriers and successfully adopt e-commerce (Wresch 2003). This is important because it suggests that even though the challenges to adopting e-commerce are more acute in developing countries, managers are able to overcome the challenges. Along these lines, Tornatzky and Fleischer (1990 p.175) write that *'managers of organizations are not passive actors in their contexts; rather, in some cases they can be designers of them'*.

Many authors argue that a managers' *perceived value* of e-commerce and adoption are linked (Lal 2005; Grandon & Pearson 2003; Peng, Trappey & Liu 2005). However, in the case of developing countries, the literature suggests that despite the hype surrounding e-commerce, there is a general lack of knowledge of the full potential of the Internet (Moodley & Morris 2004) amongst SMEs, and often the benefits are not seen to be applicable to their particular situation (Cloete, Courtney & Fintz 2002). This suggests that their 'perceived value' of e-commerce is probably low, and may help to explain the inertia amongst small business in developing countries. At this point, one relevant discourse to take is to draw upon innovation diffusion theory (Rogers 1995) to explain e-commerce adoption. Innovation diffusion theory has been widely applied to the study of technological innovations, and has provided insight into the adoption, implementation, and diffusion of ICT innovations, particularly amongst individuals. This approach is based on the characteristics of the technology itself, the nature of the communications channels, passage of time, and the organisations external environment. Employing this sort of approach, one would begin by looking at the characteristics of the specific technology to be adopted, the advantages and problems associated with its use, and the market environment. The next step would be to suggest that the acceptance or rejection of the technology is largely due to these characteristics. Based on the discussion so far, it can be suggested that e-commerce adoption amongst STEs is largely related to the owners' perceptions of the Internet, the benefits it may provide, and the influence of market forces. A limitation of the innovation diffusion approach is that it does not take into account the characteristics of the people involved and the dynamics of small businesses (Tatnall & Burgess 2003).

Also, in the organisational context, an investigation of *internal resources* is necessary to assess the capacity of the business to engage in e-commerce. This is also known as organisational readiness (Grandon &

Pearson 2003; Iacovou, Benbasat & Dexter 1995). Chua and Turner (2005) suggest that the amount of internal resources available for e-commerce impacts the ability of a small business to implement and support e-commerce initiatives. Available *financial* and *employee resources* in particular are two factors that need consideration (Grandon & Pearson 2003; Iacovou, Benbasat & Dexter 1995). Concerning developing countries, an investigation of internal resources is likely to uncover many challenges (Salman 2004; Costa 2001) (such as lack of funds to invest in e-commerce, poor infrastructure, and lack of knowledge and skills).

One area that has not been explored well is that of *socio-cultural* issues. This covers a broad area and overlaps the internal and external environment. It includes, socio-cultural issues such as technophobia and computer anxiety (van Dijk 2006). It also includes they way of doing business. For instance, Vanatanaskdakul et al. (2004) suggested that this was a factor concerning B2B e-commerce in Thailand. Purcell et al. (2004) found that socio-cultural factors (such as paedophilia, pornography, culture distortion) were some of the leading concern for small businesses in Samoa. This suggests that socio-cultural factors are likely to become a factor concerning e-commerce adoption for small enterprises in developing countries.

Technological context

Tornatzky and Fleischer (1990) suggest that technology adoption is influenced by the technology that is available (some technology may not be relevant for certain businesses), and how the technology fits with the current internal technology infrastructure. Some businesses operate in technology stagnant conditions – where the industry has reached a stage of maturity, and therefore technology changes very little over time (Tornatzky & Fleischer 1990). Tourism, however, is an industry that has remained at the forefront of technological change.

Several factors are captured in this context. They are the existing *telecommunications infrastructure*, *hardware and software issues*, *employee technical skills,* and *e-commerce know-how* (Xu, Zhu & Kraemer 2002; Jutla, Bodorik & Dhaliwal 2002; Kuan & Chau 2001). Therefore, this contextual area not only refers to the actual technology itself and how it can be accessed and deployed, but also the necessary skills and know-how that are needed to compliment the technology. It also includes perceptions of the technology, particularly by management. This is particularly true in small business where the decision to adopt e-commerce is heavily reliant on the manager's acceptance and knowledge of the technology (Cloete, Courtney & Fintz 2002; Seyal, Rahim & Rahman 2000).

Environmental context

This context refers to the environment in which the business operates. It includes *the competitive environment*, *supporting industries*, *customers*, *suppliers and partners,* and *government forces*. These parameters have been shown to impact on technology adoption (Burgess 2002; Chau & Turner 2005; Iacovou, Benbasat & Dexter 1995), and are described in the following paragraphs.

Customer expectations often act as an adoption driver (Burgess 2002; Xu, Zhu & Kraemer 2002; Molla & Licker 2005), this is particularly true in tourism where customers often expect some form of online presence (Zeitlyn & Barone 2004). *Trading partner pressure* and *competitive pressure* may also influence

the decision to adopt e-commerce (Chau & Turner 2005; Xu, Zhu & Kraemer 2002; Iacovou, Benbasat & Dexter 1995). In tourism, intermediaries and other strategic partners in the tourism supply chain place pressure on businesses to adopt e-commerce because they prefer to do business online to reduce costs (Buhalis & Main 1998; Gupta, Jones & Coleman 2004). Likewise, defensive or reactive strategies are often adopted because the use of e-commerce is becoming common amongst tourism enterprises (Zeitlyn & Barone 2004). This may result in the rapid multiplication of e-commerce adoption (although this has not been the case in developing countries). Along these lines, Burgess (2002) posits that the threat of *new entrants* can act as an adoption driver. Again, this suggests that market forces can act as a catalyst for change and are a leading adoption factor. It also suggests that e-commerce itself can be a threat. At the same time, e-commerce operates as a vehicle for businesses to create *alliances* (Burgess 2002). Types of alliances can include collaborations with other businesses to share or pool resources or joint ventures to promote a tourism destination. Therefore, the adoption of e-commerce itself can provide new opportunities for a business.

Government readiness and *supporting industry readiness* have been identified as factors that can influence e-commerce adoption (Molla & Licker 2005; Chau & Turner 2005). Government readiness relates to issues such as reducing barriers and providing an overall conducive e-commerce environment. Governments, through policy can also provide assistance for businesses through initiatives and support programs to assist with the diffusion of ICTs (Vatanasakdakul, Tibben & Cooper 2004; Khan 2002). However, in many developing countries there is inertia and a lack of resources to tackle small business and ICT development. S*upporting industry readiness* refers to the assessment of e-commerce enablers. This includes financial institutions (to support online transactions), the IT industry, and most importantly the telecommunications industry (Molla & Licker 2005; Chau & Turner 2005). The supporting industry tends to be underdeveloped in developing countries especially outside of major cities.

3.2.1 Summary of the literature on technology adoption

This section discussed e-readiness factors from the point of view of small businesses framed within Tornatzky and Fleischer's (1990) framework. It was observed that a number of factors within the technological, environmental and organisational contextual areas contribute to e-readiness. The next section will build on this discussion.

3.3 Previous studies, models and frameworks

The previous section discussed e-readiness factors faced by small enterprises using Tornatzky and Fleischer's (1990) framework. This section will discuss specific models and frameworks that describe e-commerce adoption, and tools that can be used by small businesses when making decisions about e-commerce. Models are usually a representation of reality (usually tested), whereas a framework is a hypothetical description of a phenomenon. As it is difficult to find specific models or frameworks for STEs and e-commerce in developing countries, or small enterprises generally in these countries, this section will discuss other relevant works. A sample of models and frameworks will be discussed that cover the areas

relevant to this study. Table 11 displays a breakdown of the areas that will be covered in the following paragraphs.

Table 11: E-commerce frameworks and models

	The macro environment	Business & e-commerce	Tourism businesses & e-commerce	Developing countries, business & e-commerce
Austin (1990)	X			
Xu et al. (2002)		X		
Burgess(2002)		X		
Gretzel & Fesenmaier (2001)			X	
Molla & Licker (2005)				X
Dada (2006)				X

3.3.1 Macro/country level models model

A macro model looks at the overarching environment and is not necessarily technology specific. Here Austin's (1990) Environmental Analysis Framework (EAF) and Hofstede's (1991; 1980) cross-country comparison are discussed.

Environmental Analysis Framework

In the context of developing countries the overarching environment requires a different type of examination and subsequent managerial response to that of a developed country environment. Austin (1990 p.31) suggests that '*one of the big stumbling blocks facing managers attempting to carry out environmental analysis is figuring out how to sort out the external phenomenon'*. The fundamental task in environmental analysis is to identify and understand the external forces that impact the business. To contend with this task, Austin (1990) suggests that a broad view of the forces shaping the environment, systematically recognising the connections and interdependencies is adopted. He developed the EAF to help understand these forces. The framework categorises external forces into four environmental categories: economic, political, cultural and demographic (see Figure 2). Austin (1990) posits that there are other ways to sort the external forces; however these four categories are derived from the disciplines of economics, political science, sociology and anthropology, and demography. The next step is to '*envision*' the business as having four levels. The highest level is the international level, which encompasses various kinds of interactions amongst countries. Below the international level lies the national level, which is shaped by government strategies and policies. The next level is the industry level, which refers to the business' immediate competitive environment. The final level is the company level, which comprises of the individual enterprise strategy and its operations. These four levels move from the highest level (the international level), to the most micro (the business level). Each level is influenced by the overall environmental factors (economic, political, cultural, and demographic). As the levels are intertwined, any change at one level may have repercussions on the others.

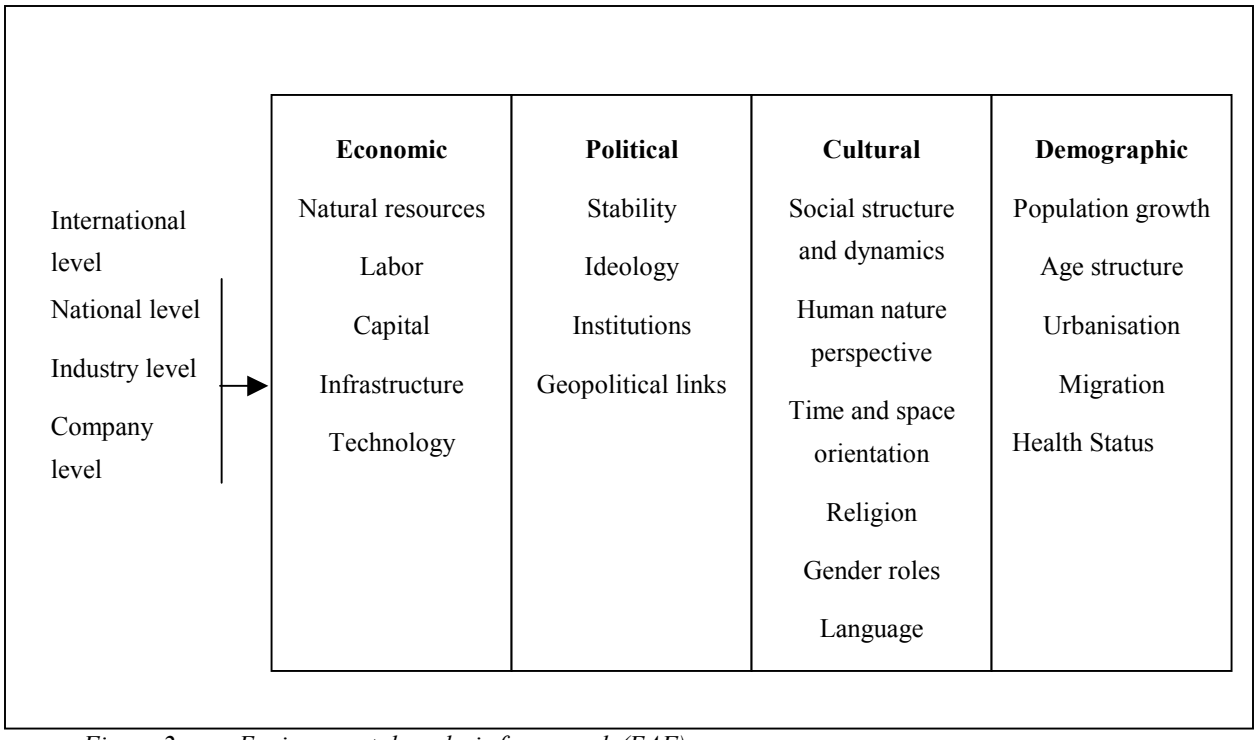

Figure 2: Environmental analysis framework (EAF)
Source: Adapted from Austin 1990, Figure 2.1, p.30

Using the framework a manager can systematically focus on and interpret the most relevant characteristics in the environment. As the framework is not specific to small business or focus on a particular technology some factors may be irrelevant to STEs. For instance, STEs are more likely to be concerned with the company level, the industry (tourism) level, and national level (government and infrastructure). Based on the discourse in Chapter Two, at the company level the most relevant factors are those within the economic and cultural sphere. Although demographic and political factors will to a large extent shape the business environment. Some of the factors cross more than one area. Along these lines, Austin (1990 p.31) suggests that it is important that managers understand '*each of the strands and how they are woven together to create the larger environmental fabric'*. This increases a manager's ability to decide what managerial actions might be taken to deal with the actual or potential impact of a specific change.

Culture influences model

Hofstede demonstrated that there are national and regional cultural groupings that affect the behaviour of societies and organizations (Hofstede 1991; Hofstede 1980). He performed a comprehensive study that comprised of 116,000 questionnaires, from 60,000 people from over 50 countries. Hofstede's research has a large affect on the discussion related to the many cross-cultural issues concerning organisations because his work takes into consideration the cultural influences in organisations and therefore can be applied to ICT adoption and use. However, some authors direct many criticisms towards his work. The most prominent criticism is that Hofstede's study assumes that national domestic population is homogenous (Jones & Alony 2007). Therefore applying his work to this study and tourism is particularly challenging because many owners and managers of tourism enterprises are foreigners and therefore are often influenced

by a different set of cultural norms. Nevertheless, Hofstede's work is discussed briefly here to shed some light on the disparity of the business environment in different cultures and the possible affect of ICT adoption. Hofstede categorised culture into five broad dimensions:

Small vs. Large Power Distance: this is the extent to which the less powerful members of organisations expect and accept how power is distributed. Organisational structures or cultural norms, where there are large distances between management and employees, are large power distances (such as occurs typically in Asia). On the other hand a small power distance is an organisational structure or cultural norm whereby an employee can comfortably engage management (such as occurs in Europe). Concerning ICTs, Jones and Alony (2007) suggest that a culture such as Malaysia, which holds a high power distance in organisations could benefit from the introduction of ICT as communication means because it would break down the power distance. As the manager typically holds power in small businesses there is very little hierarchy in small business and thus this dimension is not particularly applicable to this study.

Individualism vs. Collectivism: refers to the extent to which people are expected to stand up for themselves and to choose their own affiliations, or alternatively act predominantly as a member of a life-long group or organization. For instance, the USA is an example of individualism because as individuals they mostly tend to prefer singular achievement. This stems from a cultural upbringing that expects people to be independent from a very early age. On the other hand, Guatemala like many Latin American countries, is an example of collectivism because they tend to prefer to work in groups (Jones & Alony 2007).

As one of the functions of ICTs is promoting collaboration through efficient and inclusive communication (shared drives, group decision support systems, web based discussion and so forth) (Jones & Alony 2007), ICTs can enhance the collectivism in an organisation or importantly in tourism amongst cluster of small tourism operators. At the same time, ICTs may break the cycle of collectivism in developing countries because they require a certain level of capacity before a user can be included in the interaction.

Masculintiy vs. femininity: this dimension refers to the degree that 'masculine' traits like authority, assertiveness, performance and success are preferred to 'female' characteristics like personal relationships, quality of life, service and welfare. Jones and Along (20007) suggest that the use of ICTs in organisations shifts more towards a feminine style because it allows for greater flexibility and therefore could be seen as a threat in some organisations.

Uncertainty avoidance: uncertainty avoidance is the degree that people are threatened by a lack of structure or by uncertain events. It refers to the way that people will deal with the future, whether they have inherent control or whether events are beyond their control. People with low uncertainty avoidance will require structure and order with clear rules and guidelines. From this perspective, a small business may avoid adopting ICTs because they are uncertain of the consequences and this can prevent technological change.

This is similar to the some of the social and cultural barriers to ICT adoption referred to in the literature review.

Long vs. short-term orientation: time is a factor that has many different meanings and influences across the globe. In some societies factors such as practicality and frugality are valued, whereas in other societies respect for tradition, gifts and good deeds are more significant. As this dimension has little relevance in this study it is not considered further.

3.3.2 Business and e-commerce models and frameworks

At the business level, models and frameworks focus on factors that affect the adoption of e-commerce and factors that need consideration by managers when making decisions about e-commerce. Some of the factors identified by the business level models/frameworks are similar to those at the environmental (macro) level. Two different works are discussed here, the first focuses on e-commerce adoption amongst European enterprises (Xu, Zhu & Kraemer 2002), the second focuses on website adoption and small businesses in Australia (Burgess 2002).

Organisations and e-commerce

Taking Tornatzky and Fleischer's (1990) framework one-step further Xu et al. (2002) proposed a conceptual model for e-commerce adoption. The purpose of the model is to identify facilitators and inhibitors and to examine whether adoption behaviour varies across different e-commerce environments. The model does not focus specifically on small or large enterprises. Xu et al. (2002) collected data from 3,100 businesses and 7,500 consumers in eight European countries to test their model. The model posited six predictors for e-commerce adoption within the three-context framework (organisational context, technological context, and environmental context) (refer Figure 3). Their empirical analysis identified six significant e-commerce adoption predictors and revealed differing adoption behaviours across varied e-commerce environments. A key finding from their empirical analysis was that technology competence, business scope and size, consumer readiness and competitive pressure are significant adoption facilitators, while lack of trading partner readiness is a significant adoption inhibitor. The three contextual areas are discussed here.

Technological context: Xu et al. (2002) identify three variables that need consideration regarding technology competence. They are the existing IT infrastructure, IT expertise, and e-commerce know-how, which refer to executives' knowledge of managing online selling and procurement. Again, in this context, factors concerning the technology itself and how it can be incorporated into the existing infrastructure and factors concerning human resources emerge as the most pertinent factors.

Organisational context: The business scope and business size are two e-commerce adoption variables posited within the organisational context. The authors argue that the role of scope as an adoption predictor can be explained from two perspectives. First, greater scope leads to higher internal coordination costs,

higher search costs, and inventory holding costs. Since e-commerce can reduce internal coordination costs, lower search costs for both sellers and buyers, and improve inventory management, businesses with greater scope are more motivated to adopt e-commerce. Second, businesses with greater scope have more potential to benefit from the relationship between e-commerce and traditional business processes. One factor that appears to be lacking in this contextual area is attention to the cost involved with actually adopting e-commerce (it was observed in Chapter One that the cost of e-commerce often acts as an inhibitor). However, this issue may not have emerged as a relevant factor in the case of European enterprises.

Environmental context: Three areas need consideration in this context: consumer readiness, competitor pressure/readiness, and trading partner readiness. The authors argue that consumer readiness is an important factor for decision makers because it reflects the potential market volume, and thereby determines the extent to which innovations can be translated into profitability. Consumer readiness reflects the extent to which consumers accept online shopping or consumer Internet penetration (Internet penetration measures the diffusion of the Internet in the population). Customer readiness is not a factor that has been given much attention in this thesis thus far. However, the existence of this factor in Xu et al's (2002) study suggests that customer readiness can act as an e-commerce adoption facilitator. Competitive pressure refers to the level of pressure from the competitors of a business. This type of pressure can influence a businesses decision to adopt new technology in order to avoid a competitive decline. Similarly the adoption status of a business' trading partners may influence technology adoption because as a precondition for electronic business to take place it is necessary that trading partners have similar systems to provide Internet-enabled services for each other.

Xu et al's (2002) model represented in Figure 3 illustrates the factors within each contextual area. The combination of these three contextual areas can be used to assess the intent of a business to adopt e-commerce.

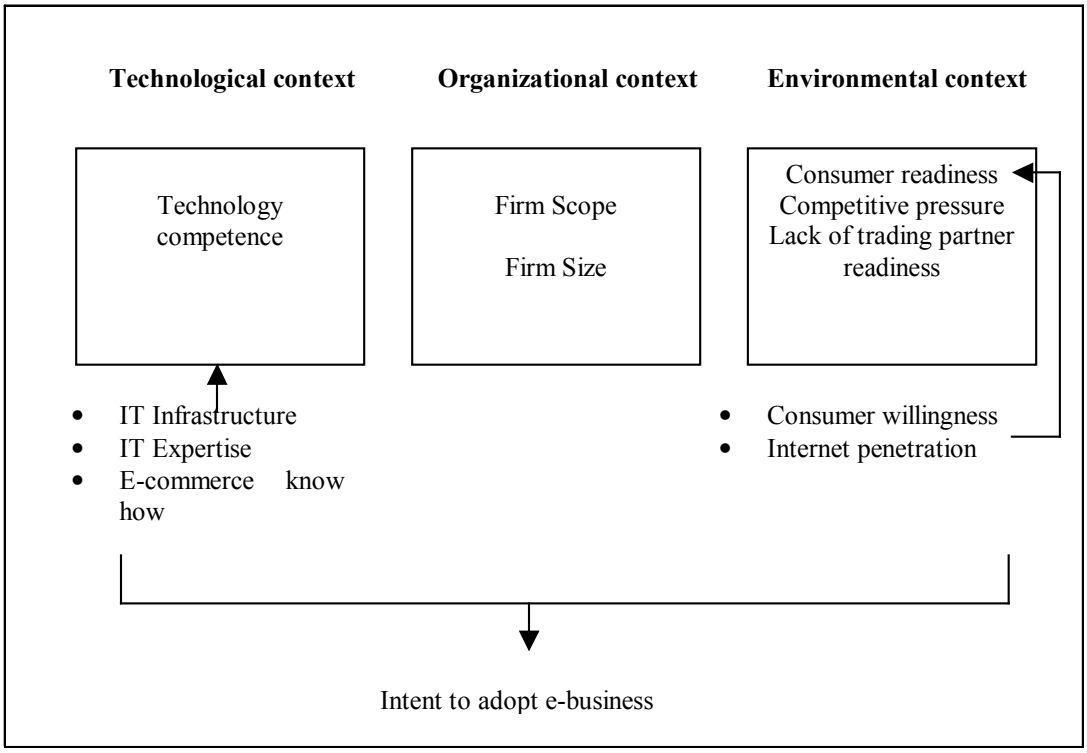

Figure 3: E-commerce, technology-organisation-environment framework
Source: Adapted from Xu et al. 2002, Figure 1, p.1

Small business and e-commerce models

From a small business perspective, Burgess (2002) proposed a website adoption model to assist small businesses to make decisions concerning interacting with customers online. In developing the model, Burgess (2002) took into account the specific characteristics of small businesses and used common steps that have been identified in other strategic IT models as a basis for its development. The model was developed in the context of small businesses in Australia and is generally applicable to any industry. The graphical representation of the Burgess (2002) model in Figure 4 (the business investigation) is the first phase of the model that steps a small business through the planning and actual implementation of a website. The steps following the business investigation are the development of website strategy, determining the level of sophistication, (the actual website content), and implementation (the implementation step is discussed in section 2.5).

Similar to the e-commerce adoption factors discussed so far, the model categorises factors into contextual areas that represent the internal and external environment. The Burgess (2002) model shares similarities with Xu et al's (2002) work. In particular, within the External Forces contextual area there is a focus on market forces such as competitors, new entrants, and customers. The model suggests that an analysis of the external environment includes an investigation of the following factors:

- **Suppliers:** Can an analysis of suppliers assist with customer interactions?
- **Competitors:** What are competitors currently doing?

- **Customers:** Is customer behaviour different on the Internet? Is customer location important? Does it relate to the type of good being offered?
- **New entrants:** The Internet is being seen as a great opportunity for many businesses to expand their market base. Is there a threat of new entrants to the industry?
- **Alliances:** Is there potential to collaborate with other businesses through the Internet?

An analysis of the internal environment includes an investigation of:

- **Overall strategy:** The overall business strategy and its alignment with the decision to develop a website (for instance, does the business want to differentiate itself, reduce cost, grow or create alliances?).
- **Capital:** The resources (money and time) that can be devoted to the process. This is particularly a concern for small businesses.
- **Types of product/services:** Some products or services are seen as being more suited to being sold over the Internet. Can the product or service be tailored to suit the needs of individual customers?
- **Employees:** The level of IT expertise within the business. This affects the ability of the business to implement the website, the understanding of what can be achieved and/or the necessity to obtain external expertise.

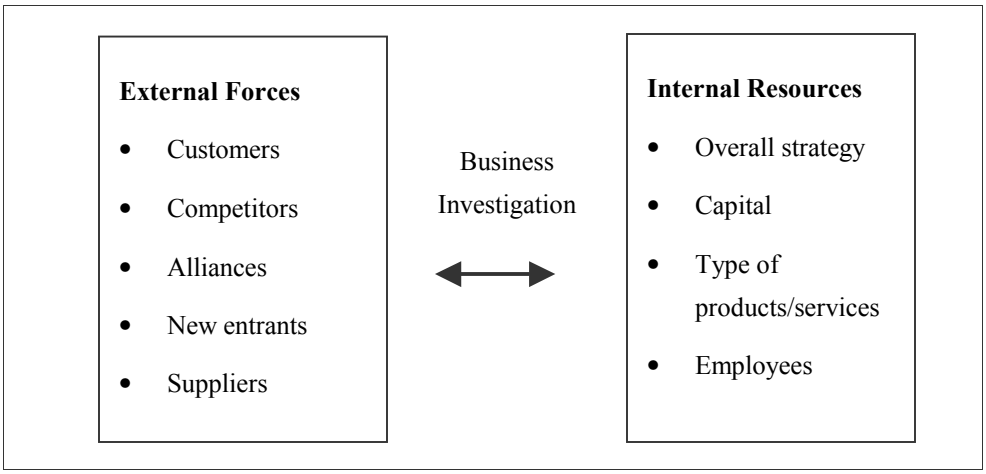

Figure 4: Business investigation phase of B2C website adoption model for small businesses
Source: Adapted from Burgess 2002, Figure 30, p.183-184

Technology-acceptance-model

Davis (1989) proposed a model that helps to explain the process by which users of a certain technology make a decision to use it. It is titled the Technology-Acceptance-Model (TAM) and has been widely applied in the field of information systems to an assorted range of technologies and users. Furthermore, the work of Davis has provided the foundation for other models of information systems adoption. The model suggests that the decision to use a technology is based upon two decisive factors:

- Perceived usefulness: this refers to the perception of the ability of the technology to improve the position of the business.
- Perceived ease-of-use: this refers to the perception of the level of difficulty in applying the technology to enhance the business position. The premise suggests that the easier the technology is to use the more likely the chance of adoption.

As the TAM is capable of explaining user behavior across a range of technologies it can be applied to small business and ICT adoption to provide some useful insights into adoption. When adopting the TAM model one can assert that the adoption of ICTs by small business is dependent on the usefulness of the technology to the business and an assessment of the complexity of using it. A limitation of TAM is that it focuses on the user and therefore does not take into account the complex organizational and environmental influences that affect adoption.

Concerning small businesses, the TAM approach suggests that a business must be aware of how ICTs can be used to enhance the business as well as the affects of ICTs in tourism (such as customer behavior, use of ICTs amongst competitors and intermediaries and so forth), but also have some knowledge of how to use ICTs (which increases the level of ease of using the technology). Cloete et al., (2002) applied the Perceived Usefulness factor of TAM model to e-commerce adoption amongst small manufacturing businesses on the Western Cape of South Africa and found precisely that the potential benefits is one of the key factors in the decision-making process leading to adoption.

Information systems success model

Previous research by DeLone and McLean (1992) suggested that IS success is a multidimensional and interdependent construct that can be measured by six major dimensions. Although this thesis is not necessarily concerned with IS success some of the factors are relevant to the adoption of ICTs and have been identified by studies discussed earlier. The six success factors are:

- Systems quality: referring to the adaptability, reliability and usability of the system.
- Information quality: referring to elements such as information completeness, ease of understanding security and relevance.
- Use: referring to factors such as the nature of use, navigation patterns, number of transactions executed.
- User satisfaction: referring to indicators such as repeat purchases, repeat visits and user surveys.
- Individual impact: referring to the impact of the system on the individual and time saving.
- Organisational impact: concerns measurable elements of success such as cost savings, new markets, and streamlined business processes.

These six major dimensions suggest that the net organizational benefit stems from the quality of the technology and its use. Using these measures of success adds to our understanding of IS management decisions. Like TAM, Delone and Maclean's work has been applied in many contexts and adopted in the field of information systems with a diverse range of technologies. However, relatively little application has taken place in the developing country context. Notwithstanding this, the model provides valuable insights into the key success factors and importantly indicates that benefits are dependant on the quality and relevance of a technology as well as its use.

3.3.3 Tourism and e-commerce model

The previous section discussed e-commerce adoption models from the point of view of small businesses. This section narrows the discussion to e-commerce adoption and tourism businesses.

Focusing on the travel and tourism industry, Gretzel and Fesenmaier (2001) studied the Internet readiness of American convention centres, and visitor bureaus, and proposed an Internet readiness framework. As a part of their study they identified factors that contribute to the capacity of organisations to change. They proposed an alternative evaluation framework that widens the focus from productivity measures to what they refer to as Internet readiness. The Internet readiness framework aims to help tourism organisations understand the necessity for organisational changes if they want to achieve effectiveness in the adoption and use of innovative information technologies. Gretzel and Fesenmaier (2001) identified five independent constructs that have a theoretical impact on an organisation's ability to change.

- **Environment:** Refers to the conditions prevailing in the technological, economical, political, and legal environment.
- **Leadership:** Defines what succeeds and thus determines to a great extent the culture and structure of an organisation, as well as its approach towards change management.
- **Organisational structure:** Describes the established systems, processes, and exchange relationships within organisations. The size of the business (the number of employees), organisational structure, the scope of the business, communication structures, and decision making channels determine the flexibility of an organisation, and therefore its ability to change.
- **Change management:** This refers to how management deals with change. This involves both the change management procedures established within an organisation and the management of the resistance.
- **Organisational culture:** This concerns the organisation's corporate culture and its ability to change. The authors suggest that the culture should be adaptive yet consistent in pursuing long-term goals.

As illustrated in Figure 5 these constructs all impact on one another, and when combined influence an organisations capacity to change. It also provides a useful tool for identifying the extent which tourism

organisations are capable of using the Internet to effectively compete in the new tourism economy. Gretzel and Fesenmaier's (2001) framework differs from the other works described so far because it suggests that the characteristics of a business influence its ability to adopt the Internet, rather than technological factors, market forces, and resource factors. The framework also places emphasis on organisational culture and change management, specifically the ability of an organisation to alter its structures, systems, values, beliefs, goals, and strategies.

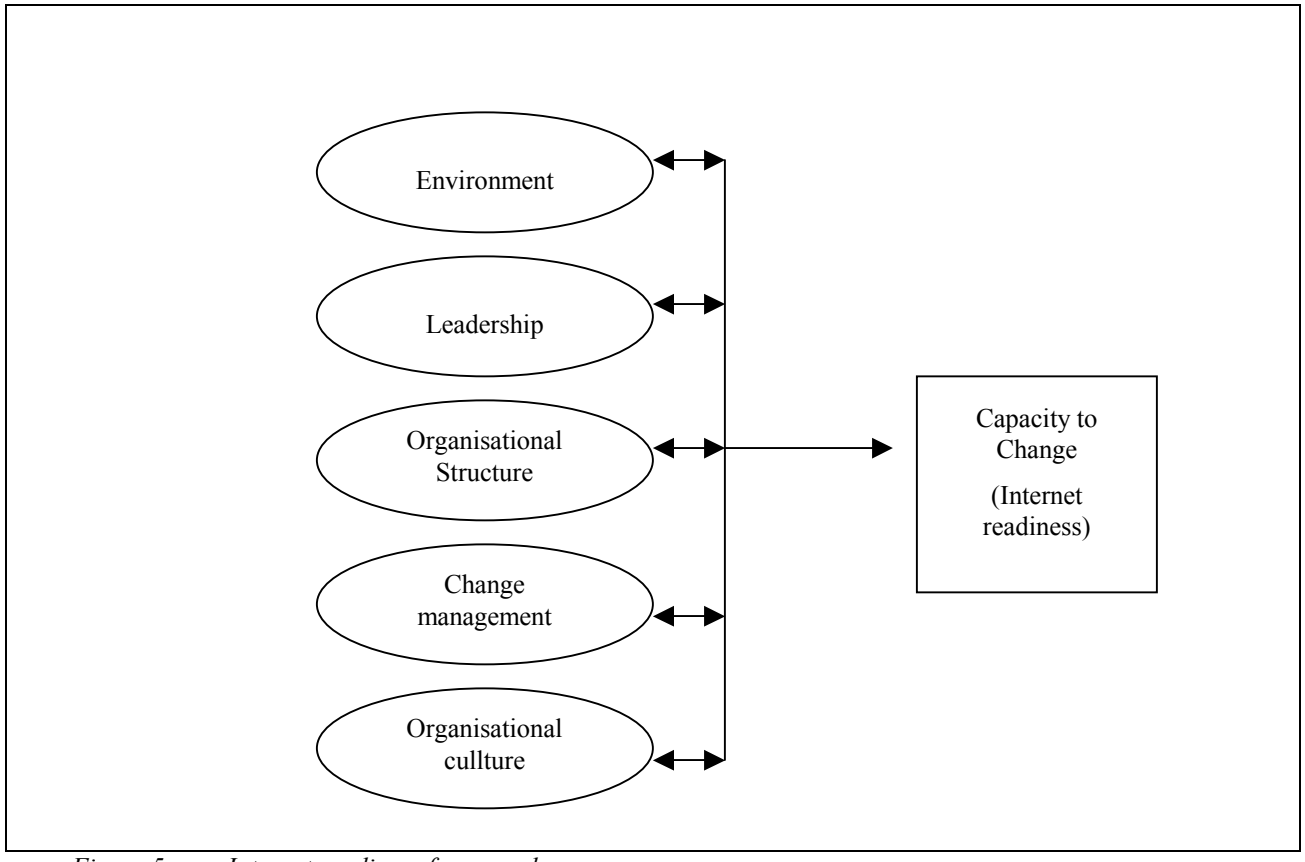

Figure 5: Internet readiness framework
Source: Adapted from Gretzel & Fesenmaier 2001, p.86

3.3.4 Models designed specifically in the context of developing countries

Organisations and e-readiness in South Africa

In the context of businesses in developing countries, Molla and Licker (2005) conducted a study to examine e-commerce adoption amongst businesses. Their study aimed to identify environmental challenges and the limitations that are different to those experienced in developed economies. The authors constructed and empirically tested an e-readiness model called the Perceived E-commerce Readiness Model (PERM). They identified relevant e-commerce, managerial, organisational, and contextual factors that could explain e-

commerce adoption amongst South African businesses. Their model focuses on internal organisational capabilities and the characteristics of individual businesses as well as macro forces. The authors argue that several of the existing models of adoption emphasise the relevance of technological, financial, and legal infrastructure constraints. However, whilst most countries still need to address such problems, improvements (such as better telecommunications infrastructure) over the last few years make consideration of technological constraints no longer the sole determinants of e-commerce adoption.

As can be observed in Figure 6, the model identifies two contextual areas (Perceived Organisational e-Readiness) and (Perceived External e-Readiness) that consist of a number of subsequent factors. The factors within the Perceived Organisational e-Readiness contextual area are consistent with the discussion so far in this chapter. They are manager awareness, commitment, and governance of e-commerce, and resources based factors such as technology and human resources. Within the Perceived External e-Readiness contextual area the factors relate to outside forces such as the government, the market, and the supporting industry. After an assessment of these factors the business then decides whether to adopt e-commerce or not (represented by the flows in the diagram). After the initial adoption is successful more widespread use of e-commerce is employed (the authors refer to this as institutionalisation).

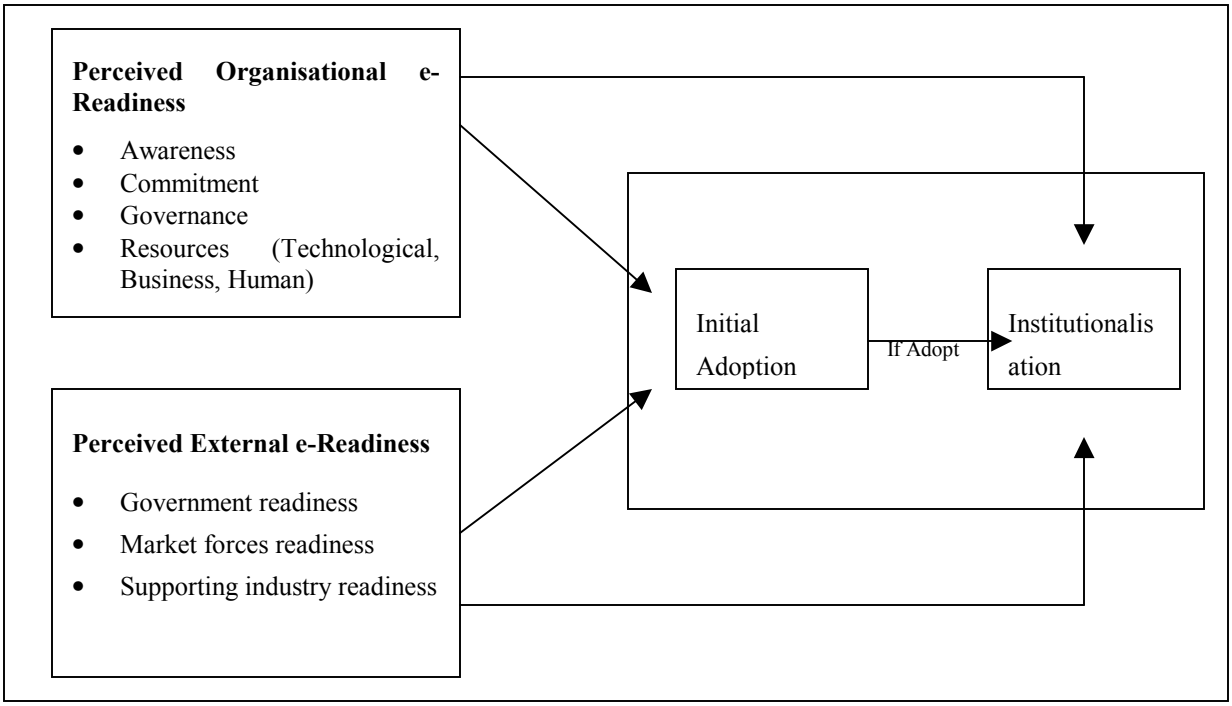

Figure 6: Perceived e-commerce readiness model (PERM)
Source: Adapted from Molla and Licker 2005, Figure 2, p.883

Molla and Linker's (2005) model is one of very few in the context of developing countries that managers can apply to audit their organisational and the external environment. One limitation that the authors acknowledge is that it is not industry specific. Two further findings from the study that are worth noting are:

- Organisational factors especially the human, business and technological resources and awareness are more influential than environmental factors in the initial adoption of e-commerce.
- As organisations adopt e-commerce practices, the advantages from resources become less important and environmental factors, together with commitment and the governance model that organisations install affect e-commerce institutionalisation.

Taking another perspective, Dada (2006) asserts that to obtain a more accurate measurement of e-readiness the focus needs to shift on to the user. That is, looking at the level of the individuals within an organisation using the technology. Dada (2006) merges two existing theories of adoption and e-readiness and developed a conceptual e-readiness tool for users. Molla and Lickers (2005) work was used as a framework and a user focus was added by incorporating Venkatesh's et al. (2003) Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT is not technology specific rather it is an attempt to create a unified model of technology acceptance, integrating various theoretical frameworks into one theory. The UTAUT is better at explaining the use of technology than any of the previous separate models due to its integrated nature. Performance expectancy, effort expectancy, social influence, behavioural intention, and facilitating conditions are included as factors within the organisational context (factors identified by UTAUT). These factors are all influenced by moderating factors (referring to gender, age, experience, and voluntary use – these are all derived from UTAUT). This suggests that by examining these behavioural factors from the different perspectives of personal characteristics (gender, age, experience, and voluntary use) that e-commerce adoption can be explained. It may also be useful for a manager to apply this model to themselves and to the employees that e-commerce will affect. Within the environmental context, e-readiness and other macro assessment tools are listed as factors. In other words, e-readiness tools are useful generic instruments that can be used to assess the macro environment.

Figure 7 illustrates Dada's (2006) synthesis of the works by Molla and Licker (2005) and Venkatesh et al. (2003). Similar to Molla and Lickers (2005) work, the steps from initial adoption to institutionalisation are dependant on two contextual areas. However, prior to initial adoption Dada (2006) argues that an analysis of the macro environment and organisational factors (such as those identified by UTAUT) are the factors that influence technology adoption.

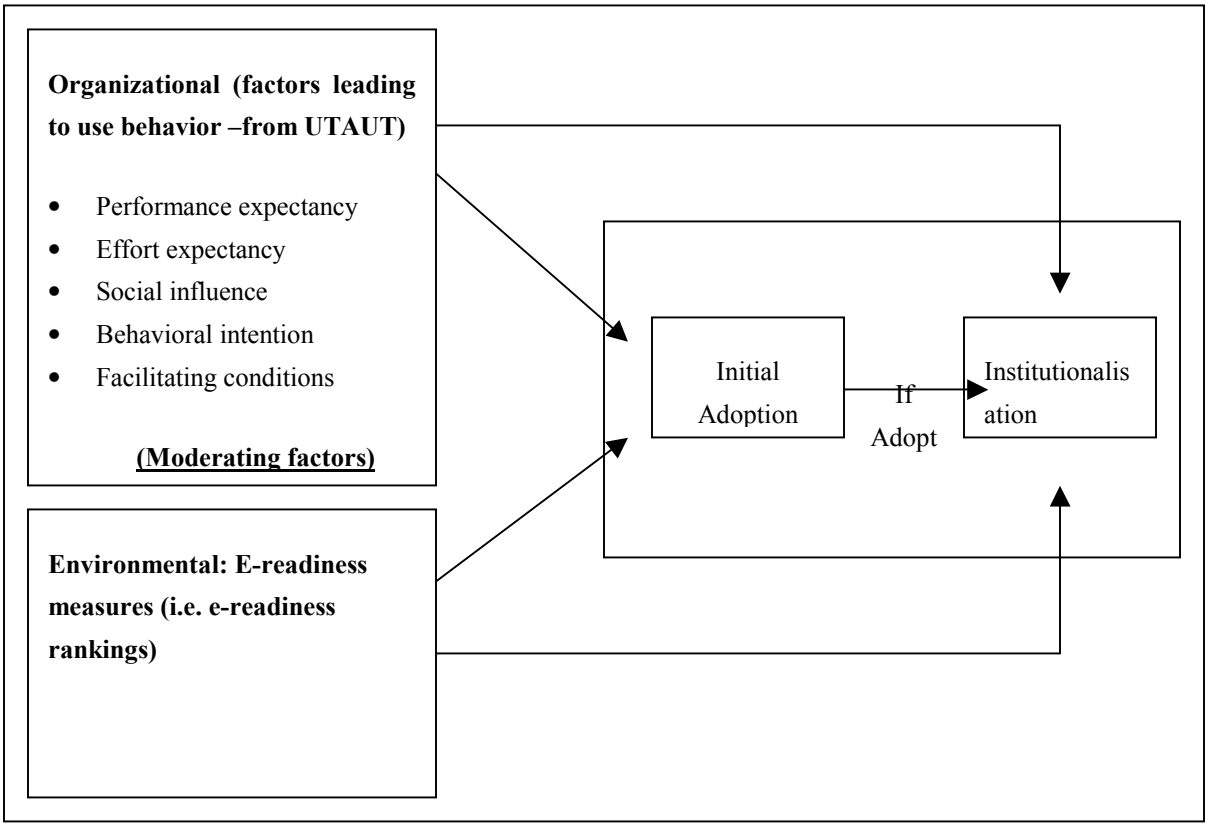

Figure 7: User focused e-readiness framework
Source: Adapted from Dada 2006, Figure 3, p.8

3.3.5 Summary of models

This section discussed various types of business investigation models and frameworks. The discussion covered various areas, ranging from the macro environmental to the small business level. One common theme from the discussion is that the models and frameworks imply that adoption is a complex issue, and that collectively a number of different internal and external factors contribute to the readiness of a business. There is also some overlapping between factors and their place in different contextual areas. This suggests that any e-readiness framework focusing on STEs needs to concentrate on reflecting on internal and external factors that envelope the business. Table 12 illustrates the range of areas covered by each of the models and frameworks discussed.

Table 12: Areas covered by models and frameworks discussed

		Austin (1990)	Hofstede (1900;1991)	Xu et al. (2002)	Burgess (2002)	Davis (1989)	DeLone & McLean (1992)	Gretzel & Fesenmaier (2001)	Molla & Licker (2005)	Dada (2006)
Environmental / Country (macro)	Economic	X						X		
	Political/governmental	X						X	X	
	Cultural	X	X							
	Demographic	X								
	E-readiness									X

	Supporting industry readiness								X	
Organisational	Capital				X					
	Scope/overall strategy			X	X					
	Size			X						
	Products/services				X					
	Employees				X				X	
	Managerial (awareness, commitment, governance, leadership)					X		X	X	
	Performance, effort, behavioural					X	X			X
	Social & facilitating conditions									X
	Organisational structure & culture						X	X		
	Change management							X		
Market	Market forces readiness								X	
	Competitors			X	X					
	Customers			X	X					
	Alliances				X					
	New entrants				X					
	Suppliers readiness			X	X					
Technological	IT infrastructure			X					X	
	IT expertise			X						
	E-commerce know-how					X			X	

3.4 Opportunities created by the Internet

The previous section discussed technology adoption tools and the factors that collectively contribute to the e-readiness of a small enterprise. But, what are managers to do once they have audited their business environment? How do they translate identified barriers and opportunities into a strategy? The next step is to develop a strategy that can be employed based on the level of e-readiness.

3.4.1 ICDT model

Angehrn (1997) proposed a model (the ICDT model) that categorises the opportunities brought about by the Internet into four different virtual spaces. It is a model that can be used to detect opportunities for use of the Internet at the industry level, as well as individual companies. The spaces are the Virtual Information Space, Virtual Communication Space, Virtual Transaction Space, and Virtual Distribution Space. The

ICDT model is generic and applies to various industries. The four spaces are treated separately because they correspond to different strategic objectives and require different types of investment and organisational adjustments.

The Information Space

This space refers to the different ways a business can provide information online. Exploiting this space means providing the information that customers need, such as product and company contact information. The literature suggests that businesses in developing countries are exploiting this space in three simple ways: they are, basic websites, promotion on portals, and the use of small online advertisements (Asia Foundation. 2005; Zeitlyn & Barone 2004). This space is important because tourism is an information-based and information-intensive industry and continues to grow as the most popular medium for researching and planning tourism purchases (Collins, Buhalis & Peters 2003). Also, trust is a barrier to e-commerce in developing countries (UNCTAD 2004), thus a business with an effective information strategy can overcome or reduce the impact of this barrier by providing information about the enterprise online.

The Communication Space

This space refers to the exchange of information between various business stakeholders: suppliers, customers, and strategic allies. Unlike the Information Space, information in the Communication Space flows in more than one direction. Email is the most widely adopted Communication Space tool adopted by small businesses in developing countries (Duncombe 1999; Tanburn & Singh 2001). It is also the most cost effective and easily adopted e-commerce activity (Payne 2002). Adopting email for communication with customers may simply mean accessing the Internet from a central access point (such as a telecentre or Internet café). Nevertheless, despite the ease of implementing this tool, consideration must be given to promoting the email address and instilling a good level of customer service. Re-engineering of the reservation process may also be required (Frey, Schegg & Murphy 2003; Murphy & Tan 2003).

The Distribution Space

This space refers to the actual distribution of products. The Distribution Space creates new channels for businesses to distribute products and services (digital goods and content such as software, reports and so forth). It also allows businesses to reduce costs, differentiate or improve the quality or innovation of products and services by distributing products via the Internet (Angehrn 1997). It has already been observed that certain products and services are more suited than others to the Internet (such as digitised and information intensive products).

The Transaction Space

The main use of this space is to carry out payments for a transaction online. Small businesses in developing countries face many obstacles to offering online payments (lack of uniform payment systems, poor logistical systems, and financial institutions that cannot handle online transactions). Portals have been adopted as a way of overcoming these barriers (Kuwayama 2001).

3.4.2 Sophistication of the spaces

Each space can be further classified in terms of its technical sophistication. This will depend on the available resources or level of *'e-readiness'*. Figure 8 illustrates the ICDT model and the different levels of sophistication and customisation. The diagram displays the ICDT model (on the left) and illustrates (on the right) the different levels of sophistication and customisation an e-commerce strategy may take. The simplest presence is low customisation and low sophistication. The most advanced presence is high customisation and high sophistication. This can be applied to each of the four spaces. For instance, a simple Information Space presence (where e-readiness is low) can be established by simply publishing advertising material related to a product or service on a travel portal site. While an advanced Information Space presence (where e-readiness is higher) might include a sophisticated business website with multimedia presentations.

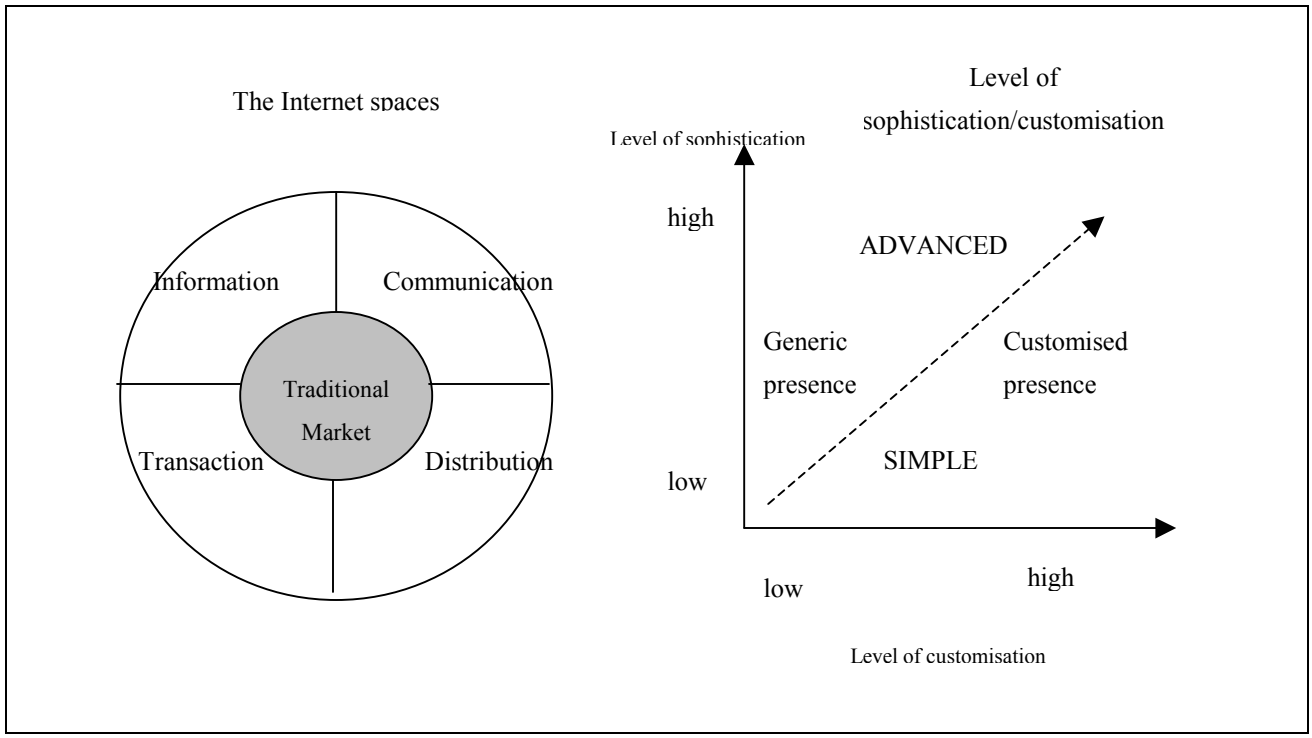

Figure 8: The ICDT model
Source: Adapted from Angerhn 1997, Figure 1, p.362 & Figure 2, p.364

O'Brien (1998) applied the ICDT model to the tourism industry by investigating the likely disintermediation effects (where the Internet has allowed customers to bypass intermediaries) of e-commerce on retail travel agents. He also examined how travel agents could take advantage of any potential opportunities, and how to minimise potential threats through the use of information technology. Although travel agents operate in a different manner to other tourism enterprises such as hotels and tour operators (travel agents are usually located in the location of the customer, and offer a 'bundle' of third-party services), it is useful to look at the ways that they can exploit the spaces created by the Internet. O'Brien (1998) classified the new opportunities created by the Internet into the four spaces described by Angehrn (1998). Figure 9 displays the ICDT model applied to the travel industry.

O'Brien's use of the ICDT model however, does not focus on the different levels of sophistication that these spaces may take. For instance, in the Information Space, the author identifies product information, destination information, availability information, pricing information and tourism packages (bundles of tourism services) as the types of information that can be offered. However, this information can be provided in many different ways (through websites, email, portal sites, and so forth).

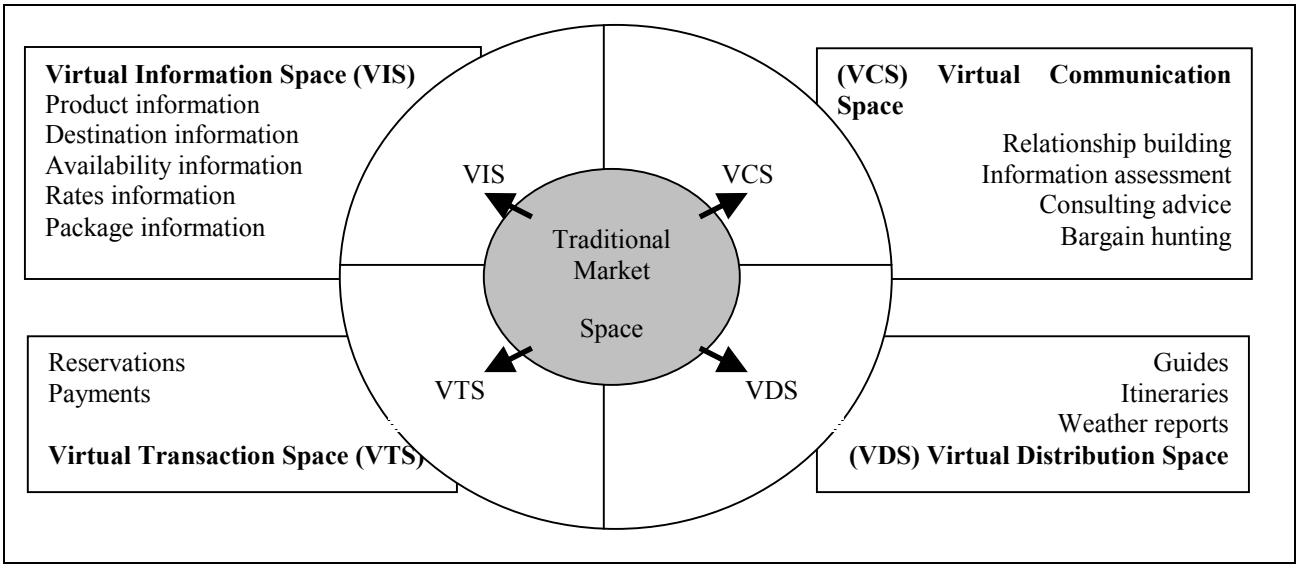

Figure 9: Tourism and the ICDT model
Source: Adapted from O'Brien 1998, Figure 2, p.72

3.4.3 Levels of e-commerce sophistication

Since the introduction of the Internet many authors have described the stages of Internet adoption. These stages progress from low-level e-commerce activities such as email and static web pages, then subsequently onto online orders, and next to online transactions. The final phase is total integration of e-commerce activities into the business. A criticism of these models is that they do not lead small businesses systematically through the planning stages necessary to get them to the stage where they are able to select what level of e-commerce is most appropriate (Davidson, Burgess & Sellitto 2006). Two staged models are discussed here. The first (Rao, Metts & Monge 2003) focuses on e-commerce adoption generally (it is more aligned to e-commerce in developing countries). The second model (Duncombe et al. 2005) is specific to small businesses in developing countries, and is discussed in more detail.

A staged model to e-commerce adoption

In the context of SMEs, Rao et al. (2003) proposed a four-stage e-commerce development model that describes the progress of Internet adoption. Each stage builds on the previous level of sophistication until a business has integrated the Internet into the main business processes. The four stages are:

The presence stage: This is the first stage. It includes the use of the Internet such as providing content online, the development of online catalogues, and using email. This stage is basically a window to the Internet, and no online integration with the usual business processes takes place.

The two-way communications stage: This involves communicating with customers and suppliers, or ordering online. It is therefore a two-way communication exchange and can be used to offer online ordering and perform market research. No transactions take place at this stage.

The online financial transactions stage: This involves financial transactions (both selling and buying). Transactions may take place with both customers (B2C) and businesses (B2B). This stage can also be used to provide online auctions and build online communities.

The enterprise integration stage: This is where the business processes are completely integrated with the online business so that they are virtually indistinguishable. This usually requires high levels of collaboration between business partners.

Although their model appears to be sequential, Rao et al. (2003 p.15) state that a business may in fact 'enter' at any stage: *'As technology and e-commerce awareness increases it can be anticipated that a given company may enter at a later stage, leapfrogging earlier stages in order to accelerate its development process. When a company does this, it is anticipated that all previous stage issues must be addressed.'*

'Steps' to e-commerce

Focusing on developing countries, Duncombe et al (2005) developed a model that outlines the 'steps' to e-commerce. It describes the different stages of e-commerce development that small enterprises may follow. The 'steps' approach also outlines the main types of business activities that may be performed at each step, and is useful to identify the type of assistance required. The steps are illustrated in Figure 10.

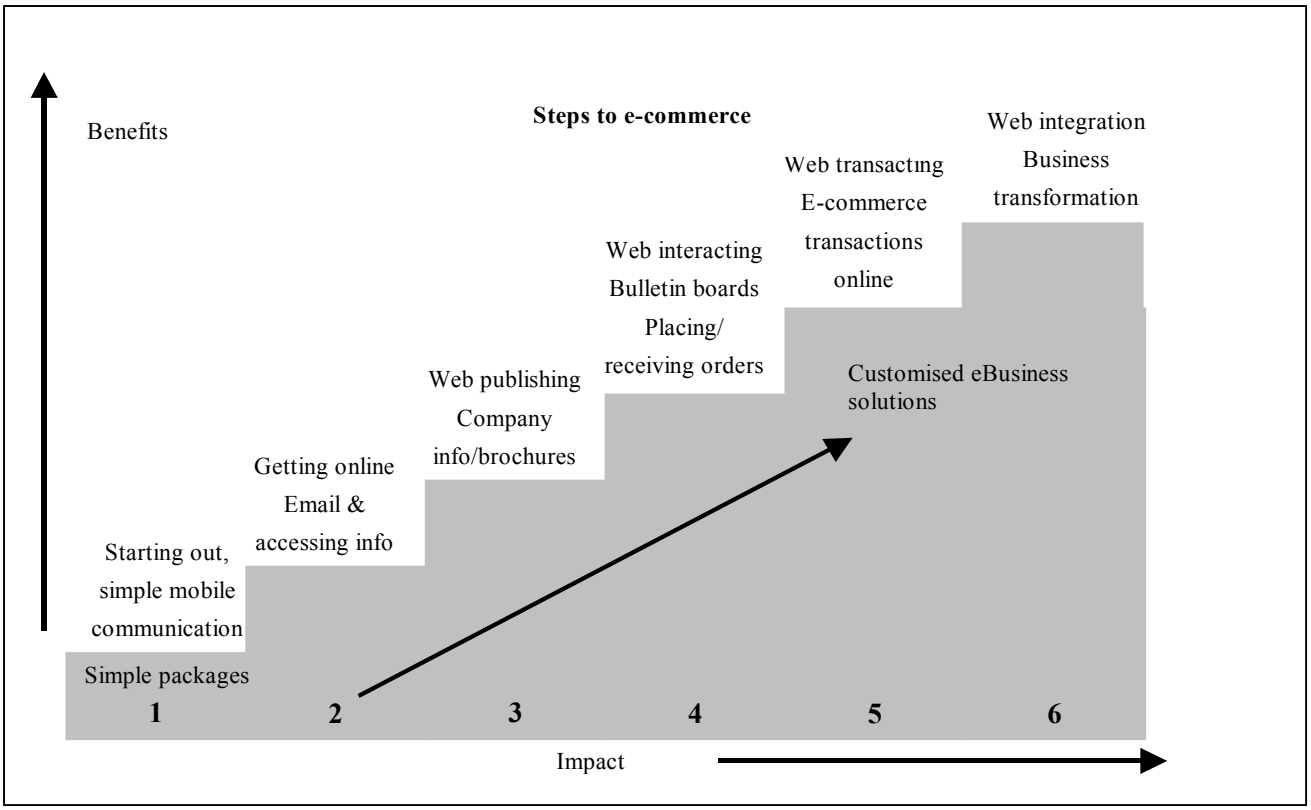

Figure 10: Steps to e-commerce
Source: Adapted from Duncombe et al. 2005, p.7

The major difference between the 'steps' model and the others is that the steps actually seem achievable (based on the discussion of small enterprises and e-commerce in this thesis so far). That is, one can envisage a small business progressing from Step 1 to at least Step 4. Table 13 maps the steps along with the drivers, benefits, the costs, and the overall impact. It is interesting to note that the higher level of sophistication (from step one through to step six) the higher the potential benefits as well as the costs.

Table 13: Steps to e-commerce

Steps to e-commerce	Description	Market drivers	Benefits	Costs	Potential overall impact
Step1: Starting Out	The use of mobile phones - mobile phones offer a number of key advantages over fixed line communications for small businesses. They also provide greater connectivity and network coverage than landlines.	Customers, suppliers collaborators, support agencies, employees	Improved communications	Low	High benefits and relatively low costs
Step 2: Getting Online	Basic Internet activities such as email - for this the Internet can be accessed internally but also from an Internet café or telecentre.	Customers, suppliers, collaborators, support agencies, employees	Improved communications	Moderate	High benefits and moderate costs
Step 3: Web Publishing	Online publishing. For instance, a simple online brochure can be used to promote a business, with some information about products, services and contact details.	Customers, marketplace	Improved marketing, branding and presentation Easily maintained	Moderate	Moderate benefits and moderate costs
Step 4: Web Interacting	Interacting with outside entities such as customers and suppliers. Online interaction will allow customers and suppliers the opportunity to view product details in more depth. It may even involve customers and suppliers ordering online. Payments and delivery are conducted offline.	Customers, suppliers, collaborators, support agencies, employees	Improved internal communication, marketing and knowledge of market and customers	Moderate	Relatively high benefits with moderate costs
Step 5: Web Transacting	Full e-commerce capability, which includes payment online. For B2C this will involve making use of secure credit card payment systems (or any other payment method used by customers) for B2B it will involve payment through	Customers	Improved speed and convenience	High costs	Relatively low benefits with high costs

	secure banking systems.				
Step 6: Web Integration	Online integration involves incorporation with processes such as sales and marketing with internal processes.	Customers, suppliers	Improved business processes, customer/ supplier relationships, reduced operating costs	Very high	Very high costs with high benefits

Source: Adapted from Duncombe et al. 2005, Table 2, p.21

3.4.4 Discussion of the use of the Internet

Taking into consideration the discourse in the previous chapter it is clear that the e-commerce activities of small enterprises in developing countries can be categorised in the earlier or infant stages of these models. It is therefore reasonable to conclude that small business e-commerce in developing countries can be generally described as simple open information and communication exchanges. Along these lines, (Tetelman 2003 p.285) posits that:

> *Overall, it appears that electronic marketplaces in developing countries are most viable as open information exchanges rather than as transaction-oriented marketplaces. This is due to the fact that transaction marketplaces depend on a high degree of confidence between buyers and sellers concerning issues such as product specifications and on infrastructures capable of handling electronic payment processing and order fulfillment.*

At the moment this makes a strong argument for researchers to focus on simple e-commerce activities. This is important because it suggests that any framework developed for small business in developing counties should assess the readiness of a small enterprise to adopt simple entry-level activities. In support of this, a study by Moodley and Morris (2004) on B2B e-commerce in the South African garment trade found that existing models of e-commerce (focusing on the integration of transaction activities) are not relevant. They found that email was the most popular use of the Internet used by all businesses. Email was used to facilitate communication, data exchange and integration with *existing* rather than *new* customers and suppliers or to support transactions. They argue that a more inclusive and flexible model of e-commerce should be utilised, one that does not focus on the integration of transaction activities.

> *Such a model would give more emphasis to inter-firm communication and information processing, to using e-commerce to organize and maintain a network of business relationships, and for supporting bilateral relationships with existing customers and suppliers.* (Moodley & Morris 2004 p.171)

3.4.5 Summary of the spaces created by the Internet and the level of Sophistication

This section began by categorising the different opportunities created by the Internet. These were described as the Information Space, Communication Space, Distribution Space, and the Transaction Space. It was observed that these spaces might be exploited in different ways depending on the level of 'e-readiness'. These spaces were discussed in regards to the opportunities in the tourism industry. This section also discussed the different levels of sophistication that an online presence may take. In particular Duncombe et al's (2005) 'steps' model was used to discuss the different stages of e-commerce because of its relevance in developing countries. The next section adds another dimension to the discussion of e-commerce adoption. It describes actual models that can be used to decide which areas of the Internet to exploit and the level of sophistication the strategy may take. In essence, it is a synthesis of many of the themes discussed in this chapter - the business investigation (the e-readiness assessment), the different ways the Internet can be exploited (Information, Communication, and Transaction Spaces), and the different levels of sophistication.

3.5 Strategies and guides for small enterprises in developing countries

The previous section discussed the opportunities created by the Internet and the various levels of e-commerce sophistication. This section will discuss guides for small enterprises in developing countries that have been developed to assist in the creation of an e-commerce strategy. It is important to note that there is little literature on the how small enterprises in developing countries may exploit the Internet. That which does exist is usually similar to an e-commerce primer, rather than any model or guide that can be used for making decisions. For instance, UNCTAD (2004) developed a guide for SMEs in developing countries to assist managers to make use of the Internet for effective international trade. It discusses various aspects of using the Internet, and a significant portion is devoted to tourism enterprises. However, the report operates on a 'one-size fits all' solution. Furthermore, little attention is given to systematically auditing the business environment to assess the opportunities and threats, and to make decisions based on that. Notwithstanding this, the UNCTAD (2004) guide for SMEs provides valuable information concerning how ICTs may be best exploited by SME for international trade. Some of the more innovative suggestions provide by the guide include reducing telecommunications costs using IP telephony, using instant messaging, online collaboration tools for real-time advanced communications, developing Internet-based business models and export readiness. Even though tourism receives some attention in this guide, one area that is not discussed however is sector support strategies and how they may be exploited. In other words, it is of the perspective that the SME exists in a vacuum.

Duncombe et al. (2005) go one step further to the 'one-size fits all' solution, and propose a number of questions and descriptive measures that can be asked by small enterprises to assist decision making. The next section discusses the work of Duncombe et al. (2005) at length.

3.5.1 Small enterprise development: A handbook for entrepreneurs in developing countries

Duncombe et al. (2005) suggest a number of questions that can be asked of a business to assist them to make decisions about e-commerce. The authors focus on a number of key areas that affect the business. These are similar areas to those discussed in this chapter, and are discussed here in detail.

The market

- Are your main competitors marketing or selling similar products or services over the Internet?
- Do your main customers or suppliers have access to the Internet, or are they seeking to use e-commerce?

Here if an enterprise predominantly answers 'Yes', then the authors suggest that the enterprise considers how far behind, ahead, or in line it is with competitors, as well as customers and suppliers. If the answer is 'No' then e-commerce may not be appropriate or necessary at the time.

Proximity

- Where are your business and main customers and suppliers located?

Here an enterprise analyses its customers' or suppliers' location to determine if the enterprise itself is in a suitably located area. If the answer is 'Yes', then there may be potential for e-commerce. If customers or suppliers are located in the city, and the enterprise is located in a rural area, then the authors suggest enterprises may want to consider using a mobile phone for communication. It may also choose to make use of a telecentre (in the previous chapter it was observed that telecentres offer resource poor enterprises particularly those in rural areas access to telecommunications).

The products and services offered

- Do your products or services have a broad or niche market, and are they suitable for marketing or selling over the Internet?

As observed in the previous chapter, more specialised products or services are more suited to the Internet. Here it is also suggested that if the products or services are aimed at oversupplied markets then the potential for e-commerce might be low.

Existing customers

- Are your customers businesses or individual consumers? If they are individual customers, do they have high or low disposable incomes?
- Are your business customer's small or large enterprises?
- Are your business customers operating in sectors that have high or low potential for e-commerce?

Here the authors suggest that if an enterprise's customers are large or medium-scale businesses operating in high potential sectors or if they are consumers with high disposable incomes then there is high potential for e-commerce.

The business

- Is your enterprise new or well established?
- How many employees do you have?
- Is your enterprise expanding, decreasing, or reasonably stable?
- What was the turnover in the last financial year?

Here the authors suggest that if the enterprise is well established, then there is a greater chance of there being available resources for investment in e-commerce. On the other hand, the larger the number of employees the more difficult it is to transform skills and attitudes of employees. Smaller enterprises employing two to five persons may find it easier to adapt, although they are more likely to suffer from a lack of resources.

Access to ICTs

- Do you currently have access to the Internet from within your business premises or another access point?
- What level of IT and e-commerce are you using (website, email, networked pc's)?

If the enterprise already has adopted ICTs (such as a computer) then there is greater potential to make use of the Internet. However, if it is yet to make use of ICTs then there needs to be careful consideration concerning what type of ICTs would be most beneficial.

ICT and business skills

- Do you or your employees have ICT skills?
- Is there access to expertise within the business or do you depend upon external assistance?

The authors posit that enthusiasm (commitment and leadership) is probably the most important skill regarding any e-commerce initiative. Existing ICT skills greatly increase the potential for e-commerce.

The business environment

- Are local telecommunication services, legal, regulatory, and banking requirements for e-commerce ready?
- Concerning the distribution of physical goods, to what extent can transport and delivery systems meet the needs of potential e-commerce customers?

Taking the external environment into consideration, the authors suggest that the ability of any enterprise to climb the 'steps' to e-commerce (referring to the 'steps' staged approach) will depend on the constraints that exist locally (such as available skills and support).

The finances

- How financially stable is your business and what financial resources exist?
- Are you aware of the total financial cost of e-commerce and have you performed a cost-benefit analysis?

Here the authors suggest that it is necessary that enterprises have access to financial resources to make the initial investment, but enterprises also need to be able to generate sufficient revenue to sustain e-commerce activities. Enterprises also need to be aware of the recurring costs.

Duncombe's work began by examining the market, it then moves towards looking at the businesses resource in particular ICT capacity and capital. One of the final areas is examining the overarching business environment. One area that is omitted by these suggestions is reference to relevant sector support strategies that a small business may wish to draw upon. Some examples include training and credit schemes and have been discussed in section 2.4.2.

A guide for development professionals

On a smaller scale Payne (2002) developed a table (see Table 14) that suggests different strategy options for small business in developing countries. The table is useful because it identifies what options exist based on the technology available. Similar to the suggestions by Duncombe (2005) the table suggests mobile phone technologies for basic activities such as email.

The table is also a 'decision support tool' that indicates the type of infrastructure that is needed for each level of sophistication. Payne (2002) suggests that Internet access can be achieved on a shared basis or within the business. For simple uses of the Internet only a slow Internet connection is required. However, for a business to move to more integrated activities it requires access to a computer with a medium to fast Internet speed. In Chapter Two it was observed that infrastructure constraints are one of the main e-commerce adoption barriers. This suggests that very few businesses are able to progress past entry-level activities.

Table 14: A guide to how the Internet may be used

E-commerce technique	Internet access		Instrument for access		
	Slow	Medium to fast	Computer (PC)	Mobile Phone	PDA*
Email (simple)	OK	OK	OK	OK	OK
Email (complex)	-	OK	OK	-	Maybe
Newsgroups, bulletin boards, chat rooms	OK	OK	OK	Maybe	OK
Information database (stand-alone or simple updates)	OK	OK	OK	Maybe if adapted	Maybe if adapted
Software	OK	OK	OK	Unlikely	Unlikely but

applications (stand-alone or simple updates)					possible
Website (brochure ware, simple)	OK	OK	OK	Maybe if adapted	Maybe
Web-based applications (eg. product ordering/tracking)	-	OK	OK	Maybe if adapted	Maybe
Voice over Internet (VoIP)	-	OK	OK	Maybe	Maybe

* Personal digital assistant
Source: Adapted from Payne 2002, Figure 4, p.23

3.5.2 Summary of guides for small enterprises in developing countries

This section discussed two guides that can be used by small businesses to assess their position and make some decisions concerning e-commerce. Duncombe et al. (2005) guide in particular provided in-depth descriptive measures that can be used to make informed decisions. Payne's (2002) guide suggested how an enterprise may exploit the Internet based on its type of Internet connection. The next section will discuss implementation issues that a small business must consider before actually adopting e-commerce.

3.6 Implementation issues

Once a business has performed a business investigation and identified how it may exploit the Internet, the business is faced with a number of implementation issues. This is a step that is not well represented in the literature. In fact, few models and frameworks discussed so far go beyond the planning stage to provide guidance on actual implementation issues. One model that does focus on implementation issues is the Burgess (2002) B2C web interaction model. This model was discussed in earlier relating to its business investigation phase. At the implementation level, the model suggests three factors that need consideration to complete the implementation of e-commerce. They are Technical Issues, which refers to issues such as hardware and software options; Promotion, which refers to the advertising of the new online venture; and Evaluation, which refers to an assessment of the performance of e-commerce. These three factors are discussed here with particular attention given to small businesses in developing countries.

3.6.1 Technical considerations

In Chapter Two it was observed that small businesses in developing countries face many technical challenges to adopting e-commerce. In this section, some of the major technical issues that small businesses in developing countries encounter will be discussed. Concerning the actual type of Internet connection, businesses in developing countries will need to consider if they need an Internet connection (if their only

use will be email, it could be accessed from a public Internet access point), and if so what type of connection? Other technical issues need consideration such as software and hardware options, hosting and ISP selection, as well as maintenance of the online presence. This section will look at some of the major technical issues.

Accessing telecommunications

When implementing the Internet it is important to consider the technical dimensions of how the Internet will be used. For instance, a business hosting a website must consider that the website should generally be available to customers 24 hours per day, seven days per week. Even businesses only planning to use email communication and receive bookings online will need access to a reliable connection. This may pose a problem for some businesses where even basic telephone connections are a luxury and telecommunication costs are high. Furthermore, a business without access to a telephone line may have to wait months or even years for a line to be put in place (Murelli 2002).

Before a business decides to adopt new technology it should consider the types of technology that are available in its location as well as possible alternatives. Along these lines, James (2003 p.466) argues that there is no reason why ICT innovations in developing countries have to take the same path as in developed countries *'where they are shaped by the prevailing socio-economic circumstances, such as high per capita incomes, skilled labour and an urban-based population*'. For example, VSATs (Very Small Aperture Terminal) have been used in remote areas, where the quality of the telephone lines are poor, as a reliable means of communication, as an alternative to traditional fixed line connections (Bajaj & Nag 1999; Goodman et al. 2000). CORDects Wireless Loop Protocol is another alternative. This is a system that connects subscribers to the public network with radio signals. The technology is claimed to bring down the cost of 'per line' telephone connection from $US 910 to $US 210 and facilitates both voice and data transmission (James 2003). Although promising, these alternative models of Internet adoption require careful consideration in the context of small business. Two factors that need consideration are (Wicklein 1998):

- The way in which the technology will fit with traditional business practices and the local telecommunications system. Will it work under local conditions? Is it adaptive?
- Is a needed support system required to keep the technology functioning? To what degree can the technology operate on its own, to do its job with few or no other supporting facilities or devices to aid in its function. Businesses should consider if the cost of the technology rises because of the need for supporting devices

Types of Internet connections

In the Asia Foundation studies carried out in 2002 it was found that by far the majority of small businesses were using dial-up connections, a small portion used cable, and a few small businesses used ADSL, leased lines, and satellite-dishes. This adds weight to the argument that small businesses should carefully consider the advantages and disadvantages of adopting alternative Internet technologies.

Internet Service Providers

ISPs connect businesses and individuals to the Internet. There are literally thousands of ISPs available (however gaining access to these services in the developing world is not always achievable), and most offer basic service such as access, domain name services, and electronic mail (Patel 2003). Concerning access to the Internet, a technical consideration that requires attention by small businesses is the number of ISPs that they will subscribe to. There is evidence to suggest that for some small businesses that more than one ISP is appropriate. Why? When one connection fails the business can use the second as a backup. This approach is more common in countries where the telecommunications infrastructure is considered very unreliable. For instance, evidence from the Asia Foundation (2005) studies showed that 18 percent of businesses surveyed in Indonesia used two ISPs in order to ensure better access and continuous connection. While of the 21 percent of businesses surveyed (that were Internet users) in Thailand had two ISPs, while 7.2 percent had three ISPs.

Hosting service

For businesses that choose to develop a website, one very important question is who will host it? Every website must be physically hosted on a web server, which is a computer permanently connected to the Internet through a dedicated (usually high speed) line. Web servers need permanent technical attention. Small businesses do not need to necessarily own and run their own server within the business premises, but may 'borrow' space on servers from specialised companies known as hosts. In website hosting, there are important economies of scale and USA based hosts tend to have the most competitive offers (UNCTAD 2004).

Hosting content on a server located in a developed country may be the best option for some enterprises in developing countries (UNCTAD 2003). For instance, a study of thirty-three websites from businesses in Nepal, Nicaragua, and Tanzania found that nearly half were hosted in the USA (Wresch 2003). Therefore, a response to the weak local infrastructure is to use hosting services located elsewhere (Wresch 2003). In particular it may be preferable to host information about a tourist destination on a server located in a country of the target market that a business is trying to attract as download times will be faster. When making decisions about how to host a website, small businesses have three broad hosting options (UNCTAD 2004):

- To rent server space from a web host. This is typically the preferred option.
- To own one's own server but to have it on the premises of the web host.
- To develop one's own server and dedicated line on one's own premises. This is a sophisticated and expensive solution that is appreciated by technically minded people. This solution can only be justified in rare cases of major websites.

Lake (2000) points out that an international host can raise the credibility of a business, and reduces fears that customers may have of purchasing from a business in a developing country. However, where websites

are hosted locally the talent and expertise used can be utilised by other local individuals and businesses. In other words, the build up of human capital benefits society.

Off-the-shelf vs. Open source software (OSS)

A benefit of the Internet is that it can be accessed with different operating systems such as Windows, Apple Macintosh OS, open-source Linux as well as other open-source operating systems. This section will discuss briefly the two software options that small businesses in developing countries typically face when implementing e-commerce. The first option is off-the-shelf packages (or propriety software[5]). The second is making use of open source software (OSS).

Off-the-shelf packages

In terms of getting online and making use of the Internet, there are a number of software tools that can be used. Microsoft Internet Explorer and Netscape Navigator are just two of the more traditionally popular solutions. However, recently the popularity of these tools has been challenged by OSS solutions, such as Mozilla and Opera. Packaged software can also be used to set up simple retail stores using wizards (Burgess & Schauder 2001). Again, when selecting the software to be adopted, small businesses need to consider the adaptiveness and available support for the software.

Open source software (OSS)

> *The rapid spread of open source software offers considerable potential to reduce the cost of software for users in developing countries and allow greater adaptation of software to needs in developing countries.* (Marker, McNamara & Wallace 2002 p.19)

OSS software is seen as a useful alternative for small businesses in developing countries because of the benefits it provides. OSS often produces reliable, secure, and upgradeable solutions at a comparably low cost to users (Osterwalder, Rossi & Dong 2002; Payne 2002). In Kenya, OSS suits the needs of SMEs at a price of only US$ 6.50 compared to US$ 100 for the Windows operating system (James 2003). OSS can also prolong the use of computers because computers do not need to be updated as frequently as when working with propriety products (Jeffrey 2002). As OSS applications are not the property of a single entity, using them makes the user less dependent. This is especially important in developing countries where small businesses running on pirated software face the risk of becoming dependent on essential infrastructure they cannot sustain. Additionally, OSS ensures that specialised knowledge that was generated with public resources is not kept as a protected secret.

Method of payment

In Chapter Two one factor that was identified as important was that of financial institution readiness. This referred to the actual readiness of financial institutions to perform online transactions. At the technical level however, there are a number of other concerns and many questions that need to be addressed. This is

[5] Pirated software, although widespread in developing countries is not discussed here.

because at present there is no one standard method of electronic payments. This becomes particularly important in international tourism where an STE may be dealing with customers from all over the world. Costa (2001) suggests that for many international businesses the best way to complete financial transactions is to keep an account at a foreign bank in the target customer country that can handle credit card transactions. The next step is to tie those operations to the legal systems in the original country where the business is located. This may be a suitable solution where an STE targets a niche market from a particular country. In addition to credit card payments, there exists a range of other proposed solutions, some of these include (UNCTAD 2001b):

- Person-to-person payments: such as PayPal, BillPoint, and eCount.com. These are third party transaction services. Payment is facilitated by the service that performs payment processing for online customers.
- Virtual escrow: such as i-Escrow Inc., and escrow.com. These are neutral third parties who carry out the instructions of both the buyer and seller to handle all the conditions of settlement.
- Digital wallets: such as Yahoo Inc., and Microsoft (Passport). This is usually like a physical wallet that is located on the users PC (or sometimes on the secure server of the financial institution) and stores the customer's online shopping information.

However, not all these solutions are available to small businesses in developing countries. On the basis of the solutions available for small business in developing countries, the most adequate payment methods are likely to include (UNCTAD 2004; Karake-Shalhoub & Al Qasimi 2006):

- PayPal (particularly if customers are from the USA).
- Credit cards.

PayPal is becoming more popular in developing countries and is setting up operations in developing countries. PayPal reportedly has over 16 million clients and three million business accounts and operate in countries such as India, the Dominican Republic, and Jamaica. PayPal charges no monthly fees but levies a service charge of about two percent per transaction (Tetelman 2003).

3.6.2 Evaluating e-commerce success

Adopting any level of e-commerce is not a static course with a beginning and an end. In fact, businesses tend to move forward in terms of sophistication as they become more confident with the technology and as benefits materialise. Duncombe's (2005) steps model illustrated how a small business may move up the e-commerce ladder and build on its level of sophistication. However, for a business to move forward effectively and make informed decisions, a business needs to assess its performance at each stage. In the context of developing countries Payne (2002) states that small businesses cannot afford to waste resources

on an e-commerce endeavour that does not yield benefits. This makes monitoring e-commerce crucial. She continues to say that results should be monitored regularly using 'as simple measures as possible'. If benefits are not being realised, the business needs to modify its strategy and take steps to remedy the situation. The selection of suitable measures of success depends upon what the business is trying to achieve through e-commerce adoption. To assist businesses to measure the success of their e-commerce ventures a number of authors have suggested different evaluation approaches. For instance, Bickerton et al. (1999) identified a number of success factors that can be associated with the different levels of websites and can also be applied to e-commerce generally. Larsen and Bloniarz (2000) identified a means of assessing and measuring performance that can be used to determine the major benefits of the Internet. While Payne (2002) suggests a number of simple measures that a small business in a developing country may adopt. These are discussed in the next section.

Approaches to evaluating a Internet presence

Bickerton et al. (1999) identified a number of success factors that can be associated with the different levels of websites. Although the focus of this thesis is wider that just websites, some of the success factors can be applied to e-commerce generally. The success factors applicable to e-commerce are:

- Increase in the total number of customers.
- Number of leads to the website.
- Number of leads resulting in an order.
- The cost of the project versus the resulting extra revenue.
- The number of orders generated.
- Revenue generated online as a ratio of total revenue.

Larsen and Bloniarz (2000) identified the step of assessing and measuring performance that can be used to determine the major benefits of the Internet. They divided the potential tangible benefits of the Internet into three performance categories: better, cheaper, and faster. In addition to these direct benefits, indirect benefits or intangible benefits may include increased public visibility for the organisation and improved staff morale.

Larsen and Bloniarz (2000) suggest that it is important at this stage to concentrate upon explicit outcomes and results that the business can easily determine whether or not have been met. Some measures, such as customer satisfaction may be difficult to assess, but can be measured in some way (for instance, with an Internet-based survey). Businesses may find it difficult to develop targets initially, but are supported by the measures by being given the chance to set different levels of targets: modest, moderate, and elaborate. Table 15 presents an example of measurable targets applied to STEs:

Table 15: Performance worksheet

Variable	Performance category	Measure	Modest target	Moderate target	Elaborate target
Promotional	Cheaper	The reduction in	Reduce by 5%	Reduce by	Reduce by

costs		physical advertising		10%	30%
Communication costs	Cheaper	The reduction in communication costs	Reduce by 5%	Reduce by 10%	Reduce by 30%
Number of customers	Higher	Number of new customers each month	National: 2% increase International: 10% increase	National: 5% increase International: 15% increase	National: 10% increase International: 30% increase

Source: Adapted from Larsen and Bloniarz 2000, Table 2, p.113

Finally in the context of small businesses in developing countries Payne (2002) suggests the following simple measures that can be used to measure expected results:

- Increased revenue per employee.
- Increased customer satisfaction.
- Reduced inventory.
- Increased sales per salesperson.
- Increased market share.
- Increased profitability.

These five simple predictors are quite similar to those identified by Bickerton et al. (1999) and Larsen and Bloniarz (2000). However, they are presented in a much simpler form for small businesses in developing countries to apply when measuring the success of e-commerce.

3.6.3 Promotion

There are millions of businesses on the Internet all vying to attract customers (Chaston 2004). Being found on the Internet amongst the millions of websites that exist poses one of the largest challenges for small businesses in developing countries. The WTO (2002) calls web advertising the 'competitive advantage'. It is also one of the most forgotten tasks in e-commerce (WTO 2001). This section will discuss methods for promoting a web presence. The discussion will focus mainly on strategies that are relevant to tourism enterprises.

Approaches to promoting a web presence

Birch et al. (2000) suggest four levels of Internet promotion that have proven to be successful. The four levels are promotion on the organisation's own website, promotion on other commercial websites, promotion in Internet communities, and promotion outside of the Internet.

Promotion on the organisation's own website

This can be done by supplying information about new offerings, emphasising successes, and communicating interesting events (Birch, Gerbert & Schneider 2000).

Promotion on other commercial websites

A number of channels are available to small businesses:

Search engines

From a small business point of view, search engines offer two major benefits, they are free to register for and they are the closest things on the Internet to a telephone directory (Kaufman 2000). Search engines rank websites higher if they are cross-linked with other websites (Chaston 2004). Businesses can also pay for a high listing in popular search engines.

Banner advertisements and cross promotion

Banner advertisements are as effective as television advertisements in their ability to increase brand awareness. From the point of view of a STE, there is little real benefit in buying advertising space on another small businesses website (Chaston 2004). One particular strategy is to pay for banner advertising to appear on the major search engines when 'terms' that relate to the organisation's website are entered by users of the search engine (Booth 1999).

Often a business can cross-promote a website that complements or supplements the information on the organisation's website, be it with a travel agent, a customer, or even a competitor. This is done by offering to provide online advertising space, or hypertext links for the other business on the website in exchange for advertising (Phillips 1998).

Government tourism websites

Government tourism websites add value through the destination brand. These types of portal websites act as an umbrella for individual tourism operators. Consumers generally regard these websites as a source of unbiased and high quality information. They are typically in a position to provide in-depth destination information and offer a whole range of products that a consumer may seek on a destination (WTO 2002a). An example of a government tourism website is www.tourism.gov.my. It is the official tourism website for Malaysia. The website's primary role is to provide useful, accurate, and comprehensive information for both local and international tourists (WTO 2002a). The website provides information on accommodation, attractions, and transportation. In addition to this, it provides information on food, arts, culture, and information for business travellers. Furthermore, this website provides STEs the opportunity to promote themselves to international audiences for free on a scale that could not be performed with an individual website. However, a general shortcoming of using these types of websites from the perspective of STEs is that the only way they can differentiate themselves is when a user is directed to their website (if the STE has one) (Gupta, Jones & Coleman 2004).

Tourism portals

Like government tourism websites, commercial tourism portals provide everything needed to plan tourism products. This includes airfares, accommodation, weather, and maps. This is so that visitors can easily set up there own personalised tours from one website. Most of these websites also have links to other informational websites for travellers. Some examples of these sites are www.travelocity.com, www.expedia.com, and www.wildasia.com. There are also more specific portals that concentrate on a region or even a particular area such as accommodation or theme such as www.ecoclub.com (an eco-tourism portal). These sites are especially good at solving the problems of over-supply or under-demand in the package tour industry using a special late-booking section to promote 'left-over' holidays at the last minute (Liu 2000).

Promotion in Internet communities

The concept of 'building communities' is an important one. A STE may also promote itself by establishing a presence in Internet communities (Birch, Gerbert & Schneider 2000). STEs offering niche products such as bird watching or scuba diving can establish a central point for customers to interact with one another through a website/discussion forum. Although based on the discussion in this thesis so far, these types of activities are probably out of reach for most STEs.

Promotion outside the Internet

Beyond the development of an online presence a combination of offline and online promotion is needed. It is especially important that a STE consider how it will make its online presence known to customers not only through online means, but also through traditional promotional material. Even a simple email strategy requires a combination of online and offline promotion. This includes pamphlets, posters and the whole range of traditional techniques. In support of the usefulness of traditional promotional techniques and online promotion, the authors of a report produced by UNCTAD (2004) titled '*Use of the Internet for efficient international trade: guide for SME managers*' recommended that STEs take advantage of traditional marketing techniques. The authors provide the example of a Bhutanese tour operator that in 2003 received 15 percent of orders through its website, allowing the business to bypass its foreign agents. This was largely thanks to the fact that the *Lonely Planet* guidebook (a popular travel guidebook) about Bhutan recommends a selection of Bhutanese tour operators (and lists their website URLs).

Promotion and electronic distribution

STEs that adopt the Internet will be confronted with the question of which channel to use for distributing not only information about themselves but also their services (it has been observed that the Internet has changed the way in which tourism services are distributed and that online intermediaries play a large role). Electronic channels play an increasingly important role in tourism promotion as well as the distribution of services, with most companies utilising a range of avenues to reach customers (O'Connor & Frew 2004). O'Connor and Frew (2004) developed a matrix in the context of hotels that can be used to analyse the different options available. The matrix encompasses many of the aspects of implementation discussed so far. The main difference is that it is applicable to making decisions about promotion and electronic

distribution. Like the discussion so far, the matrix suggests that businesses need to consider technical, financial, promotional value and various other factors before implementing the use of a specific channel. It was developed in the context of developed countries. Nevertheless, the matrix provides a useful set of criteria for consideration in the channel evaluation process.

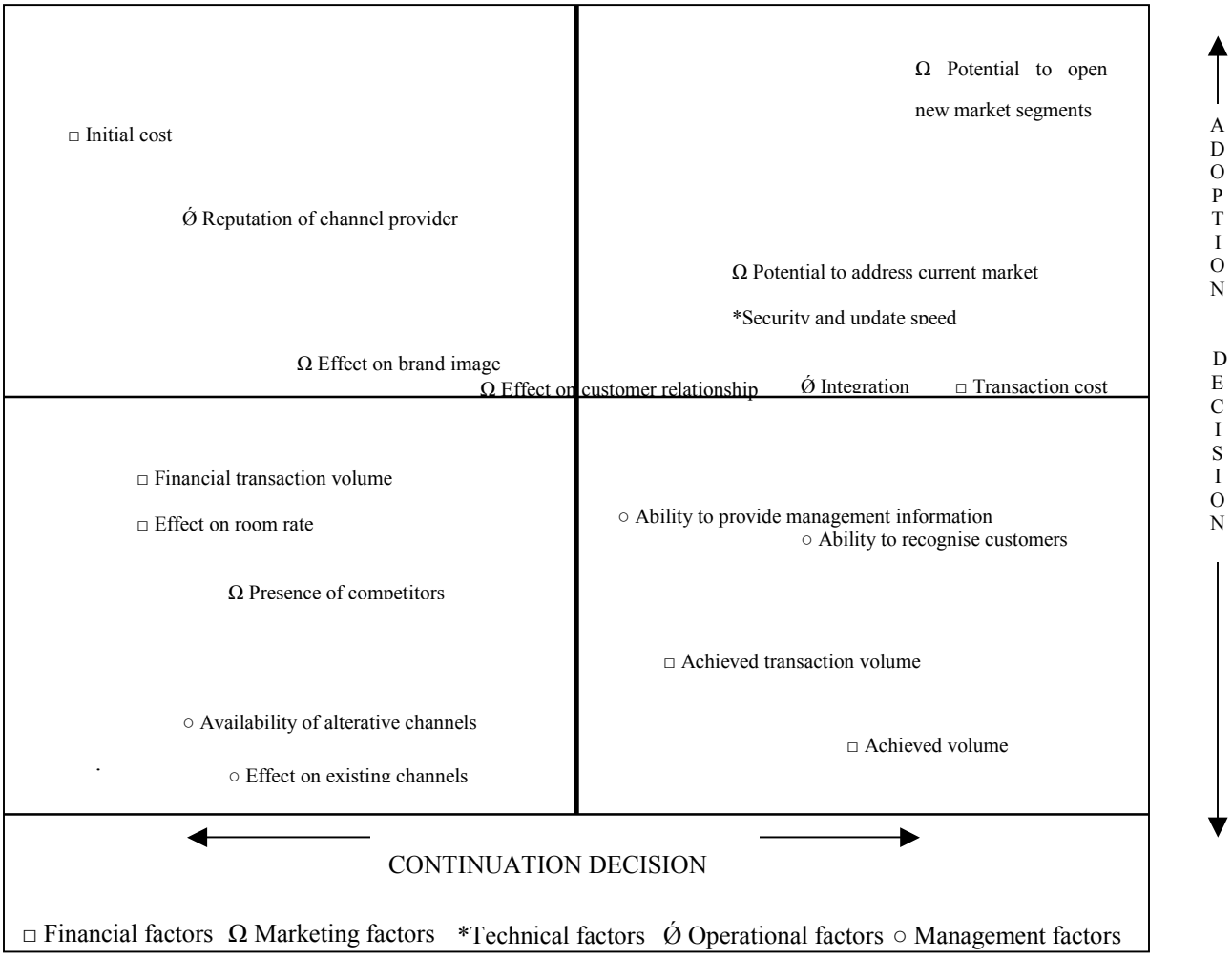

Figure 11: Distribution decision matrix
Source: Adapted from O'Connor and Frew 2004, Figure 1, p.195

The matrix plots the factors based on their importance according to the decision to adopt or the continuation decision. The main adoption factors are operational and technical issues, such as ease of use, transaction speed, update speed, traffic levels, integration and security. The initial cost also needs to be considered, as does the channel's ability to service both existing and additional market segments. In contrast, the continuation decision appears to be more complex. Factors such as the transaction volume and the data that the channel provides back to the business to assist decision making and the ability to recognise customers were the most important factors.

3.6.4 Summary of implementation issues

This section discussed the implementation issues that STEs in developing countries are likely to encounter when actually putting into practice e-commerce. The issues were categorised into three main areas based on Burgess (2002) model. First some technical considerations were discussed. The technical concerns surrounding Internet access is unavoidable for small businesses. However, as observed, it is not necessary

for the Internet to be accessed from within the business. Some businesses will face the choice of Open Source Software against off the shelf packages. The comparative advantages of each were discussed. Businesses planning to build a website need to consider how the website will be hosted and businesses that would like a dedicated reliable connection to the Internet will also need consider the use of ISPs.

Next this section examined methods of measuring the success of an e-commerce initiative. Small businesses should be able to understand some of the different measures available to them to measure the performance of their e-commerce venture. The selection of suitable measures of success depends upon what the business is trying to achieve through e-commerce. The common themes from the evaluation methods discussed are that they assess reduced costs, increased revenue, and increased market share. The last area discussed the various ways a web presence can be promoted. This is a step that is neglected by many STEs. Four main areas were discussed, promotion on the businesses own website, banner advertisements and cross promotion, promotion in Internet communities, and offline promotion. A matrix was described that can be used by STEs to help them to make decisions when selecting promotion and electronic distribution channels. The next section will discuss the first version of the framework.

3.7 The initial conceptual framework

This chapter discussed various aspects of e-commerce adoption. It began by discussing the factors that collectively contribute to the e-readiness of a small business. Though these factors may vary across different studies, and have varying degrees of influence on a business, they typically include an investigation of the macro environment, market environment, and the organisation (and the technological context where a specific type of technology was not under consideration). The role these models play is that they assist managers to make decisions based on their underlying business environments. Along these lines, Austin (1990 p.29) posits 'a *manager must analyze systematically these environmental forces, decipher their managerial implications, and translate them into strategic decisions.'* The second section looked at the how the Internet can be exploited. The ICDT model was used to categorise the uses of the Internet. Various guides for small businesses were also discussed. The final section examined the implementation issues that are pertinent to small businesses. Three broad areas were examined. They were technical issues, evaluation, and promotion. These sections formed the basis for the initial conceptual framework.

The reader is reminded that the purpose of this thesis is to develop an e-readiness framework for STEs in developing countries. The framework has three purposes. The first is to identify the most relevant determinants of e-readiness (that is, what factors collectively contribute to the e-readiness of a business, both negatively and positively). That is, to act as an information gathering or planning tool that can be used by STEs to assess their e-readiness (in other words a planning tool). The second purpose is to identify strategies for STEs based on their level of e-readiness. The final purpose is to identify implementation issues that are relevant to STEs in developing countries.

The need for the framework was described in Chapter Two. It bears reminding that entrepreneurs in developing countries are hindered by the underlying environmental limitations (such as infrastructure and the high costs of ICTs) that characterise developing nations. This suggests that a tool for STEs that allows them to systematically audit their business environments by reflecting internally and externally of the business to make informed decisions on e-commerce would be of use. A graphical representation of the initial conceptual framework is presented in Figure 12. This is the framework at the top-level. The first step is the e-readiness phase, and is designed to provide managers of STEs an instrument to allow them to systematically analyse their environment. Following the graphical representation of the framework the factors that collectively contribute to the levels of e-readiness within the three contextual areas are discussed and defined. The second step is the strategy formation phase. Here strategies are identified to assist managers to identify the areas they can exploit based on their level of e-readiness. Three simple spaces are identified, and how each of these spaces can be exploited depends on the overall level of e-readiness. The final step focuses on the implementation issues that a STE needs to consider before actually implementing e-commerce. They were categorised as technical issues, evaluation, and promotion.

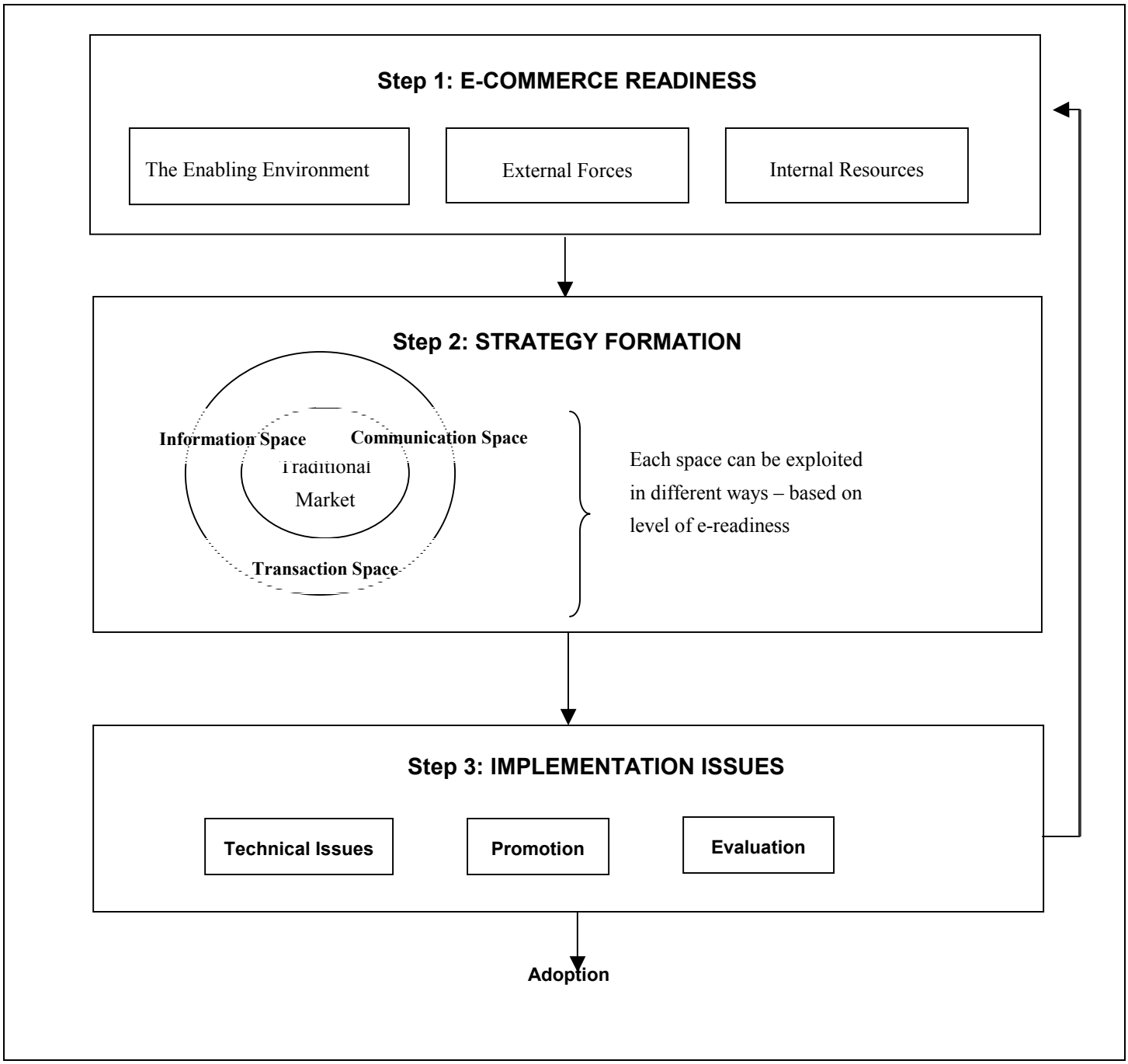

Figure 12: The initial framework

3.7.1 Step 1: E-readiness assessment

The fist step of the framework segments factors that contribute to the e-readiness of a business into three contextual areas. The first contextual area is the *Enabling Environment*; which refers to an assessment of e-commerce enablers such as supporting industries and government readiness:

- Supporting industry readiness: Refers to e-commerce enablers. It includes the telecommunications infrastructure, IT services, and financial institutions to allow online payments.
- Government readiness: Refers to government support of e-commerce in terms of policies, involvement, support, and enthusiasm.

The second contextual area is *Market Readiness;* which refers to an assessment of the market environment. In regards to the tourism industry an investigation of the market environment is likely to reveal the main e-commerce adoption drivers. Four factors are identified:

Customers: Refers to customer expectations of the business/industry to be online and the customer's ability to engage in e-commerce.

Competitors: Refers to an investigation of competitive pressure and competitor activities. For instance, have competitors adopted e-commerce? What level of e-commerce have they adopted?

Suppliers/partners: Refers to an investigation of supplier readiness and pressure applied to adopt e-commerce.

Alliances: Refers to an assessment of the opportunity to form alliances through e-commerce, like joint ventures and sharing resources.

The third contextual area is *Organisational Readiness*; which refers to an assessment of the business readiness to adopt e-commerce. It is here that a business is likely to encounter many obstacles to e-commerce. Five factors are identified here:

Managers' characteristics: Refers to management's attitude, knowledge, and commitment to e-commerce. These factors have all been grouped under manager characteristics because the decision-making is typically made by the owner/manager.

Overall strategy/types of products: Refers to the business strategy and how it matches with e-commerce. It also refers to the types of products it plans to sell and promote via e-commerce.

Capital: Refers to an assessment of financial resources available to invest in e-commerce.

IT infrastructure: Refers to the current level of IT sophistication within the business and its ability to adopt e-commerce.

Employees: Refers to an assessment of the employee skills within the business.

Socio-cultural factors: Refers to socio-cultural factors within the business. It includes the internal attitude towards e-commerce and customer service culture.

The overall investigation of these three contextual areas is labelled the *Business e-readiness*. By examining these contextual areas and subsequent factors a business can identify opportunities that can be exploited and barriers that may need to be overcome. Also, a business can gain an idea of the types of e-commerce activities it is able to perform.

Figure 13 provides a graphical representation of the proposed framework, followed by Table 16, which defines each factor

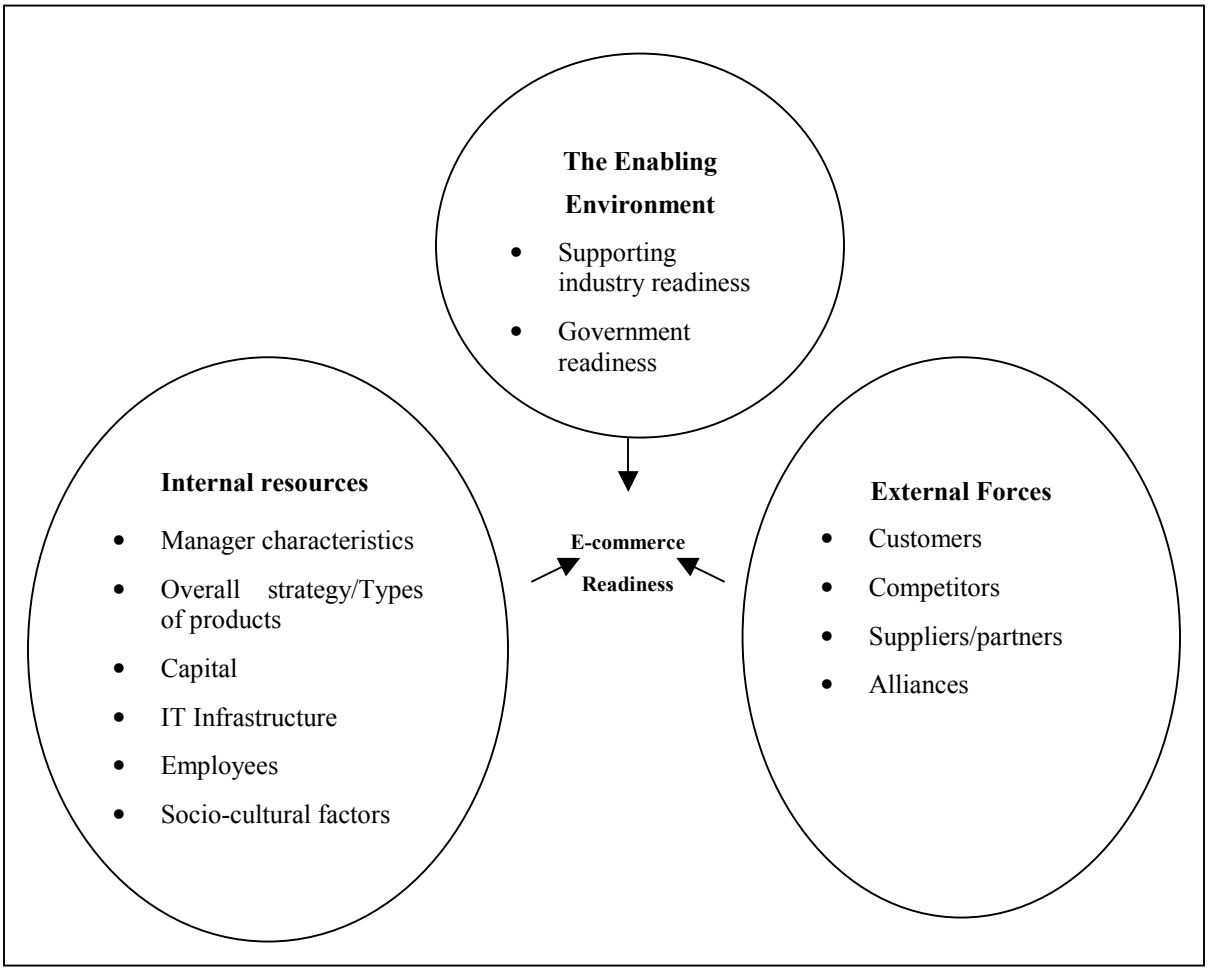

Figure 13: The initial framework – e-commerce readiness investigation

Table 16: Description of each e-readiness factor

Contextual area	Factor	Literature	Definition of construct
Enabling environment	Supporting industry readiness	(Molla & Licker 2005; Xu, Zhu & Kraemer 2002)	Refers to e-commerce enablers. It includes the telecommunications infrastructure, IT services and financial institutions (to allow online payments).
	Government readiness	(Molla & Licker 2005; Chau & Turner 2005)	Refers to government support of e-commerce in terms of the regulatory environment, policies, involvement, support and enthusiasm.
Market environment	Customers	(Xu, Zhu & Kraemer 2002; Burgess 2002; Molla & Licker 2005)	Refers to customer expectations of the business/industry to be online and the customer's ability to engage in e-commerce.

	Competitors	(Xu, Zhu & Kraemer 2002; Burgess 2002; Molla & Licker 2005)	Refers to an investigation of competitive pressure and competitor activities. For instance, have competitors adopted e-commerce? What level of e-commerce have they adopted?
	Suppliers / partners	(Xu, Zhu & Kraemer 2002; Burgess 2002; Molla & Licker 2005; Chau & Turner 2005; Iacovou, Benbasat & Dexter 1995)	Refers to an investigation of supplier readiness and pressure applied to adopt e-commerce.
	Alliances	(Burgess 2002)	Refers to an assessment of the opportunity to form alliances through e-commerce. For instance joint ventures / share resources.
Organisational readiness	Management characteristics:	(Chau & Turner 2005; Cloete, Courtney & Fintz 2002; Grandon & Pearson 2003; Molla & Licker 2005; Tiessen, Wright & Turner 2001; Seyal, Rahim & Rahman 2000)	Refers to management's attitude, knowledge, governance and commitment to e-commerce. These factors have all been grouped under management characteristics because the decision-making is typically made by the owner/manager.
	Overall strategy	(Xu, Zhu & Kraemer 2002; Burgess 2002; Molla & Licker 2005)	Refers to the business strategy and how it matches with e-commerce and the types of products it plans to sell via e-commerce.
	Capital	(Xu, Zhu & Kraemer 2002; Burgess 2002; Molla & Licker 2005; Chau & Turner 2005)	Refers to an assessment of financial resources available to invest in e-commerce.
	IT Infrastructure	(Chau & Turner 2005; Molla & Licker 2005; Xu, Zhu & Kraemer 2002)	Refers to the current level of IT sophistication within the business and its ability to incorporate e-commerce.
	Employees	(Xu, Zhu & Kraemer 2002; Burgess 2002; Molla & Licker 2005)	Refers to an assessment of the employee skills within the business.
	Socio-cultural factors	(Salman 2004; Hawk 2004)	Refers to socio-cultural factors within the business. Includes the internal attitude towards e-commerce and business culture.

3.7.2 Step 2: Strategy formation

Once a business has performed its e-readiness assessment, the next step is to decide how the enterprise will exploit the Information, Communication, and Transactions Spaces created by the Internet. As the Distribution Space refers to the distribution of physical products sold online (or electronic products such as software and reports) and as there are no such products to distribute in tourism (Liu 2000), the Distribution Space will not be discussed further in this thesis.

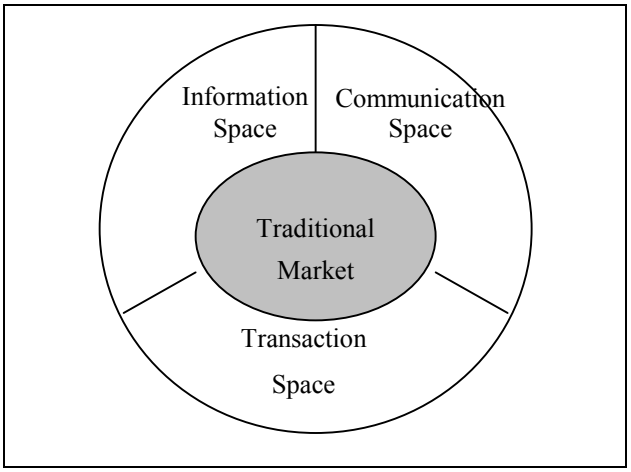

Figure 14: Spaces created by the Internet
Source: Adapted from Angehrn 1997, Figure 1, p.362

The Information Space: This space refers to the different ways a business can provide information online. Exploiting this space means providing the information that customers need, such as product and company contact information.

The Communication Space: This space refers to the exchange of information between various business stakeholders: suppliers, customers, and strategic allies. Unlike the Information Space, information in the Communication Space flows in more than one direction.

The Transaction Space: The main use of this space is to carry out payments online. It bears reminding that small businesses in developing countries face many obstacles to offering online payments.

Each of the spaces can take very forms of sophistication and may be exploited in various ways and this is directly linked to the level of e-readiness.

3.7.3 Step 3: Implementation issues

Here a business considers the actual implementation issues that need to be addressed before actually putting e-commerce into operation. Three areas were identified. They were the technical issues, evaluation, and promotion.

Technical issues refer to the technical aspects of adopting the Internet. The main areas that were identified were:

- Accessing the telecommunications.
- The use of ISPs.
- The use of hosting services.

- Issues relating to the section of software.
- The technical aspect of online payments.

Evaluation refers to the monitoring and assessment of the e-commerce venture. Three types of evaluations were discussed in this chapter. The evaluation however depends on what the enterprise is trying to achieve through e-commerce. Here a synthesis of the discussion related to evaluation is adapted to suit the needs of STEs:

- Increased revenue.
- Increased customer satisfaction.
- Increased market share.
- Decrease in communication costs.
- Increased interaction with tourism intermediaries
- Increased interaction with customers.

The final item to be considered in Step 3 is Promotion. This refers to how the business will make its new web presence known to customers and other businesses. A number of suggestions were discussed in this chapter:

- Promotion through search engines.
- Promotion on official tourism websites
- Promotion on commercial tourism portals
- Promotion outside of the Internet

3.8 Summary of the theoretical foundations

This chapter discussed e-commerce adoption from a number of different perspectives. It began by introducing the concept of e-readiness and discussed various e-readiness evaluation tools. It was observed that there is a need for an e-readiness framework that focuses on small enterprises. A number of different models and frameworks were discussed that focus on assessing the business environment. These works focused on various aspects of this study such as tourism, small enterprises and enterprises in developing nations. Based on a synthesis of these studies it was concluded that e-commerce adoption depends on a number of internal and external factors. The next section of this chapter introduced Angerhn's (1997) ICDT model and discussed the various ways that the Internet can be exploited by a small business. The purpose of this discussion was to identify ways that a small enterprise may use the Internet based on their level of e-readiness. The following section discussed studies and publications that suggest strategies for small enterprises based on an analysis of their environments. Subsequent to this discussion, this chapter discussed certain technical, promotional, and evaluation issues that a STEs needs to consider before actually

implementing e-commerce. Finally, based on a synthesis of these three sections an initial conceptual framework for STEs was presented.

Chapter Four

Methodology & Cross National / Cultural Research

4 Methodology

This chapter describes the research method, design, and setting of the study. The first section of this chapter will examine the research perspective, research methods adopted, and the techniques that have been used for data collection. It will also look at some of the research methods, and the data collection techniques that were not used. Two main phases of data collection were carried out in this study. In the first phase it was academics in an online expert panel. The second phase involved field interviews with STEs. The two phases were used to assess and refine the framework. These two phases will be discussed in detail. This chapter will also discuss issues concerning validity and generalisability. The second section of this chapter is dedicated to discourse on research conducted in a developing country context, and the issues and challenges associated with cross-national research.

4.1 The problem and its context

Before entering into a discussion of the research method, design, and setting it is worth revisiting the purpose of this study. In the context of developed countries a number of benefits have been linked with e-commerce adoption amongst large, medium, and small tourism enterprises. This suggests that small tourism operators in the developing nations may also derive some benefits from the use of e-commerce. However, entrepreneurs in developing countries are hindered by the underlying environmental limitations (such as poor infrastructure, high cost of ICTs, and unstable political environment) that characterise developing nations. This suggests that a tool for STEs that allows them to systematically audit their business environments by reflecting internally and externally of the business to make informed decisions on the use of e-commerce would be of use. The framework developed in this thesis identifies the most relevant determinants of e-readiness, and acts as an information gathering or planning mechanism that can be used by STEs to assess their e-readiness. It then suggests how the Information, Communication, and Transaction Spaces can be exploited based on their overall readiness. The final step of the framework suggests a number of implementation issues that a STE needs to consider before actually adopting e-commerce.

4.1.1 Overview of the research approach

This study attempts to make generalisations (in the form of a framework) from specific inputs (the literature and the participants in both phases of the study). As such, it relies on the meanings that social actors (experts in Phase One and STEs in Phase Two) make of their social environments and concentrates upon interpreting these meanings. An interpretive perspective is used to guide the research. The researcher is not claiming absolute certainty of the results, but is prepared to let the reader make judgments as to the applicability of the results based upon the research method used.

4.2 The research approach and perspective

4.2.1 The use of the qualitative approach

> *Quantitative researchers tend to work with the idea that there is only one social reality, while qualitative researchers accept the possibility of, and search for, multiple realities or world views' …'the former work with their 'outside', expert construction of reality, while the latter accept that in any social context it is possible that people may inhabit different socially constructed realities, or variations on one, and may therefore have different ways of interpreting their actions and the actions of others.* (Blaikie 2000 p.251)

As observed, a qualitative research approach is employed in this study. The qualitative approach was developed within the school of the social sciences and differs from traditional research approaches as it was designed to enable researchers to understand people and social and cultural phenomenon (Harvey & Myers 2002). An accurate description of qualitative research is that it is concerned with analysing human action in terms of meanings (Ezzy 2002). Qualitative research is underpinned by the importance that is given to producing detailed or 'thick' descriptions of the social settings being investigated. This is different from the type of explanations sought after by quantitative researchers. Along these lines, (Blaikie 2000 p.251) asserts that qualitative researchers:

> *give a great deal of attention to describing what might appear to be minute and trivial details of social activity. It is argued that this is necessary to provide a backdrop within which actions and interactions can be understood*.

By adopting a qualitative approach this study was able to gain an in-depth understanding of STEs and the social context in which they exist. A vital component of this study is the selection of and exchanges with the participants in each phase of the study. Thus, from a theoretical viewpoint, the researcher was immersed in the world of the social actors (experts in Phase One and STEs and their environments in Phase Two) with a view of developing the framework.

4.2.2 The interpretive approach

An interpretive approach is the underlying perspective used to guide this research. The interpretive approach is often (although not exclusively) associated with qualitative research techniques. Whereas the positivist approach is usually (again, not exclusively) aligned with quantitative techniques (Williamson, Burstein & McKemmish 2002). Interpretive researchers start out with the assumption that access to reality (given or socially constructed) is only through social constructions such as language, consciousness, and shared meanings. Along these lines, interpretive studies generally attempt to understand phenomena through the meanings that people assign to them. In Information Systems (IS) studies interpretive methods

of research are '*aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context'* (Walsham 1993 p.4-5).

Interpretivist researchers conduct their research in a natural setting, this is called the naturalistic enquiry (Williamson, Burstein & McKemmish 2002). This is because they believe that the natural world is different from the social world, which can be interpreted by people (Williamson, Burstein & McKemmish 2002). Unlike the other underlying epistemologies, interpretivist research designs are aligned with inductive reasoning. This type of reasoning begins with particular instances and concludes with general statements. Interpretivists plan their studies, but are less concerned with a structured approach than their positivist counterparts (Williamson, Burstein & McKemmish 2002). Because of the desire to generate 'thick' description and gain deep understanding samples are usually quite small. Random sampling is also not as emphasised as in the positivist paradigm and there is not the same emphasis on replicating the results. As with this study, as a starting point interpretivists perform a literature review to develop a thorough understanding on the topic under investigation, then based on the literature review they generate research questions and plan the conduct of the study (Williamson, Burstein & McKemmish 2002).

It is obvious from this description that this study shares many characteristics with an interpretivist study, including the need for the researcher to interpret the world of the social actors in both phases of the study, the small number of participants, and the literature search conducted to inform the research.

4.2.3 Positivism and post-positivism approaches

There are two other major research perspectives worth discussing here. They are positivism and post-positivism. Positivists consider that '*the world is a collection of observable events and facts that can be measured*' (Williamson, Burstein & McKemmish 2002 p.27). For this reason, there is often an emphasis on quantitative data such as survey design, although qualitative techniques can be employed as well. Although it is generally accepted that positivists produce results that can be measured and replicated, Silverman (1997) posits that quantitative researchers would argue against this claim. Silverman (1997) suggest that they do not aim to produce a science of laws (like physics) but simply produce a set of cumulative, '*theoretically defined generalisations'* deriving from rigorous data analysis. Positivist research is associated most commonly with deductive styles of reasoning (which is linked to the hypothesis testing approach). Using the deductive or hypothesis testing approach a researcher embarks with theories and models and defines variables or constructs for study. The researcher then forecasts their relationships through framing of hypotheses, and tests those hypotheses (Williamson, Burstein & McKemmish 2002).

Although the positivist epistemology has traditionally been the foremost epistemology, over time there has been mounting criticism aimed at those who claim it is the only research viewpoint – the main argument is that its strict rules set it apart from reality (Crotty 1998).

Like positivists, post-positivists assume that reality exists, the former however believe it is not easy to discover. Post-positivists believe that reality must be subjected to the widest possible critical examination. Research methods adopted by post-positivists include approaches in more 'natural settings' (similar to

interpretive researchers), and a focus on the insider (emic) perspective (Williamson, Burstein & McKemmish 2002). Therefore it can be argued that the post-positivist approach shares some similarities with the interpretivist approach. The main dissimilarities are that post-positivists believe that there is a reality that can be measured.

As observed, the idea of claiming certainty of findings, and claiming objectivity, validity, and generalisability for those findings is the viewpoint of a positivist. The non-positivist view is to offer the findings for interpretation. In other words, the invitation is made to the reader to consider the researcher's interpretation and arguments and come to a conclusion based on the evidence presented (Crotty 1998). From this argument, the investigation described in this thesis shares a common basis with the post-positivist and interpretivist viewpoint.

4.3 Research methods

There are many methods that can be used to inform research. These methods include grounded theory, action research, ethnography, life history, conversational analysis, and case study research amongst others (Myers & Avison 2002; Neuman 1997). The research methods employed in this study borrow from various research traditions. It was planned that Phase One would adopt the Delphi method and Phase Two a multiple-case study approach. However, in Phase Two there are unintentional similarities with ethnography and action research. In discussing SME research Hill and Wright (2001 p.436) argue:

> *That when all of the SME factors and various competing orientations are taken into consideration, no one research approach is appropriate. What is needed, therefore, is an integrated approach to SME research.*

The following section will discuss the Delphi and multiple-case study method. It will also discuss other research methods that Phase Two overlaps with.

4.3.1 Phase One: Delphi study

There is some difficulty in classifying Delphi as a research method or as a data collection technique (Williamson 2002a). Here it is described as a research method. As early as the 1950s the term Delphi process was used to refer to the reliable consensus of opinion, obtained from a group of experts by a series of intensive questionnaires combined with controlled opinion feedback (Linstone and Turoff, 1975). Now, despite becoming a popular research method, consensus on the precise definition of the Delphi technique is absent (Delbecq, VandeVen & Gustafson 1975; Sheridan 1975). Simply defined, the use of the Delphi technique may be described as a method for structured expert group communication, in a way that effectively allows a group of individuals, as a whole, to deal with a complex problem or issue (Sheridan 1975). It is designed to elicit, and develop individual responses to the problems posed, and to enable the experts to refine their views as the group's work progresses in accordance with the assigned task (Adler & Ziglio 1996). Participants in a Delphi are individuals who have a deep interest in the issues and important

knowledge or experience, which can be valuable for the study (Delbecq, VandeVen & Gustafson 1975). Some typical characteristics of a Delphi study are:

- The technique or process involves a group of persons.
- The aim of the process is information.
- The information being sought is uncertain to the members of the group.
- A planned systematic approach is followed through the process to elicit information from the group.
- The process involves individual contributions and knowledge.
- There is some evaluation of the groups' judgment or view.
- The process involves an opportunity for individuals to revise views.
- There is some degree of anonymity for the individual responses.

(Sheridan 1975; Dakley 1975)

Using this description, Phase One of this study could be described as sharing many similarities with the Delphi technique, because it involved a group discussion with experts who offered their knowledge on the topic at hand. The major difference is that Phase One did not necessarily attempt to perform multiple rounds of data collection.

4.3.2 Phase Two: Multiple case study

Phase Two is described as multiple case study research. Yin (1994) suggests that the use of multiple case studies is the recommended method for studying poorly understood phenomena in a real-world setting. Case studies are concerned with examining the characteristics of a particular phenomenon. The researcher explores a particular case with the confines of time and activity (such as a process or a social group), and gathers in-depth information by using a range of data collection methods. As such, it is used more to shed light upon or explore a phenomenon (Leedy, 1997).

Case studies emerged as the most common qualitative method used in information systems (Orlikowski & Baroudi 1991; Alavi & Carlson 1992), and are particularly suited to this domain (Myers 1997). Studies have also been used in many small business studies (Iacovou, Benbasat & Dexter 1995; Jeffcoate, Chappell & Feindt 2002), as well as in the context of developing countries (Montealegre 1998).

In this study, each STE that participated in Phase Two could be described as an individual case. Each region within a country could also be described as an individual case study (bounded case study). Typically, the case study method involves a small, finite number of participants (usually less than five). However, in the case of this study, if a smaller number of participants were selected it would not have provided the breadth of coverage needed (such as varied levels of e-commerce use, and a selection of rural, semi-rural, and urban STEs), as the intention was to develop a framework that is generally applicable to STEs.

Ethnographic study?

> *Ethnography, as a research method, is well suited to providing information systems researchers with rich insights into human, social and organizational aspects of information systems development and application.* (Harvey & Myers 2002 p.169)

Ethnographic research comes from the discipline of social and cultural anthropology, which is the field where a researcher (ethnographer) spends a large amount of the time in the field (Myers 1997). It is concerned with people and demonstrations of culture (that is, what people think and believe) and behaviour (such as speech and actions) in certain social contexts. What is at the core of ethnography is that displays of behaviour do not give meaning, rather the researcher must make sense of the behaviour and interpret the meaning (Neuman 1997). This is because ethnography assumes that people make inferences, that is, converge deeper beyond what is explicitly seen or heard to the level of what is meant or implied (Harvey & Myers 2002). Therefore, taking what is heard or seen and interpreting it, is what is at the heart of ethnography (Neuman 1997).

Ethnography has become an increasingly popular research method in the domain of information systems. A reason for using ethnography to study actual real world situations (such as a small business) is because it enables a researcher to observe and study organisations as the complex social, cultural and political systems that they are (Harvey & Myers 2002).

Using this definition, one view is that elements of this study could be related to ethnography - Phase Two involved visiting two countries and interacting with social actors (small business owners) in their social contexts. In some cases, the researcher spent days with participants in their lodge and surrounding areas, talking to guests and employees, and was able to gain in-depth insight into the STEs social contexts (the social and cultural environments). However, it was not planned that this study would be an ethnographic study and there are some issues with categorising it as one. In some cases the interviews were conducted over the telephone, which meant that observations were not consistent across the board. Phase Two also involved examining the online presence and activities of STEs. Hine (2000) labels this as 'virtual ethnography'.

Action-research approach?

Action research is another research method that this study shares similarities with. Action research is concerned with the study of human actions and social practice and combines research into important existing matters (Somekh 2006). It is described as a means whereby research extends past its traditional boundaries and can act as a organised intervention - going beyond describing, analysing, and theorising social practices to working with subjects to build and change human actions and social practices (Somekh 2006). Focus groups and face-to-face interviews are the most commonly employed data collection techniques. Action research is usually performed in distinct cycles (action, results, reflection), where each cycle is used to challenge, support, and refine insights and results from previous cycles (Oosthuizen 2002). A problem with associating this study with action research is that it is usually concerned with a single situation, such as a group or organisation, and is not generally viewed as being a suitable or accurate

approach to examine the widespread applicability of theories (Oosthuizen 2002). Action research is especially useful for the actual *development* of theoretical models in the field of information systems, but not particularly useful for *testing* theoretical models (Kock & Lau 2001) such as in this thesis (this study is concerned with the development and refinement of a framework). Also, action research is typically viewed as research where a researcher influences results or participants by his or her participation. It was not the intention of the researcher to affect any of the STEs interviewed. However, as an indirect consequence of the interview, and subsequent discussion that took place, the researcher may have affected the participant. In other words, there may have been some elements of 'accidental action research'.

4.3.3 Summary of the research approach

An interpretive approach is the underlying perspective used to guide this research. It was intended that the Delphi approach would be adopted in Phase One with an online panel of experts. The purpose of the expert panel was to invite discussion on the initial framework, and gain some kind of consensus on its content. In Phase Two it was planned that a multiple case-study approach would be employed (however, as observed this phase shares some similarities with other research methods) and involved an investigation of STEs in rural, semi-rural, and metropolitan areas of Malaysia and Ecuador.

4.4 Data collection techniques

Within the qualitative framework there are many data collection techniques. Two data collection techniques were employed in this study. The reason for this two-fold data collection approach was to use an expert panel to assess and refine the initial framework, and then refine it further using data collected during an field research and interactions with STEs. The combination of the expert panel and field interviews minimises the weaknesses and maximises the strengths of these two different data collection techniques.

These two approaches were selected over other techniques such as questionnaires, as it was felt that questionnaires would not be suitable. Questionnaires allow for coverage of a wider sample and larger geographical areas, but this was not required for this study. Although questionnaires can be used to collect qualitative data through open-ended questions (Williamson 2002c) it would not have provided the in-depth analysis required and does not allow the researcher to probe for further information. One advantage of qualitative data collection techniques such as interviews, is that they allow the researcher the chance to use individual quotes refer to specific situations to highlight not only themes, but also exceptions to themes. The use of secondary information as a data collection technique was also employed. The review of secondary data was useful in gaining an understanding of the situation in Ecuador and Malaysia (the bounded case studies) and the development of the initial framework. Secondary sources such as government statistics, census data, and other relevant information provided useful cross-checks with primary data collected (Whyte 1999). This section discusses in detail the two data collection techniques

employed. As the interviews in Phase Two were the main data collection phase they are discussed in more detail.

4.4.1 Phase One: The expert panel

In Phase One of this study an expert panel discussion took place to gather feedback from a group of experts on the initial framework. The expert panel was run in a similar manner to a focus group. The main difference was that it was performed online (as experts were located in various locations it was geographically impossible to conduct a face-to-face focus group). Nevertheless, as the vast amount of social spaces on the Internet are very similar to real world situations (Kitchin 1998), many of the same problems that apply to focus groups in a real life setting can be applied to the online setting.

Focus groups

A focus group involves an organised discussion with a selected group of individuals to gain information about their views and explore their experiences on a topic area. Focus groups are a subset of group interviews, and involve interviewing a number of people at the same time. The emphasis in a group interview is on the questions and responses between the researcher and the participants. A focus group differs as it relies on the insight and data produced by the interaction between participants (Gibbs 2000). The main reason for using a focus group as a research tool is to examine participants' attitudes, feelings, experiences and reactions in a way that would not be possible with one to one interviewing, observation, or surveys. They are more likely to be revealed via the social gathering and interaction that occurs when participating in a focus group. The interaction and the language used is important because it highlights the participants' views of the topic. The interaction allows participants to ask questions of each other and to re-evaluate and reconsider their own views (Gibbs 2000).

Focus groups can be used at any stage of a study, either as a method in their own right or as a complement to other methods (Gibbs 2000). They are an excellent way to explore ideas and can be used to decide what themes, and concerns are important to a particular audience (Lawrence and Berger, 1999). In this study, the online focus group of a panel of experts was used to discuss the framework, gain some consensus, and refine it based on the feedback provided.

The advantages of using focus groups are (Gibbs 2000; Williamson 2002b):

- They allow members to interact and build upon responses of other group members.
- They are able to produce data on a precise topic of interest because they are under the control of the researcher.
- They may elicit information in a way to determine why an issue is important and what is important about it.
- They may provide benefits to participants because it may act as a forum for idea exchange.

- They can allow for greater scrutiny, by direct observation (similar to an interview) and/or by recording the sessions. Later examination of the recorded sessions can provide further insights and clear up uncertainty about what may have happened. Online sessions are of course by nature 'recorded'.
- Focus groups are easy to organise, cheap, and efficient in gathering large amounts of data.

The disadvantages of the focus group approach are (Gibbs 2000; Williamson 2002b):

- Some participants may dominate others in a group situation (this may be possible in an online discussion also).
- The facilitator of the group may influence the group's actions and therefore create a bias. To minimise this occurring careful phrasing of questions is required.
- Although inexpensive and efficient to organise, views of the focus group may differ from those of the entire population of experts. In this study it was felt that the vast experience of the experts (they were selected based upon their previous experience) would go some way to overcoming this.
- Because of the nature of group discussions the researcher has less control over the data produced than in quantitative studies or one-to-one interviews. The facilitator must allow participants to talk to each other, ask questions, and express doubts, while having little control over the interaction, other than attempting to keep a general control on the topic area being discussed.

Focus groups have been used extensively in information systems research, usually in conjunction with other research methods. For instance, Mozzarol and Choo (2003) ran an focus group comprising of eight experts (an expert panel). The focus group was designed to examine the findings from a previous survey and provide in-depth expert assessments of their implications. A study of the level of use of information technology in police agencies in the USA employed interviews, focus groups, and first-hand observation to gather data (Manning 1996).

The use of the Internet to conduct an expert panel

The potential for the Internet as a valuable methodological tool has become increasingly more common with academics (O'Connor & Madge 2003). This is particular true for qualitative data collection techniques such as focus groups, interviews, and the Delphi technique (O'Connor & Madge 2003; Williamson 2002a). The use of the Internet to collect qualitative data is particularly useful in studies concerning information systems. For instance, Molla and Licker (2005) used an expert panel to measure the importance of e-commerce adoption factors in a pilot study. In their study experts were asked to measure the relevance of e-commerce adoption factors using a five-point likert-type scale. O'Connor and Frew (2004) used an email based expert panel to develop, validate, and prioritise a baseline list of potential evaluation criteria for evaluating electronic tourism distribution channels. Finally, Shon and Swatman (1998) used a Delphi type expert panel to measure the effectiveness of Internet payment systems.

4.4.2 Phase Two: Field interviews

Interviews are one of the most common qualitative methods of data collection (Ezzy 2002). Richards (2005 p.38) describes interviews as:

> *Both the most ordinary and the most extraordinary of ways you could use to explore someone else's experience - it is as ordinary as a conversation, and as amazing as a brilliant film.*

Interviews involve asking questions, listening, showing enthusiasm and genuine interest, and at the same time recording what is said. Participants are active subjects whose cooperation, responses and assistance are all essential ingredients that make a successful interview (Neuman 1997). The aim is to obtain a story from the interviewee. From this perspective it is important that a researcher does not lead the participant to answer how they would like them to respond (Ezzy 2002). Field interviews are valuable for micro-level investigation or face-to-face interaction (Neuman 1997), such as in this study. Face-to-face interaction, in an environment that is conducive, can encourage the interviewee to share intrinsic opinions, profound thoughts, and tacit knowledge (Cavana, Sekaran & Delahaye 2001).

A note on the type of small tourism business

Although this study refers to STEs in general, the study focuses in particular on two types of tourism enterprises: small accommodation providers (such as guesthouses, hotels, bread and breakfasts, inns, motels, and even tree houses!), and small tour operators (such as historical tours, safaris, treks, scuba-diving, city tours, and so forth). The study focuses on these two types of businesses because the majority of these are small and they operate in the same manner. That is, they both offer an information intensive intangible product (in the form of an identifiable service), and they focus on attracting customers based on information provided. In other words, the framework is developed for STEs that provide the actual service. This is different from other tourism businesses, such as travel agents, who are intermediaries that specialise in inbound and outbound ticketing and offer a bundle of third-party goods to create a package and are sometimes located in the original place of the customer. Focusing on a particular type of business overcomes industry differences and strengthens validity (Cragg & King 1993, cited in Faggiani 2005), and thus permits for a more accurate and specific framework to be developed.

Previous application of interviews in IS, tourism, small business, and developing country research

As a method of gathering data, interviews have been used extensively across many research areas. In business research, interviews (along with focus groups and observations) are the most common research methods used (Cavana, Sekaran & Delahaye 2001). The use of interviews also has a rich history in information systems research, with both small and large enterprises. In fact, Holliday (1992) cited in Shaw (1999) underscores that in-depth interviews have become a popular tool for collecting data that is rich in detail about small businesses. In developing countries, interviews have also become a popular tool for investigating phenomenon within small enterprises. For instance, Rizk (2006) used interviews to examine the Internet adoption of small businesses in Egypt and Gammack et al. (2004) used interviews in their large

study of SMTEs in the APEC region. The table below displays previous research across different areas where interviews have been utilised.

Table 17: Field interviews in research

IS and small enterprises	Organisations and e-commerce	Tourism enterprises	Organisations in developing countries	Small enterprises in developing countries
(Poon & Swatman 1999; Levy & Powell 2000; Walczuch, Van Braven & Lundgren 2000; Hausman 2005; Faggiani 2005)	(Kirby & Kaiser 2002; Drew 2003; Santarelli & D'Altri 2003)	(Tsai, Huang & Lin 2004; Lerner & Haber 2001; Gammack et al. 2004)	(Martinsons 2002; UNCTAD 2004; Tarafdar & Vaidya 2004)	(Ma, Buhalis & Song 2003; Rizk 2006; Purcell, Toland & Huff 2004)

Note: the table is meant to be indicative not exhaustive.

The advantages of the interview

The advantages of interviews are (Neuman 1997; Cavana, Sekaran & Delahaye 2001; Williamson 2002c):

- They generally return higher response rates.
- They permit the longest discussion. Interviews can last for 15 minutes or hours.
- They have the advantage of allowing telephone interviews.
- An interviewer can use verbal and nonverbal aids.
- They allow for the adaptation of questions as necessary and this flexibility permits the follow up of interesting leads
- They allow for the clarification of questions and nonverbal cues.
- Complex and complete responses more likely.
- The interviewer generally has the opportunity to observe the participants.
- Face-to-face interaction builds rapport and higher levels of motivation amongst participants.
- Interviews are useful for obtaining responses from people who are unable to fill in questionnaires.
- They can provide much richer data than questionnaires.
- Unstructured interviews allow for the flexibility in questioning and the follow up of interesting leads.

The disadvantages of the interview

There are some shortcomings associated with interviews, they are (Neuman 1997; Cavana, Sekaran & Delahaye 2001; Williamson 2002c):

- Higher cost (training, travel, personnel costs, and so forth).
- Unstructured interviews can be difficult to record and analyse.
- Potential for interviewer bias.
- Interviewer characteristics may affect the interviewee, such as tone of voice and appearance.

- Geographical limitations.
- Respondents may feel uncertain of the anonymity of their responses when interacting face-to-face with the interviewer.
- Interviewer variability can be a problem, if more than one interviewer is used.

Concerning this study, the high cost and geographical limitations were two hurdles that the researcher was aware of in the planning stage of this study and was able to work around (planning carefully when each interview could be performed so that they could be carried out in a sequence that would be cost-effective and reduce travel time). To ensure participants of their anonymity each participant was provided with an informed consent form outlining the aims of the study and stating that they will remain anonymous at all times. The interview commenced only after they agreed to participate. The researcher was also aware of other shortcomings of the interview technique such as interview bias, interviewer effect, and the potential impact of the interviewer characteristics. How these were addressed will be discussed in more detail in section 4.8.

Conducting an interview using the telephone

Telephone interviews are well suited to a study when respondents are geographically dispersed (Cavana, Sekaran & Delahaye 2001). In this study, telephone interviews were conducted when the respondent was unavailable at the set time, or it was logistically impracticable to perform the interview face-to-face. The main advantage of telephone interviewing is the low cost and the number of people that can be reached from a wide geographical area in a short period of time. Also, respondents may prefer the relative anonymity of a telephone interview and may feel more comfortable disclosing personal information than in a face-to-face setting (Cavana, Sekaran & Delahaye 2001). Nevertheless, telephone interviews have their shortcomings. The interviewer is not able to observe non-verbal reactions. Furthermore, some people have negative views of telephone interviews given the numerous telemarketing calls that they receive (Cavana, Sekaran & Delahaye 2001). This stigma was avoided in this study because telephone interviews were only used when a face-to-face interview was not possible, and by the time a date was arranged for a telephone interview the researcher had corresponded with the participant (via email or telephone) on a number of occasions and developed a rapport.

Forms of interviews

Although there are different structures an interview may take, it is generally accepted that there are three main approaches. They are, structured, semi-structured, and unstructured interviews (Williamson 2002c), although there may be some overlapping in their application. The semi-structured interview approach was employed in this study. This involves commencing interaction as an unstructured interview such as presenting the primary overall question, and then focusing on managing the process by using certain questions to elicit information. When the information appears to be drying up, the interviewer moves to a set of pre-planned questions (Cavana, Sekaran & Delahaye 2001). This approach allowed the interviewee to expand on responses and allowed the researcher to probe wherever necessary. It also permitted some

deviation from the interview schedule onto topics such as the political and cultural environment, which provided insight into the participants operating environment.

Conducting an interview

Neuman (1997) argues that as the interview involves social-interactions it may be affected or influenced by the context or where it takes place. He calls this the 'gesalt'. In other words the location, whether a café, at home or in the office, is likely to impact on the interview. To overcome this, Neuman (1997) suggests that the interview take place were privacy is afforded and where the participant may not be pre-occupied (such as at their home). In this study, the interviews were carried out at a location chosen by the participants. This was typically in their office, lounge area of their lodge, or in a quite café. However, a small number of interviews were carried out in less than ideal locations. For instance, one interview commenced whilst walking in a village with the owner of a lodge who was on his way into the village centre. Another commenced whilst actually driving in a 'pick-up' truck whilst the interviewee dropped off packages to residents in a village. The problems associated with commencing an interview in these situations were minimised because the researcher saved the more in-depth questions for once they were located in a quiet spot (such as a café or in their home), and used the time walking or in the 'pick-up' truck discussing more general areas such as the details of the business and the background of the study. At the same time, these situations provided valuable insight into the lives of business owners (particularly rural STEs) that otherwise would not be experienced (refer to section 4.8 for a discussion on the actual interviews).

Cavana et al. (2001) suggest that when the interview takes place a researcher needs to be aware of two types of non-verbal behaviour. One is the non-verbal behaviour displayed by the interviewer, which can impact an interview. The other is the non-verbal behaviour of the interviewee, which can provide rich insight into the progress of the interview and may indicate when to probe for more information or when the researcher has brought up a delicate topic. They provide some guidelines that can lead to a well-executed interview. These were followed in this study and are described briefly below:

- The pattern of the interview: this is the structure of the interview. It involves developing a rapport with the interviewee, bridging communication barriers, and encouraging the flow of information.
- Listening: involves listening to the response of the interviewee and its context. This involves concentrating on the substance to make sure that the message is understood, and also listening for what is not said. This may require further probing.
- Paraphrasing: this involves repeating to the interviewee the response in concise form.
- Probing: this involves 'drilling down' for responses.
- Non-verbal behaviour: this involves being aware of any non-verbal behaviour.

Instrument preparation (interview questions)

One common theme in the literature discussing research conducted in more than one country is that of language equivalence. That is, questions may have different meanings to different people in different

countries (Bulmer & Warwick 1983). This means that the interview design is critical to the outcome of the investigation. In some cases, the same question may have to be phrased quite differently when put to people of different ages or socio-economic backgrounds (Manaster & Havighurst 1972) (refer to section 4.8 for an in-depth discussion on issues associated with cross-national/cultural research).

Warwick and Lininger (1975) cited in Bulmer & Warwick (1983) suggest a number of guidelines that can be employed to combat the shortcomings and potential bias in question design. They propose specifically that eight questions be asked of items in an interview schedule:

- Is it possible to shorten the question without losing meaning?
- Does the question read well?
- Make sure all the words used in the questions are simple, direct, and not unfamiliar.
- Make the question as clear and concise as possible.
- Avoid questions that cover more than one area within the same question.
- Avoid emotionally charged words or threats to self-esteem.
- Make sure the question is applicable to the participant.
- Be aware that participants may answer a question in biased ways, such as saying 'yes' to a question without considering the content. Participants may also give answers that are socially acceptable rather than their own perspective.

To avoid using words or phrases that may be misunderstood the researcher spent some time in the local environments conversing with locals. Furthermore, the researcher had already had particular experience in South East-Asia (including Malaysia) and spoke basic Spanish in the case of Ecuador.

Recording interviews

Recording interviews provides many advantages, however, it may not be suitable in many cases where the respondent may feel uncomfortable (Bryman 2004). Flick (2006 p.167) argues against recording, his argument is that *'any hope of making a naturalistic recording will be fulfilled above all if the presence of the recording equipment is restricted*.' During an AISWorld[6] online discussion on the topic of recording interviews it was generally felt that recording was important. The reasons for this were:

- If not recorded, notes will never contain all of what has been said in the interview.
- By having actual transcripts more thorough content analysis can be performed.

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6 AISWorld is an online resource that is a central point to resources related to information systems technology for information systems academics and practitioners (the discussion can be viewed at http://www.qual.auckland.ac.nz/Summary%20Advice%20on%20Taping%20research%20Interviews.txt).

- When work is published, it makes a more persuasive and compelling argument to include actual quotes from interviewees.
- The interviewer is freed to listen and respond.
- Allows better eye contact and development of rapport.
- Allows replay for other team members.
- Note taking keeps the interviewer alert, shows interviewer interest and demonstrates preparedness. However, the interviewer may lose eye contact, and therefore rapport, and possibly lose train of conversation.

The drawbacks were seen to be:

- Some people are made very nervous by a recording device because they know that everything that they have said is documented verbatim and they may be concerned about it ending up in the hands of someone they would not wish to hear it.
- The interviewer may not listen.
- It can be difficult to locate passages on the tape or digital device.
- Cost of transcription may be high.

In this study it was felt that the tape recorder would cause unease (O'Leary 2004) and may inhibit responses. Thus the decision was made not to record interviews. This decision was based on the researcher's previous interactions with small businesses in developing countries. In Malaysia, it was felt that recording interviews might have resulted in less interviews being conducted. It may have also lead to some form of courtesy bias (where the interviewee gives the answer that they believe the interviewer or people who may gain access to the recording would like to hear). Malaysia has rather strict censorship laws in place (Singh 2000) and recording details on how businesses use the Internet may have been seen as problematic for participants. In fact, one participant did make some comments concerning government Internet censorship. Another participant brought up the topic of the tape recorder (he asked if the researcher had one with him) and explained that he preferred that the interview were not recorded. In the case of Ecuador, a number of participants did make some extremely negative comments about the government. The researcher is of the view that this may not have been the case had a recording device been present.

To overcome some of the disadvantages associated with not recording the interviews, the researcher took thorough field notes, paraphrased often to confirm responses and understanding of the question, and summarised and recorded the contents of the interview as soon as possible after the interview (Flick 2006). Furthermore, a hand-held audio device was used to record comments about the interview as soon as possible after the interview was completed and thorough journals and notes were kept. Ezzy (2002) describes journals and memos as a systematic attempt to facilitate the interpretive process that is at the heart of qualitative research. Significantly, a write up of the results was then sent back to participants and they were asked to make comments if any of the details were incorrect. Most participants replied to the email. The response was mainly to acknowledge a receipt of the summary.

'Thanks - had a quick browse through and looks very interesting; hope the Govt agencies get a copy!! (Tourism, Telecom etc).'

Enterprises were also sent an email or telephoned where clarification was required. For instance, a response from a participant (after the researcher had sought clarification on the number of employees that the business had):

'Hi Again...
Regarding about your question, my employees about 3 person
2 Clerk, house keeping.
So next time if you come u know who to contack.
ok....see u bye for now'

4.5 Analysing the data

> *Qualitative data analysis is an interpretive task. Interpretations are not found – rather they are made, actively constructed through social processes.* (Ezzy 2002 p.73)

Although a clear distinction between data gathering and data analysis is commonly made in quantitative research, such a distinction is problematic for many qualitative researchers. For example, from a hermeneutic perspective it is assumed that the researcher's presuppositions affect the gathering of the data, because the questions that a researcher puts to an interviewee is largely going to influence what the researcher will uncover. In other words, the data affect the analysis in significant ways. Therefore, Myers (1997) suggests that it is perhaps more accurate to speak of 'modes of analysis' rather than 'data analysis' in qualitative research.

Qualitative analysis is not governed by strict rules such as quantitative analysis, instead it involves adopting techniques that will permit the researcher to interpret the data and communicate the results (Williamson & Bow 2002). The type of analysis performed typically depends on the data collection methods, theoretical standpoint or area of investigation (Williamson & Bow 2002). Data analysis in most qualitative studies begins during data collection (Ezzy 2002). Authors argue that data analysis that begins only after the data has been collected may lead to many problems, and often researchers will have missed many valuable opportunities that can be taken only at the same time as they are collecting their data (Ezzy 2002). By beginning data analysis in conjunction with the data collection researchers have the advantage of dealing with the large amount of data they are likely to collect, and also places them in a better position to make an informed decision concerning when they have reached saturation point (when enough data has been gathered) (Williamson & Bow 2002). Along these lines, Ezzy (2002) posits that conducting data analysis during data collection results in a more sophisticated and subtle analysis of data.

The philosophy and implications of the case-study method have received considerable attention, especially concerning drawing theories (Perren & Ram 2001). Concerning analysing case studies to develop theory,

the strength of the case study theory is that the emergent theory can be assessed with constructs that can be readily measured and theories that can be proven false. That is the theory is verifiable (Eisenhardt 1989). In this study, this means that the framework can be taken to another location and applied. However, there is also some danger in working with and analysing case studies to draw theory. For instance, when faced with large amounts of data a research can lose their sense of (Eisenhardt 1989). Another potential weakness is that relying on cases only may result in narrow theory, because it is a bottom up approach (Eisenhardt 1989). However, these weaknesses can be addressed by including a wide source of data.

4.5.1 Content analysis

Content analysis one of the most common ways to analyse data (Richards 2005). It is a useful mode of analysis for confirming or testing a pre-existing theory (Ezzy 2002), like the framework in this investigation. As a form of semiotics, content analysis is primarily concerned with the meaning of signs and symbols in language. The essential idea is that words and symbols can be assigned to primary conceptual categories, and these categories represent important aspects of the theory to be tested. Using this method the researcher systematically works through each transcript and assigns codes, which may be numbers or words to specific characters within the text (Ezzy 2002; Dawson 2002). The researcher may already have a list of categories or may read through each transcript and let the categories emerge from the data (Dawson 2002). The occurrences are then counted and comparisons made (Ezzy 2002). The importance of a concept or an idea is uncovered by the repetitiveness in the data (Myers 1997). This type of analysis allows the themes to emerge from raw data. The next step is for the researcher to begin to make statements based on the data analysis, such as possible casual conditions, relationships, and possible strategies to respond to a phenomenon.

In Phase One content analysis involved coding each post made by experts. The data was then grouped into common themes to understand the key points from the data collected. In Phase Two this involved performing content analysis on the data gathered during the field research. This was carried out after each interview and entered into an electronic spreadsheet to allow for more effective and efficient maintenance and searching.

One shortcoming of content analysis (when taken strictly at its definition) is that it often assumes that the researcher knows the important categories *prior* to the analysis. Therefore it is often limited by the interpretation of the researcher. Because of this limitation, qualitative researchers tend to use content analysis in conjunction with other forms of data analysis that are more inductive, and sensitive to emergent categories of data (Ezzy 2002). For this reason, thematic analysis was employed. Thematic analysis is used as an umbrella term to refer to any analysis of words, concepts, and non-verbal clues, and used to describe, content, discourse, narrative, and conversational analysis (O'Leary 2004). However, the use of thematic analysis as an actual data analysis tool by its own refers to examining the data and identifying common subjects, ideas, or arguments. The names of these themes are then used to write up the report (Gomm 2004). This was done in this case as well as using the emerging themes to complement the content analysis,

which was used more extensively. Williamson and Bow's (2000) steps to interpret data (discussed next) were also used to complement content analysis.

4.5.2 Interpreting data

Williamson and Bow (2000) provide a set of steps that can be used as a guide to interpret data. These steps were followed during data analysis in both phases of the study (on each post in Phase One and each interview summary in Phase Two) and are described here:

Transcribe the data

This simply involves entering the notes or audio recordings into an electronic form, making the information more accessible and easier to analyse. This occurred as part of the process in Phase One.

Read through each transcript (or interview summary) in order to familiarise yourself

This is performed because it is critical for a researcher to be immersed in the data and have a deep knowledge and understanding of an interview or observation. The authors' suggests that while performing this it is useful to take notes.

Categorise the data

Categorise the data using coding. This will assist the researchers to think about their data at a more in-depth level, to know how important a particular issue is by the amount of data in a particular category and to be able to think about the relationships between categories.

Playing with ideas

This step can be performed at any stage. It is a useful technique for thinking about the data in different ways and forming new thought patterns and may lead to a greater understanding.

Writing memos

A memo is simply a document used to write ideas or information that may have emerged in the course of the research and analysis.

Conceptually organising the categories

This involves creating categories and organising them conceptually. At this stage, the analysis does not have to be too far advanced. The authors recommend that researchers conceptually organise ideas continuously throughout the analysis.

Undertake word searches

This involves searching for common words or phrases. This is important because it can uncover words or phrases that the researcher may have used frequently.

Form tentative theories

Once completing the previous steps the researcher is at the stage where they can begin to make statements from the data.

Ask questions and check hunches

Finally, before completing the analysis, researchers must go over their statements and make sure they are valid. To achieve this, a researcher needs to check through the data for supporting evidence as well as evidence to the contrary.

4.5.3 Applying the content analysis

Applying this approach the researcher coded the interview transcript assigning codes derived from the existing framework (for instance, CR as customer readiness, EE for enabling environment and so forth). Along with code a description of what was particular about the item was included. These were then placed into a spreadsheet to allow for an overview of the data analysis. In addition to the codes derived from the framework new emergent themes were given the code of *n* (indicating note). Again new themes were also given a description and placed into the spreadsheet to allow for a synopsis of themes. An example of the content analysis is provided in Appendix D.

4.6 Summary of the research methodology

This section discussed the research approach employed in this investigation. After some discussion, it was decided that this study employs an underlying interpretive epistemology. It was observed that this study does have some similarities with positivism and post-positivism. The research approach adopted has many characteristics of the Delphi and multiple-case study method. A detailed description of the expert panel (Phase One), and the field interviews (Phase Two) was provided, and the advantages and shortcomings of each were outlined. Also, the data analysis techniques used to analyse the data were described. Figure 15 graphically represents the research methodology used.

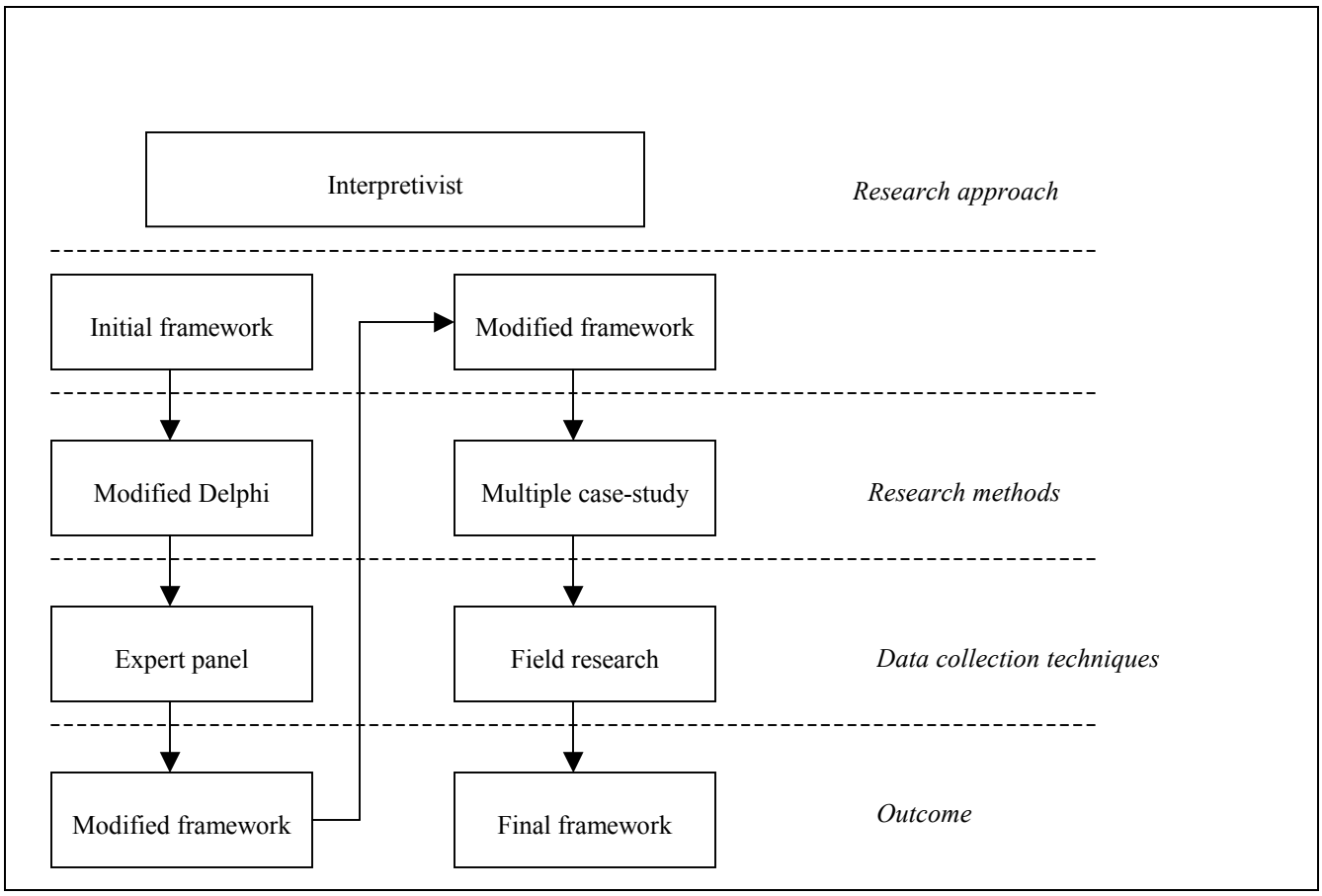

Figure 15: The research methodology

4.7 Validity and generalisability

4.7.1 Validity

Validity is concerned with accuracy and has been one of the issues at the forefront of the debate over the legitimacy of qualitative research. The main argument is that if qualitative studies cannot constantly construct legitimate and valid results, then policies and programs, or other initiatives based on this data cannot be relied on (Schofield 2002). In response to this argument, Maxwell (2002 p.42) posits:

> *Validity is not an inherent property of a particular method, but pertains to the data, accounts, or conclusions, reached by that method in a particular context for a particular purpose*.

Unlike their quantitative counterparts, qualitative researchers are not afforded the benefit of previously planned comparisons, sampling strategies, or statistical manipulations that control for threats. Qualitative researchers therefore have to rule out most validity threats after the research has begun by using evidence collected during the research itself to make alternative hypotheses improbable (Maxwell 2005). Maxwell (2005) identifies two other issues in qualitative studies that can impact validity. The first is 'researcher bias'. This occurs when a researcher selects data that fits the researcher's existing theory. The other issue is 'reactivity'. Reactivity is concerned with the influence of the researcher on the setting or people studied, and is a problem raised often about qualitative studies (as reactivity is concerned with the influence of the researcher it is more aligned with action research).

The use of multiple methods to corroborate data sources increases the reliability and validity of the research. Where several data sources and different methods are used it is called triangulation. The premise behind triangulation is that different sources back up certain claims, which strengthen the study findings. This is important in qualitative research because all interpretations are subjective, therefore it is important to demonstrate how the one arrives at certain conclusions.

In this study a combination of secondary data, observation and interviews were used. Secondary data in particular was used heavily to inform and verify the findings. Another way of increasing the validity consists of showing the research participants a summary of the findings for their interpretation. This took place in the field research and significantly, subjects were contacted where necessary to clarify data gathered and verify research findings. (Sections 6.3.1 and 8.1.3 discuss some issues of bias and validity.)

4.7.2 Generalisability

Generalisability refers to the degree in which one can extend the statement made on certain situations or populations to other situations or populations (Schofield 2002). As with validity, there are a number of issues surrounding generalisability in qualitative research. Nevertheless, there are only limited advantages in using quantitative methods when it comes to generalisation, as the scope of the statistical generalisation is limited to the population selected. Beyond that population, the problems and their solutions are the same, regardless of whether quantitative or qualitative methods are used (Blaikie 2000). The generalisability of qualitative studies is not based on explicit sampling of some defined population to which the results can be extended but on the development of a theory that may be extended to other cases (Yin 1994) (such as in this study).

According to Maxwell (2002) there are two types of generalisability: generalisation within a community, group, institution, persons, events, and settings that were directly observed or interviewed; and generalising to other groups, communities or institutions. Maxwell (2002) refers to the former as internal and the later as external generalisability. This study is concerned with both of types of generalisability. It is important that the study results are generalisable to the participants of the study. At the same time, steps are made to apply the results to STEs in developing countries generally (and thus the selection of two varied developing countries). In this study however, the researcher is not claiming absolute certainty of the results in regards

to external generalisability (as is the case with positivist studies or quantitative approaches), instead the researcher is prepared to let the reader make judgments as to the applicability of the results based upon the research method used. However, the researcher does claim 'general usefulness' of the framework for STEs in developing countries.

Generalisability can be enhanced by studying the same issue in a number of research sites, using similar methods of data collection and analysis (Schofield 2002; Blaikie 2000). The possibility of studying numerous heterogeneous sites make multi-site studies one potentially useful approach to increasing the generalisability of qualitative work (Schofield 2002). This occurred in Phase Two of this study. In this phase, two countries were selected, and data was collected from a number of different sites. It was decided that two heterogeneous countries would be selected. Blaikie (2000) suggests that a decision would need to be made about whether multiple sites should be homogeneous or heterogeneous. Similar results from heterogeneous sites may be more useful than those from homogeneous ones. Heterogeneity can be obtained by searching out sites that will provide maximal variation (Schofield 2002). The main disadvantage of multi-site research is the cost and the time involved (Blaikie 2000).

> *the risk in choosing heterogeneous sites is that results may be very different. While this might not contribute to the generalizability, it will certainly raise further research questions and stimulate theory generalizability.* (Blaikie 2000 p.255)

Schofield (2002) warns of the dangers of multi-site studies. She posits that researchers need to be aware that they do not make a trade off between the increased potential for generalisability flowing from studying a large number of sites and the increased depth and breadth of description and understanding made possible by focusing on a small number of sites. In this study a number of different decisive factors were considered in the selection of the two country cases. This ranged from level of development, ICT rankings, and cultural and political background (refer to Chapter Six for a discussion on the selection of the two countries).

4.8 Cross national/cultural research & research in developing countries

> *A study can be said to be cross-national and comparative if one or more units in two or more societies, cultures or countries are compared in respect of the same concepts concerning systematic analysis or phenomena, with the intention of explaining them and generalizing them. The expectation is that the researchers gather data about the object study within different contexts and, by making comparisons, gain a greater awareness and a deeper understanding of social reality.* (Hantrais & Mangen 1996 p.1-2)

> *Rather than each researcher or group of researchers investigating their own national context and then pooling information, a single researcher or team of researchers may formulate the problem and research hypotheses can carry out studies in more than one country, using replication of the experimental design, generally to collect and analyze new data. The method is often adopted when a smaller number of countries is involved and where researchers are required to have intimate knowledge of all the countries under study. Where a single researcher or team from one country is carrying out research in two or more countries, it is generally described as the 'safari' approach'…'this approach usually combines surveys, secondary analysis of national data, and also personal observation and an interpretation of the findings in relation to their wider social context*' (Hantrais & Mangen 1996 p.4)

This section will discuss cross-national and cross-cultural research. Over the last decade there has been a shift amongst researchers towards an interpretive perspective when performing cross-national/cultural research. Hantrais and Mangen (1996 p.5) argue that the more widespread used of the interpretive approach in cross-national/cultural research in the social sciences has meant that '*quintessential linguistic and cultural factors can no longer be downplayed.'* The purpose of this section is to describe some of these issues in the context of research in developing countries.

4.8.1 Cross-country samples

> *Whenever a researcher designs a study involving two or more cultural groups, the problem of drawing equivalent samples will be a major if not the major, methodological obstacle to overcome satisfactorily.* (Lonner & Berry 1986b p.85)

Researchers need to be aware of the issues surrounding the selection of matched samples in different countries when conducting cross-national/country research (Cavana, Sekaran & Delahaye 2001). In particular, researchers need to consider the nature and types of organisations studied, whether subjects are from rural or urban areas, their ethnicity, and similar issues. Often studies of one village or town are treated as if they representative of all villages in the area or towns in the country. Although some generalisability may be applied, it is important to consider that size, centrality, history, economic base, and many other factors mean that each place is to some extent exceptional (Peil 1983). At least two or three places should be selected before generalisation may be justifiable (Peil 1983). At the same time, selecting a representative sample so that no systematic bias occurs is a difficult task (Cavana, Sekaran & Delahaye 2001).

Following Peil's (1983) suggestion, a mixture of areas was selected. In Malaysia this transcended the two provinces of Sarawak and Sabah. It included two rural areas, three semi-rural areas, and four cities. Likewise, in Ecuador the selection of enterprises covered two rural areas, three semi-rural areas, and one major city area (as well as a number of outer suburbs).

The mix of countries selected in cross-national/cultural studies affects the quality of comparability (Hantrais & Mangen 1996). This was an issue in this study. The researcher was faced with many questions. How many countries should be selected? Which countries? Which continents? What type of country? What stage of development? Ultimately it was decided that two countries would be selected for the study (it was financially impossible to select more). It was also decided that the selected countries should be from different continents. They should be experiencing different levels of development, vary in terms of language, religion, government type, and importantly have quite different national levels of ICT or e-readiness. By selecting countries that were quite different it was felt that the results of the study could be applied more generally to STEs in developing countries. As observed in the last section, the results of a study can be more generalised if two of more sites are selected (Schofield 2002; Blaikie 2000).

The sample

In many developing nations, sampling according to standard principles poses formidable problems. There are usually no central registries of businesses and citizens, complete data of who is doing what, and directories of home addresses (Bulmer 1983b). This means that basic statistics that one would be accustomed to in developed countries are incomplete at best. Bulmer (1983b p.91) caution on the use of texts for sampling:

> *[They] were not written with the developing countries in mind. There are usually no sampling frames, no central registry of all citizens, no census tracts with home addresses, no comprehensive directories of who's where.*

In support of this Peil (1983) suggests that in many countries small businesses are under represented because authorities are unaware that they exist, and where they are known they are hard to find. Likewise, Giamartino (1991) made the following comment in regards to the types of data and statistics kept by the USA compared to developing countries:

> *Anyone who has worked in developing economies such as those in Latin America and Asia knows that such sophisticated data not only do not exist, but that there is little basis for expecting collection of such data in the near future*. (Giamartino 1991 p.91)

Along these lines, Lonner & Berry (1986) posit that 'rule number one' is that drawing a truly representative sample may be possible only when the population is extremely homogeneous and some type of accurate current list or registry can be used as a sampling framework. This issue is compounded because there are also many research topics where little scholarly information exists, and that which is available is rudimentary, out of date, or misleading (Peil 1983). Some authors suggest different solutions to combat these issues:

- Manaster and Hainghhurst (1972) suggest that the most one can do is fully describe each of the two cultures and point out the differences between them.

- Peil (1983) suggests a researcher should use a wide a variety of sources to combat this issue.

This was found to be the case in this study. Using a mixture of online and offline techniques the researcher found that there was no truly identical registry of STEs and statistics on Internet adoption. In the case of Ecuador, there was not even a reliable account of the number of tourists received each year (this was further highlighted in the discussions with STEs in Ecuador who seemed confused by the official statistics released each year and felt that these were not a true reflection of the numbers of tourists received). Furthermore, while there was an abundance of literature on small enterprises and ICTs in Malaysia, there was very little available on Ecuador. This may be a result of the fact that the government and private sector is doing little in terms of ICTs in Ecuador.

To combat the issue of incompatible sources of data between the two countries samples, the researcher needed to use multiple sources to build to the initial selection of STEs. For instance, as described in Chapter Six this involved, using government tourism sites, commercial sites, as well as traditional media such as guidebooks. The issue of finding literature on small enterprises and ICTs in Ecuador was not so easy to counter. This was something of a vicious cycle; research is needed because so little is known, but there is so little information that it hinders the planning and conduct of the study (Peil 1983).

Performing cross-national and cultural research

Peil (1983) suggests that before entering the field, as a first principle, researchers need to gain as much knowledge as possible about the local situation. This involves becoming familiar with the geography, history, politics, and culture of the people to be studied and in this case the business and ICT environment. This often requires crossing different disciplinary boundaries. This poses many problems, especially in countries where statistics are grossly inadequate or non-existent and in areas that have been studied very little (Peil 1983). This is another example of the cycle created by a lack of available data.

As part of the background research, consideration needs to be given to the type of people that the researcher will interact with. For instance, in rural areas of developing countries the percentage of people that do not understand a social survey may be as high as 15 percent, whereas in a country like the USA it may be as low as one percent (Bulmer & Warwick 1983). It is also important to consider carefully how people will be contacted. Telephone interviews are only possible where a country enjoys a high teledensity rate, and postal surveys are only practical where the literacy rate is very high and where people have a recognisable postal address (and the logistical infrastructure is in place) – this is not the case in many developing countries (Bulmer & Warwick 1983), especially in rural areas.

In this study email was the main method used to contact participants. This was because the study was interested in STEs that were online. However, even email is fraught with many challenges such as ‘bounce backs’ (where the email address is invalid), language issues, and poor infrastructure. There are also many practical challenges associated with researching in the context of developing countries. Konstadakopulos (2005) identified in his field research in Hanoi, Vietnam the following issues: locating businesses in the chaotic street system, the inaccessibility of remote enterprises, and the problem of communicating with entrepreneurs.

4.8.2 Issues in cross-national/cultural field research

> *Many researchers find that their well-laid research plans must be modified after arrival in another culture. Some opportunities for data collection disappear and others arise; topics originally considered important seem less so upon first hand examination; political changes make investigation of some topics unacceptable; pre-test data show that changes must be made; and researchers develop new interests given the stimulation of life in another culture.* (Brislin 1986 p.137)

There are many issues associated with cross-national/cultural field research. Some of these have been discussed, such as, locating and contacting potential participants and selecting countries. Brislin (1986 p.8) suggests that many cross-national/cultural problems will never plague the researcher if they choose an appropriate topic for the study in the first place. Neuman (1997) argues that interviewing especially requires special attention in cross-national/cultural situations. There are two main issues that need consideration. The first issue surrounds that of the researcher's background. Most social research is conducted by people from Western countries or by people educated in these countries. This creates the danger of cultural bias - where the researcher's culture, assumptions, attitudes, and beliefs can influence the outcomes of a study. This is unintentional and most social research has some cultural bias, though this is undesirable. Neuman (1997) suggests that the best way to combat social bias is for the researcher to become aware of their own cultural influences and by educating themselves of a diverse range of cultures. Following this suggestion the researcher attempted to make sure of his cultural influences. At the same time however, the researcher was also familiar with the cultures of the two selected countries, having spent a significant amount of time in similar countries in the years leading up to the study. Along these lines field research in a developing country environment can also be affected by the personal characteristics of the researcher. For instance, the social position, marital status, sex, age, and religion of the researcher may influence the research if these characteristics are considered important to the interviewees (Peil 1983). As the nature of the study did not cover any taboo topics or cover any personal issues the researcher believes that these characteristics did not have any impact on the study.

The second issue surrounds the culture of the interviewee and the effect this may have on the interview. The interview situation raises issues such as norms of privacy, ways to gain trust, beliefs about confidentiality, and differences in dialect. For example, in some cultures, an interviewer must spend a day in informal discussions before achieving the rapport needed for a short formal interview. This occurred in this study, where the times set for interviews turned out to be just introductions – after the introduction an interview was usually set for later in that day or the next – turning the interview schedule on its head.

Authors also suggest that researchers need to be aware of a version of social desirability bias – known as the courtesy bias (Neuman 1997; Bulmer 1983a; Jones 1983). It occurs when strong cultural norms cause respondents to hide anything unpleasant or give answers that the respondent thinks the interviewer wants. Similarly, Wuelker (1983) suggests that Asians are far too polite to tell a foreigner anything he or she may not want to hear. Brislin (1986) describes another type of bias, the 'I can answer any question bias', this is

more prevalent in some parts of the world than others, and refers to the deep seated belief amongst respondents that no question should go unanswered - no matter how uninformed the response. Another type of bias that researchers need to be aware of is the hidden premises bias (Brislin 1986). It occurs when respondents try to discover whom the researcher truly represents and what the researcher is really trying to find out. This occurs more often than researchers recognise. In some cases the 'sucker bias' may occur, this is when respondents give nonsense answers to see how much of their foolishness the researcher is willing to record (Brislin 1986). Also, in some cultures bribery, family connections, or the approval of local authorities may be required to access certain groups (Neuman 1997). Refer to section 6.3.5 for an example of this.

These forms of bias' are all excellent examples of how the interview is influenced by social values in the society where the research takes place (Bulmer 1983a). The best way to limit error and bias is by being aware that it exists and has to be countered (Bulmer 1983a). Brislin (1986) suggests some other solutions to dealing with these issues:

- Sensitivity to the interviewee and the time they invest.
- Informing oneself through thorough preparation including extensive readings on the ethnographies of the culture.
- Having a good understanding of the potential range to answers to questions or else the researcher will be unable to make distinctions between honest attempts to answer questions and error of various kinds.

Further to following Brislins' (1986) suggestions the researcher attempted to counter the various forms of courtesy bias by making the interviews slightly informal. As result of thorough preparation the researcher believes he limited the potential for bias.

Language and translation

One of the biggest obstacles in cross-national/cultural studies is that of translation or language (Brislin 1986; Manaster & Havighurst 1972). This is a complex issue, because even in monolingual communities words are often used in different ways and interpreted differently (Peil 1983). By focusing on the tourism industry in Malaysia and Ecuador this obstacle was largely overcome. Tourism (especially involving visitors from English speaking countries) is a large industry in both of these countries (to a lesser extent in Ecuador) and conducting interviews in English was not found to be an issue. In Malaysia there are approximately 7.5 million English speakers out of a population of around 24 million (www.answers.com 2007) (Malaysia is a former British colony). Also, the researcher had spent some time previously in Malaysia and was familiar with what the locals call 'Malaysian English' – the way that Malaysians speak English. In Ecuador the number of English speakers is quite low. There are approximately 65,000 English speakers in Ecuador (Gordon 2005) in a population of around 13 million. However, the USA represents their largest tourism market and thus many tourism entrepreneurs spoke English. Furthermore, a small percentage of participants were of European background (and spoke excellent English) or studied in an

English speaking country. The researcher does speak basic Spanish, although it was not sufficient to comfortably conduct an interview. To overcome the language barrier, the researcher highlighted in the invitation to participate that the interview would be conducted in English. This may have introduced some bias into the study (explored in more detail in Chapter Seven).

4.8.3 Summary of the research methodology

This chapter discussed many aspects of the methodology adopted in this thesis. This study employs an underlying interpretive epistemology. It was observed that the research approach has many characteristics with the Delphi and multiple-case study approach. A detailed description of the expert panel and the field interviews were provided and the advantages and shortcomings of each approach were outlined. It was also observed that content analysis was the main data analysis technique employed. Some discussion was given to the validity and generalisability of the study pertaining to the research method.

The chapter then moved on to discuss some of the issues surrounding cross-national/cultural research and research conducted in a developing country setting. As observed, there are a number of factors that a researcher has to take into consideration when conducting research across more than one country. These include language issues, various types of interviewee and interviewer bias and issues surrounding developing a sample. As observed, authors suggested a number of different strategies to combat these shortcomings. Specific details regarding the selection of participants are provided in the following chapters.

Chapter Five

Phase One: The Expert Panel

5 Phase One: The expert panel

The purpose of this chapter is to describe the first phase of data collection. An expert panel was assembled to conduct the discussion and gain some consensus on the design of the framework. The first section of this chapter describes the assembly and conduct of the expert panel. It begins by describing the selection of the experts and the development of the two online tools used (a website and a ListServ) to carry out the discussion. The second section of this chapter will discuss the discourse provided by the experts and reflect upon this phase of data collection.

5.1 Section One: Development of the expert panel

5.1.1 Selection of experts

As observed in Chapter One, this study draws on theories and concepts from a variety of fields. As such, recognised experts were sought from different disciplines related to this thesis topic to allow for different views and perspectives to be captured. The main areas of expertise sought were: *e-commerce and small enterprises*, *tourism and e-commerce* and *ICTs and small business in developing countries* (or a cross selection of these areas). Industry representatives and small businesses were not considered for this phase, as the perspective of small businesses was captured in the second phase of the study.

Experts were selected from universities based on:

- Publication record (journal articles, conference attendances/papers, and other relevant literature).
- Recommendations by peers.
- Participation in a small business and IT special research cluster.
- Attendance at Tourism Enterprise Strategies 2005 conference in Melbourne, Australia.

The aim was to include five to seven experts. This number was selected to keep the panel manageable and because it would be difficult to assemble a larger number of individuals to participate at one time. It was common that an expert would reply to the invitation to participate stating that they could only participate during a very narrow time frame. Participants were invited to join the expert panel via email between Monday the 27th of June and August the 5th 2005. An introductory email describing the aims of the project was distributed and experts were asked to reply if they were interested in participating. The researcher is alert to the drawbacks of using email as a means to engage expert panel participants. However, it was an appropriate choice given that the panel discussion was to be conducted via this medium. Nevertheless, as will be described there is an excellent cross selection of areas of expertise obtained to inform the study.

A total of 15 experts were contacted. Of the 15, eight replied positively, two 'bounce back' notifications were received (the experts had changed their email addresses and a more recent one could not be found) and four did not reply. One invitee replied to say that he could not participate, but did respond with the

details of a colleague who would be ideal for the panel (ironically his colleague had already been contacted).

A total of eight experts agreed to participate. However, one expert withdrew one week into the panel sighting work commitments as a reason, and two experts did not participate (one of these experts did comment that he would be overseas at the time and would only participate if he had free time to devote to the expert panel). It was expected that a small number of experts that agreed to participate would withdraw. In the end, five experts covering a broad knowledge base participated in the expert panel. Table 18 displays the makeup of the areas of expertise of the participants. Fortunately for the researcher, they represent a good cross selection of the areas this study covers. Although unintentional, all participants in the expert panel were located in Australia (although they were not necessarily Australian). This was not an issue because even though experts were located in Australia a number of them had extensive experience in developing countries. For instance, expert *C* (see Table 18 for expert codes) was involved in a number of ICT projects in Vietnam, Pakistan, and Sudan, expert *E* has extensive experience with SMEs policy and trade in the APEC region, and experts *A, B,* and *D* had extensive experience in ICT and rural and remote areas.

Table 18: Expert area of expertise

Expert Code *	State & position	Department	Areas of expertise		
A	Victorian University, Associate Professor	Information Technology	ICTs and rural impact assessment/ E-commerce & organisations	IS/ business management/ E-business models	Small business and regional portals
B	Victorian University, Dr	Information Systems	Small business & web design and evaluation methods	Innovation and IT in SMTEs	SMTEs and regional areas
C	New South Wales University, Dr	Sociology & Anthropology	Internet & tourism	Internet - sociological perspective	ICTs in developing countries
D	Queensland University, Associate Dean	Information Systems	Rural/ regional and tourism communities	E-commerce / Payment and security systems in e-commerce	Web design and web data delivery
E	Victorian University, Professor	Small Business / Corporate Governance Research	Small business development	Policy & trade in the Asia Pacific	

* This is the pseudonym used to refer to each participant in the discussion of the expert panel.

After the experts confirmed they would participate, a reply was sent with further details of the study and a commencement date. Finally, two days before the panel was to commence another email was distributed as a reminder, and participants were sent a hyperlink containing a URL of a website that described the study

and presented a top-level representation of the framework with a discussion of each step. This would be the first area of the discussion. The discourse commenced on Wednesday the 24th of August 2005 and ended on Friday the 7th of October 2005 (a total of 45 days).

5.1.2 The website

The website was created using the website development package Microsoft FrontPage 2002 and HTML (Hyper Text Mark-Up Language - a language in which web pages are written). While the researcher did have commercial experience with website design, the website was simple in design with little emphasis on graphics and effects. The website contained six web pages. It was designed in this manner so as not to overload the participant with information. A few of the participants offered positive feedback on the design of the research methodology (the online based expert panel) and also the website:

Expert *A*: '*I would like to congratulate you for your website and for your research which has been well considered with an appropriate methodology.'*

Another expert gave a similar compliment:

Expert *D*: '*Firstly congratulations on the presentation of your website and your research, a good innovative approach.'*

The website was hosted on a secure server at Victoria University at the URL www.businessandlaw.vu.edu.au/phdresearch_sk (the website is no longer available). Modifications and updates to the website were performed remotely using FrontPage 2002. Figure 16 displays the home page as first viewed by experts. Screen shots of the final website are included in Appendix B.

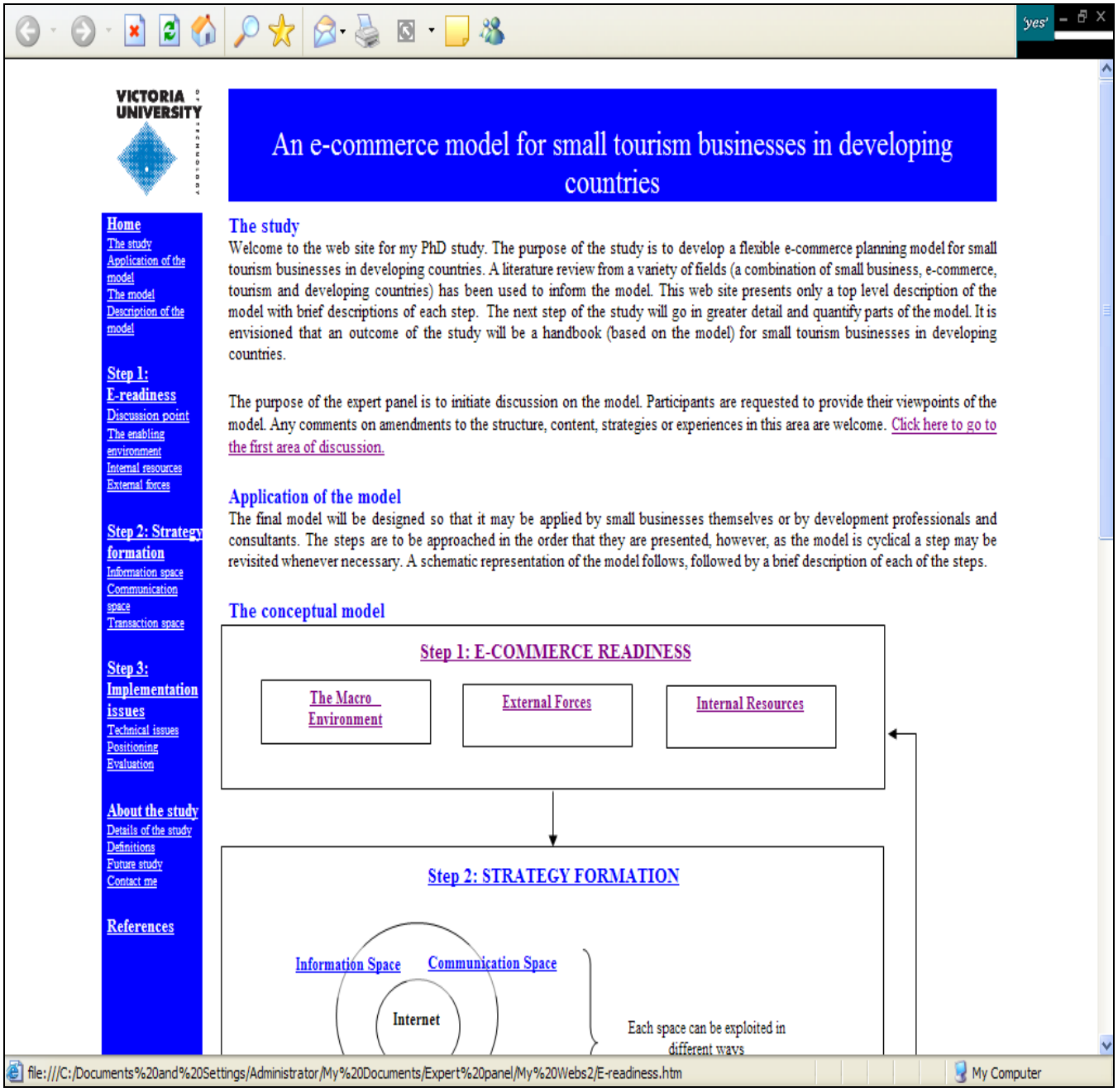

Figure 16: Welcoming screen for the expert panel discussion

5.1.3 The ListServ

The term 'ListServ' has come to be used loosely as a generic term for any electronic mailing list software application. A ListServ automatically distributes an e-mail message to individuals who are part of a certain list. In most cases messages can only be sent or received by members of the list. The mailing list development software used was Sympa, using the Victoria University front end (the software had already been tailored to be used by staff and students). Like other mailing list software Sympa is open source

software (meaning that its source code is made available for modification) that offers users customisation and administration tools. While the setup of a ListServ is somewhat complex, its operation is quite simple.

The first step of the expert panel was to send an email to all participants (via the ListServ) and point them to the website. Participants simply needed to send an email to SMTE_web_model@lists.vu.edu.au or reply to the original email, which was then received by all participants. This method was quite beneficial as participants could respond to previous comments made and each email contained a full trail of previous comments.

5.1.4 Ethical issues (anonymity)

Ethical issues are relevant in all stages of group discussion design, implementation, and presentation (Barbour & Kitzinger 1999). The main issue is confidentiality (Barbour & Kitzinger 1999). Unlike interview participants, group discussion participants cannot be guaranteed anonymity or assured that other participants will respect their confidentiality. Even though it is technically possible to offer anonymity to participants when running an online discussion it was not offered in this study. This was because the nature of the discussion was not considered to be an issue or cause stress or anxiety to participants (the topic is not controversial or taboo). This limited the potential for other ethical issues.

5.1.5 Technical issues

As mentioned earlier, a simple website was developed for this phase using MS FrontPage 2002 and HTML. The ListServ was also quite straightforward to manage. The researcher has an extensive technical background thus this element of the study was relatively straightforward and unproblematic. One issue did arise in the case of expert *E* who explained that he could not open the website whilst working in Korea. To combat this, the expert provided his feedback on the framework to the researcher in a face-to-face setting (when he returned to Australia) and his comments were then emailed to the remainder of the experts through the ListServ.

Victoria University supplied the necessary hosting resources. Likewise, the University ListServ provided not only a useful medium for carrying out the discussion, but also for administering the expert panel and providing a secure repository for all correspondence. In all, time was probably the biggest technical factor - as with any website development, time was needed to design, add content, test, and publish the website. However the hindrance of time was offset by running the expert panel online as opposed to attempting to hold the panel in a face-to-face environment or using a traditional medium such as 'snail mail', which generally takes a lot longer.

5.2 Section Two: The expert panel

The previous section discussed the design of the expert panel. This section will discuss the conduct of the expert panel, the data collected, and reflect upon this phase of the study.

5.2.1 The initial framework

The initial version of the framework was presented on the website. It was developed based on the synthesis of the literature discussed in Chapter Two and Three of this thesis. There were three steps to the framework. The first step of the framework is the e-commerce readiness step. This step allows a business to determine its level of e-readiness and what e-commerce activities it can perform (in other words, the capacity of the business to engage in e-commerce). This step can also be used to identify some of the obstacles involved and opportunities that can be exploited. After the e-readiness assessment is performed, a business is in a position to form its e-commerce strategy. The framework suggests three strategic areas that can be exploited. They are the Information Space, the Communication Space, and the Transaction Space. A business may wish to exploit one or a combination of these spaces. Once the e-commerce strategy has been formed, the framework suggests three implementation issues; they are technical issues, promotion, and evaluation. The initial framework is presented in Figure 12.

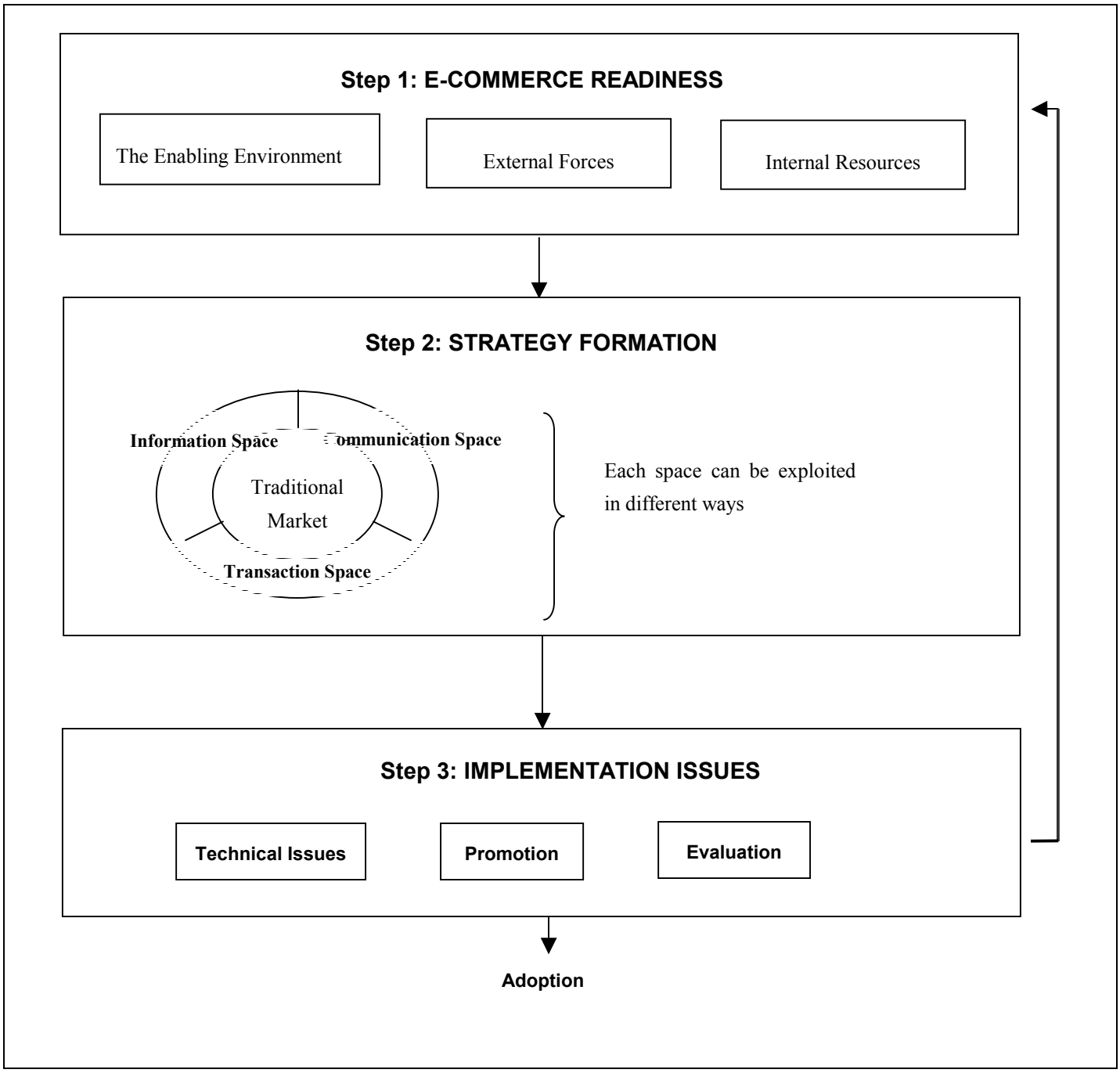

Figure 17: The initial framework

5.2.2 Structure of the discussion

The discussion was limited to three rounds. Each round was based on a separate discussion thread related to each step of the framework. The structure of the expert panel study discussion was as follows.

Thread 1: Overall framework and e-readiness stage.

Thread 2: Strategy formation stage and feedback on the first thread.

Thread 3: The implementation step, discussion on previous threads, and the refinement of the framework

Although each thread aimed to focus on a different area, a participant could comment on any aspect of the framework at any time. Figure 18 illustrates the number of responses to each thread and the structure of the discussion.

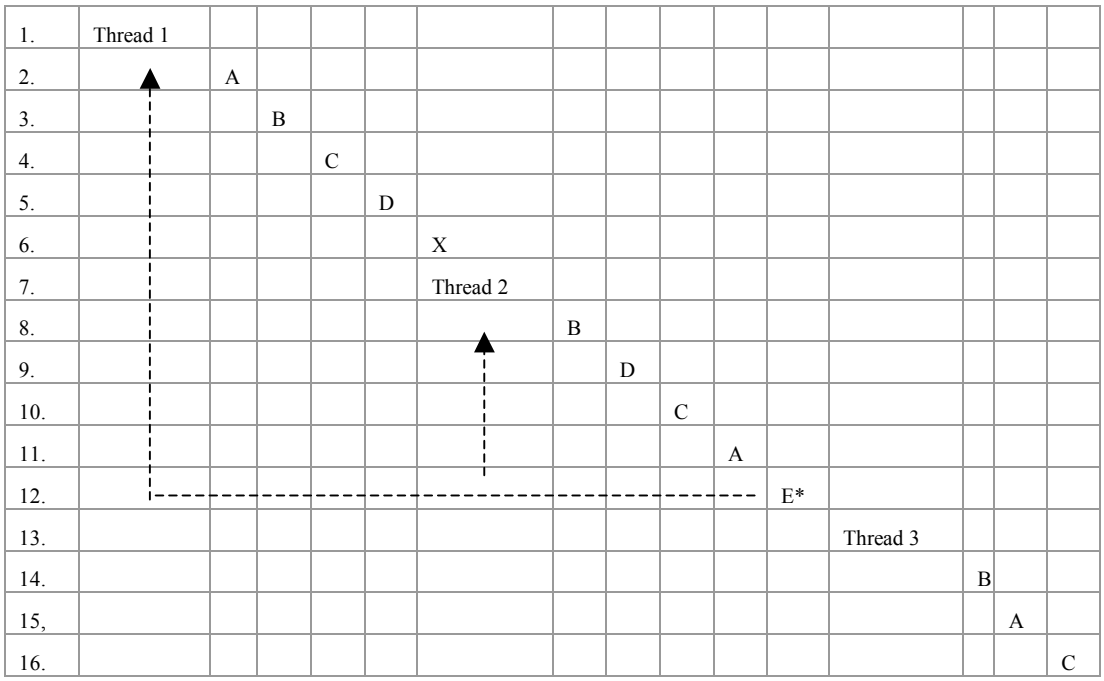

Figure 18: Structure of comments

- Letters (A, B, C, D & E) represents particular experts.
- 'X' & 'Thread' refers to post by the researcher in response to previous comments, or initiation of a new thread of discussion.

Expert E provided his comments to the researcher in a face-to-face setting outside of the ListServ (after returning from work abroad) because he explained that he was travelling in and out of the country and had some issues accessing the website and his email. The researcher then posted these comments to the ListServ.

Email from expert E:

'I am currently in Korea and am not able to open tricky documents. I apologise for not responding to section one, but also had difficulty in opening parts of it. Perhaps it might be better for me to meet with you in person to provide my feedback next week if that is suitable.'

In total, 12 messages were posted. Instead of a large number of shorter posts (which was expected), experts preferred to post a small number of larger, quite detailed posts. Table 19 illustrates the number of posts made by each expert during each thread.

Table 19: Number of expert posts

Timing	A	B	C	D	E	Total
Thread 1	X	X	X	X		4

Thread 2	X	X	X	X	X	5
Thread 3	X	X	X			3
Total	3	3	3	2	1	1

During the course of the discussion the experts tended to agree with one another and although it was initially intended that a Delphi process would take place in this phase, it did not quite eventuate. The major difference is that the Delphi process (when taken at its strict definition) involves multiple rounds of data collection. Even though, this phase of the study did involve more than one round of discussion, each round focused on a different aspect of the framework.

5.3 The expert panel discourse

Note: *During the course of the study the words 'framework' and 'model' were both used to refer to the work. In the end it was decided that the word 'framework' would be used, however at the time of the expert panel the word 'model' was used, therefore comments made by the experts and the researcher in this section refer to the framework as a model.*

This section discusses the actual comments posted during the expert panel. Each thread is discussed individually. However, it is important to remember that some comments were made referring to previous threads.

The extract below is part of the email that was mailed out the experts to initiate discussion.

> Thank you for agreeing to participate in this expert panel. Please visit the web site http://www.businessandlaw.vu.edu.au/phdResearch_sk for details of the model.
>
> The expert panel starts this Wednesday, so please take a look at the model and feel free to make comments. Simply reply to this email to make a comment.
>
> This web site presents only a top-level description of the model with brief descriptions of each step. The next phase of the study will go into greater detail and quantify parts of the model and add strategies.
>
> To begin with I am interested in comments regarding the overall structure of the model. Would it provide a useful e-commerce planning tool for small businesses?
>
> I am also interested in comments regarding the e-readiness component (Step1). I have identified a number of factors that contribute to the e-readiness of a business. Does this provide an effective and

relevant measurement of e-readiness? Is there any disagreement with the factors suggested or any possible additions?

5.3.1 Thread One: The overall structure of the framework and the e-readiness assessment

The overall structure

Comments relating to the overall structure of the framework were on the whole positive. Comments were made suggesting that the framework was a good start, it was 'needed' and relevant, and that the framework appears to provide a useful tool for small businesses (experts *A,B,C,E*).

'Would it provide a useful e-commerce planning tool for small businesses? Certainly appears to address many of the small business issues with respect to e-commerce that I have encountered (from a developed world perspective)'. (Expert *B*)

'My experience is that the single biggest factor with SMEs and ecommerce is a complete lack of business planning combined with and almost ad-hoc adoption of ecommerce. I hope that as your model develops that it will provide a mechanism for SMEs operating in any business sector, that will allow them to achieve successful entry into the world of ecommerce'. (Expert *D*)

Concerning the content of the framework, it was commented (experts *B,C*) that as the framework is applicable to developing countries a business may not move forward from the e-readiness phase, and thus an iterative loop should be included to illustrate this:

'As a general rule the decision to adopt occurs before implementation. In your diagram adoption is positioned after the implementation issues step. Consider positioning "adoption" between the strategy formation and the implementation issues steps to allow the model to be a self-contained iterative loop. Arguably, readiness factors in developing countries may be immature and not conducive to adoption hence, you may not actually proceed to the strategy development stage. Consider some form of iteration at the readiness point to accommodate this'. (Expert *B*). Expert *C* agreed with expert *B* on this *'I would like to stress the point [B] made'.*

Experts *B* and *C* commented that a clearer definition of the term 'developing country' is necessary as there is much conjecture regarding this term.

'The one thing that does not appear to be obvious (this may be in the model's detail) is a greater identification of pertinent "developing world" business attributes that may affect the various steps of the model'. (Expert *B*)

'Moreover, the use of developing countries can be (and is) misleading. What do you mean by this. For example, there is a large difference between Vietnam and Thailand. And between India and Pakistan. And so on. You need to clearly define what you mean my this term.' (Expert *C*)

Expert *C* also suggested that the definition be broken down further to developing countries and Newly Industrialised Countries (NICs). Finally, expert *C* commented that it is important that the framework is flexible, as different countries face different obstacles. Expert *C* gave the following example:

'Flexibility is very important (for example, in VN [Vietnam] one generally accesses the Internet on 28kb dial up modem while in Taiwan everyone uses broadband). And as noted by B, many STEs probably do not have a long term business strategy. It can be difficult in an environment that changes quickly (government policy, prices, consumers, etc)'.

The E-readiness assessment

This section invoked the largest number of comments from participants. The discussion presented here is in four sub-sections, *the enabling environment*, *external forces*, *internal resources,* and *general e-readiness* comments. A graphical representation of the e-readiness aspect of the framework as presented to the experts is illustrated in Figure 19:

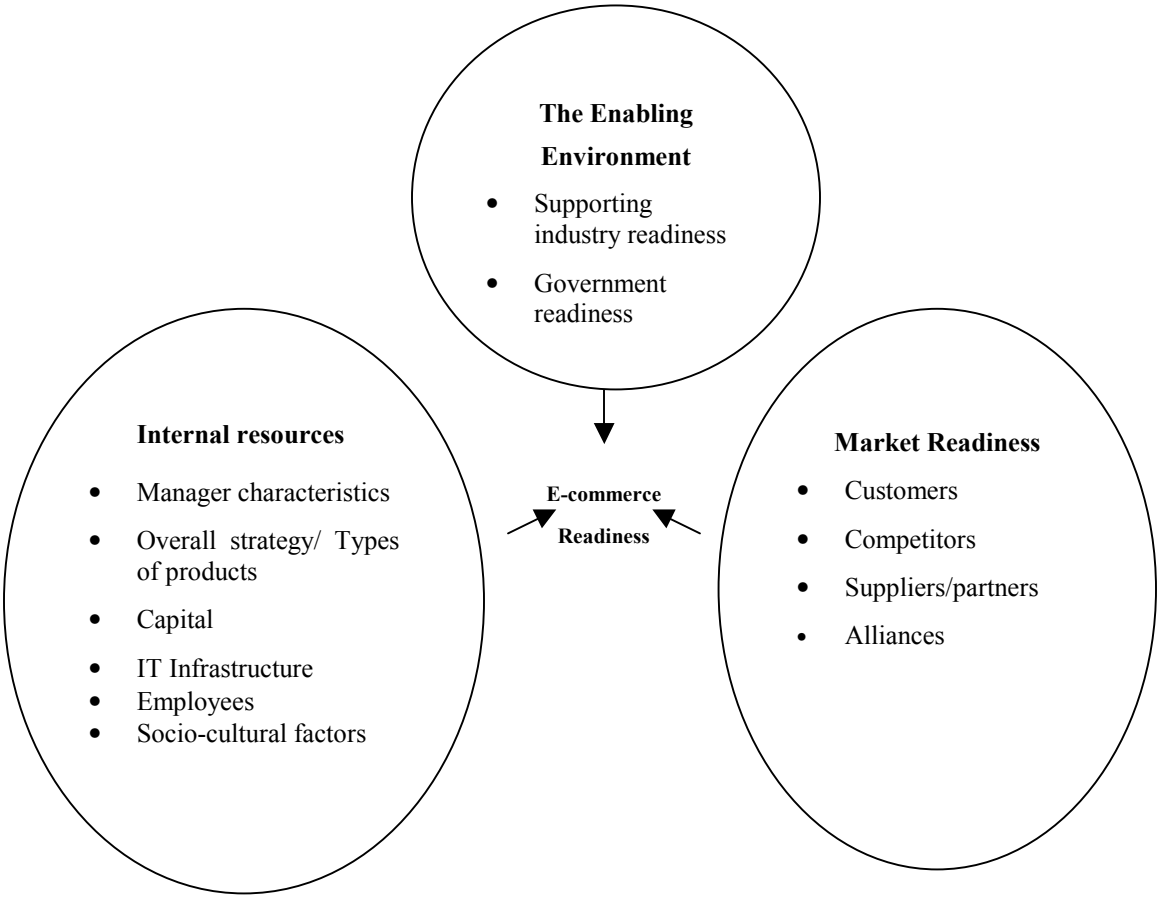

Figure 19: Factors influencing e-readiness

The enabling environment

A number of in-depth comments were made concerning this contextual area. First it was suggested that the title of this area, *the enabling environment,* should be renamed to emphasise that it relates to the macro-enabling environment (expert *B*)*: 'I note that features identified are also beyond the control of the business— they could be considered to [be] part of the external enabling environment. You may consider renaming this particular sphere to reflect this external environment'.*

Expert *E* pointed out that in his experience in the Philippines that the enabling environment is the most important element of e-readiness. Expert *A* commented that *laws and standards* and *trust and security* were missing from this area and should be included because of their importance in global e-commerce (the reader is reminded that security issues are outside the scope of this thesis).

One popular theme that carried on for the duration of the expert panel was the importance and availability of tourism third-party services (such as tourism portals and online travel intermediaries) (experts *B,C*). It was suggested that the availability of these are an important element of e-readiness and was not clearly identified. In the literature review it was observed that online intermediaries (that often go by the name of portals, web-based travel agents, vortals, eMediaries, and cyber-mediaries) play a large role in tourism. Finally, it was commented (experts *B, D*) that while *government readiness* can act as an inhibitor, at the same time governments can offer assistance for STEs and the framework should be modified to reflect this.

'You mention government forces as a barrier to adoption. Maybe this feature should be repositioned within the external forces sphere. At the same time government assistance can be also be viewed as an external resource (contrast with internal resource). You may wish to consider the breaking up the resources area into Internal and External sectors'. (Expert *B*)

Expert *D* agreed with this:

'I also agree with B in term[s] of the location of "Government readiness" because it can be both an enabler (sources of funding for early adopters eg ITOL etc) and a disabler (legislative requirements eg privacy act and government mandates) so belongs as both a part of the enabling environment and an external force. I think that you will find that a number of the factors/barriers within your model can easily be placed in multiple contextual areas for example socio-cultural issues which you list under internal resources is also and external constraint'.

External forces

Another of the major themes arising from the expert panel was that of small enterprise collaboration or small enterprises developing alliances. Collaboration amongst STEs in developing countries was seen as a way of sharing resources and as a strategy of overcoming low e-readiness. There was general agreement on this (this became more evident in the next thread). Expert *A* posited that STEs should look to create alliances with other tourism entities such as large hotels and tour operators. Expert *D* commented that collaborations should be placed also as an internal constraint and must be aligned with the business strategy. At the same time, expert *A* argued that as the focus is small enterprises *'in my opinion the issues you have included for alliances are more suitable for large organisations'*.

Expert *C* suggested in two different posts that more attention should be given to the type of customer, and gave the example *'a portal is critical to develop on-line transactions with overseas tourists. Or locals may prefer a simple page (information) as many use dial-up and/or public Internet cafes (Vietnam comes to mind here)'.*

Internal resources

Focusing on Internal Resources, experts *A* and *D* suggested that STEs tend to be primarily family run and rarely if ever employ outside consultants and IT experts because they are typically too expensive. Along these lines, expert *A* suggested that managers need to be dynamic and flexible and expert *D* proposed that the real question regarding manager characteristics is '*why should I as a SME (may be micro) use e-commerce – what is it that would make the SME an early adopter?'*

Expert *B* highlighted that the reference to employee resources was vague: *'I suspect that employee resources also relates to the skill base of the work force (If this is what you mean then it may be helpful to mention it at this level). If not, the current skill base of employees might be considered to be important in enabling small business readiness'.* Expert *B* also suggested that *IT Infrastructure* be renamed to *Internal IT Infrastructure.* Experts *B* and *C* commented that the construct *overall business strategy* needed to be developed more and may be difficult to quantify.

General e-readiness comments

A number of general comments were made regarding e-readiness. Expert *D* suggested that STEs that are first to adopt e-commerce will drive change and as such the framework may only be applicable to STEs who are innovative. Expert *D* pointed out that '*early adopters drive the need for e-commerce readiness'* and that an SME '*must have certain characteristics (almost entrepreneurial as well as innovative) in a sense. Once the early adopter phase is complete and the use of e-commerce and IT has shown to be successful then there is much more generalised entry into e-commerce within that sector*'. It was also suggested that the readiness factors within the three contextual areas could be placed in more than one area. For instance, government assistance could be placed in the external forces area (experts *B,D*), and social-cultural factors could be included in the external forces area (experts *D,E*). Expert *C* commented that the e-readiness environment is one that changes quickly.

Response to the first thread

The extract below is taken from an email that was sent to all experts in response to comments made during the first thread. It addresses the comments and suggestions put forth by the experts.

> Thanks to those of you that commented on the model. I will wait a couple more days before updating the model based on feedback and starting the next section of discussion.
>
> A number of key points arose from the comments made, most prominent was the definition of (or lack of) the term 'developing country'. Initially I decided

that for the purpose of the expert panel I would not focus too much on the definition of developing countries. In hindsight, this was probably a bad idea, because, as B and C pointed out this is integral to the relevance of the model. One reason I did not specify the type of developing country was because to begin I was going to focus on Vietnam and Indonesia (similar characteristics), however, my supervisor has contacts in other developing countries, which I may pursue as it may make data gathering easier. I guess the model is (or will be) more suitable for 'developing' countries (or area) with a low network readiness index (a number of different measurements can be used here) and I hope this is something that becomes more evident in the detail of the model after the expert panel has concluded. Typically, countries with a high network readiness index (NRI) are 'more developed' i.e. higher GDP, more industrialised, and those with a lower NRI typically have a lower GDP and are less industrialised.

Some participants noted that a number of the factors identified in the model cut across more than one area. I agree with these comments and I have taken these on board and will attempt to make changes to the model. To do this I have decided to rename the three areas to: the macro environment, market readiness and organisational readiness. Another significant factor that probably isn't clear enough in the model is the readiness or availability of 3rd party e-commerce providers, again I will need to make changes.

An important comment was made about the iterative nature of the model. Even though the model I presented was iterative, I had not considered an iterative loop at the e-readiness assessment step (probably the most important part!). The model will be updated to reflect this.

D pointed out that 'early adopters drive the need for e-commerce readiness'… and that an SME 'must have certain characteristics (almost entrepreneurial as well as innovative) in a sense. Once the early adopter phase is complete and the use of e-commerce and IT has shown to be successful then there is much more generalised entry into e-commerce within that sector.' I do agree with this comment, and this I something that I considered in my study, but something I am unsure about representing in the model.

Lastly, some comments were made about the item 'Overall business strategy' and the ability to evaluate it. I have decided to drop this from the e-readiness step and rather relate back to it at certain points. Some other comments were made about the clarity of some aspects of the model these will

also be addressed.

5.3.2 Reflections on Thread One

While a small number of posts were made in this phase many in-depth comments were put forth. A number of comments were made about the generalisability of the term 'developing country'. This was considered and a narrower definition was adopted for the next thread of the expert panel (a developing country with a lower e-readiness/ Network Readiness Index). However, at the same time it was acknowledged that there are many limitations with this narrower definition. However, it was decided that at this point it was adequate.

The 'iterative loop' was incorporated into the overall framework, and the 'decision to adopt' label was moved. Changes to the labels of the three contextual areas were made to clearly indicate what they represent (refer Figure 20). The Supporting Enabling Environment contextual area has been changed to the Macro Environment. The titles of the other two contextual areas where changed to Market Readiness and Organisational Readiness. Other changes included the inclusion of some factors that were suggested to be missing and some changes to the names of some of the factors. Experts suggested that tourism portals and intermediaries are likely to play a role in adoption, and that this was not clearly indicated in the framework. For this reason, the factor *tourism enablers* has been added in the Market Readiness contextual area. However, it is unclear if a new factor needs to be added or if it can be included in the *suppliers/partners* factor, as tourism enablers (online intermediaries and tourism portals) are essentially suppliers or strategic partners. Also, it was decided that the *overall business strategy* construct should be moved (it is now included as a precursor to the readiness investigation, rather than a readiness factor) based on the recommendations of the experts.

Whilst most participants agreed with the factors that make up the e-readiness assessment, it was suggested that some of the factors could be included in more than one of the contextual areas. There are many relationships between the factors. Some of these have been identified in the discussion, but there are likely many more. Some of the comments concerning the relationships between the factors within the e-readiness step were:

- Customers, suppliers, and competition may influence the owner/manager's decision to adopt.
- Where organisational readiness is low online tourism enablers (tourism portals, eMediaries, cyber-mediaries, and so forth), and collaborations are crucial.
- Like the previous point, where the external enabling environment is not ready a STE may need to utilise tourism portals and intermediaries (from abroad or locally) and form collaborations.
- Government assistance may increase organisational readiness through assistance, but may conversely act as an inhibitor
- External enabling environment is likely to impact internal IT infrastructure.

These comments were taken on board. Importantly for the study, the issue of the importance of collaborations and third-party services were brought up in this thread. There was some discussion as to the characteristics of STEs. Some of these were that they rarely hire external IT consultants and have no formal planning strategy. These views are consistent with the literature.

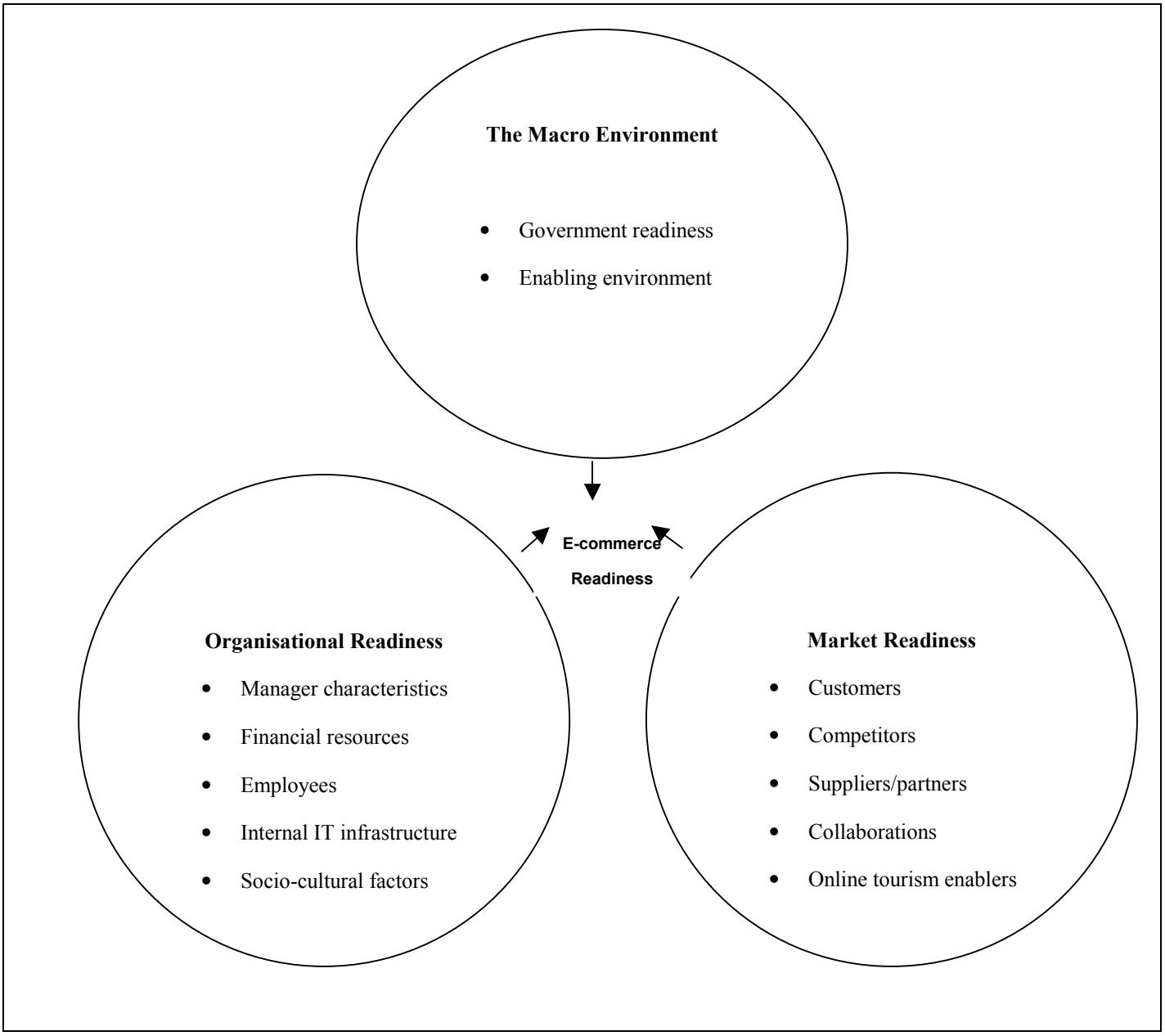

Figure 20: The changes made to the e-readiness assessment

5.3.3 Thread Two: E-readiness to strategy formation

The second thread was based on a discussion on moving from the e-readiness phase to forming a strategy on how to use the Internet. In this step three simple spaces are identified (the Information, Communication, and Transaction Spaces) that a STE may exploit based on the overall level of e-readiness. For instance, a simple Information Space presence (where e-readiness is low) can be established by simply publishing advertising material related to a product or service on a travel portal website, while an advanced

Information Space presence (where e-readiness is higher) might include a sophisticated business website with multimedia presentations. Figure 21 illustrates the different areas of the Internet that can be exploited.

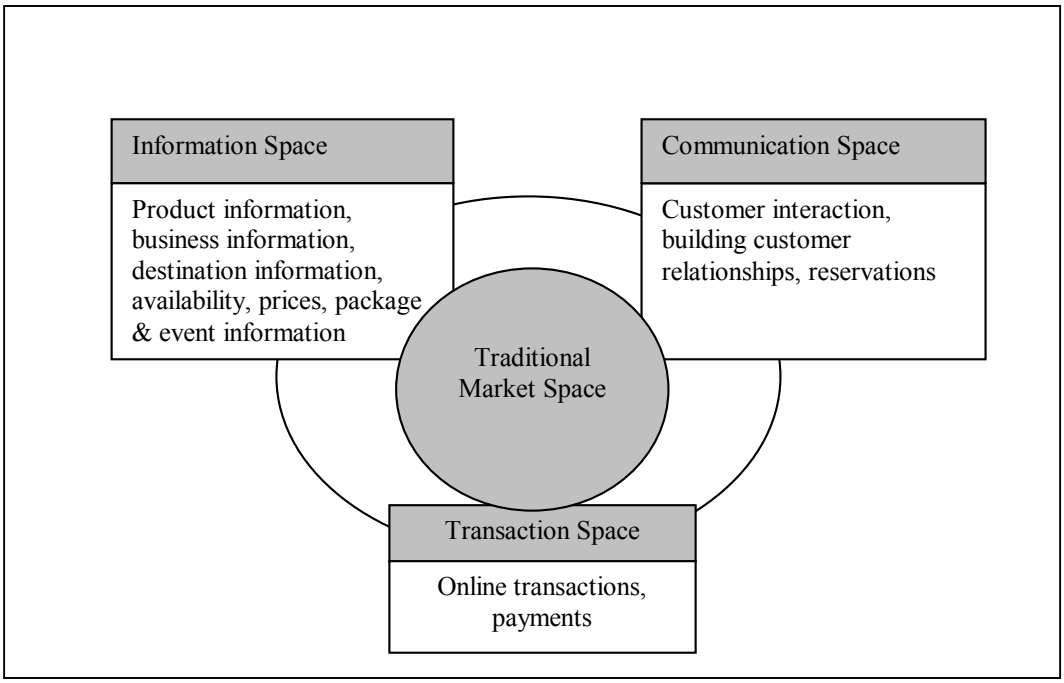

Figure 21: Spaces that can be exploited by the Internet

5.3.4 Discussion of Thread Two

As observed in the first thread a recurring theme of the discussion amongst experts was that of *collaboration* amongst STEs in developing countries as a way of sharing resources and as a strategy to overcoming low e-readiness. In this thread, this topic was mentioned on more than one occasion with experts *C* and *D* referring to collaborations as an important strategy to overcome low e-readiness. Expert *D* also commented that collaboration amongst STEs could be a way of promoting a region or location. In fact, experts *C* and *D* suggested that it be included as a separate space. Expert *B* also agreed with this in a later post but suggested that further investigation may be required to confirm the decision to include it as a stand-alone space.

'I looked at the model and I wonder where you would place consideration of c-commerce or collaboration with other local tourism suppliers as part of a co-operative business strategy between competitors to raise the public awareness of the particular region/locale that this proposed SMTE is operating in. You may argue that this can occur through the use of a portal site but it still involves the establishment of strategic alliances and in fact may hark back to the concept of virtual organisations. I think this needs to be considered here as a separate issue during the strategy development phase as it has important impacts on web site development, marketing plans etc'. Expert D. Expert C made some similar comments:

'The development of a local business strategy through collaborative networks of tourism suppliers is critical for SMTEs in developing countries. How can this be built in as a central strategy? Most SMTEs in developing countries probably have a relatively low e-readiness. How can SMTEs better exploit what D terms "strategic allies"? The development of this as a separate concern may provide an alternative strategy whereby SMTEs can better (and more quickly) create and or/expand their on-line presence. Both D and B provide useful suggestions and insights on this'.

The importance of third party services, in particular tourism portals, again arose. This time it was in the context of these services to exploit the Information Space (expert *B*). Expert *B* suggested that STEs consider membership to a tourism industry portal as a way of overcoming low e-readiness. Along these lines, it was suggested that portals are a way of sharing infrastructure and exploiting the Transaction Space (experts *B,D*). Expert *B* also pointed out that the use of a portal *'can also reflect important local or regional relationships between tourism groups, which in turn may promote new cooperation and alliances'*, and *'consider increasing the level of portal importance in the model'.* This is something expert *C* agreed with. Expert *D* also concurred that portals can be used to promote a region, but argued that even though collaboration with other tourism operators can occur through a portal it still involves the establishment of strategic alliances.

Expert *B* suggested that perhaps a B2B space should be included to reflect B2B relationships. Again, expert *C* brought up the topic of the customer base. Referring to Vietnam, he pointed out that each customer group would have different needs (for instance, local and foreign customers).

'Who are the consumers (local, foreign)? How will they be stratified (on the basis of what)? Who these people are will affect the ecommerce strategy.'

Expert *B* also suggested that permission/opt-in marketing is a Communication Space strategy to attract repeat customers. B continued to say that he wished that more of the associated factors from the first phase were shown at various points. Concerning the three Spaces, expert B also made the following comments:

'The Information Space: The portal publishing medium has generally become important for the tourism industry with a growing number of smaller tourism enterprises tending to utilise a portal listing as an important web presence. Such portal service provides real value for the resource poor SMTE allowing them to have basic web exposure without the need (and cost) associated with establishing their own site. Consider incorporating membership of, or participation in an industry based tourism portal as an important strategy for SMTEs which can be achieved at a low readiness phase.

The communication space: I suggest that permission (or opt-in) marketing is also an important online strategy for smaller tourism enterprises. Permission marketing is very effective and can be easily achieve[d] using periodical e-newsletters that tend to focus on converting the "one-off" customer into the "repeat" customer.

The transaction space: Again a portal can allow the sharing of complex technology such as online payment systems. Sharing of infrastructure in a portal environment will allow SMTEs to access Internet-based services that may not have been possible at the individual business level. Portal membership can also

reflect important local or regional relationships between tourism groups, which inturn may promote new cooperation and alliances. As previously indicated, consider increasing the level of portal importance in the model'.

Response to the second thread

The extract below is from an email that was sent to all experts in response to comments made throughout the second thread. It addresses many comments and suggestions put forth by the experts. While the second thread was taking place the researcher met one of the participants involved in the expert panel at a seminar and the expert suggested that the scope of the framework is too large and recommended that the implementation issues step be omitted from the framework. This would allow the researcher to focus on the first elements of the framework - assessing readiness and exploiting the Internet based on that level of readiness. This was not the first comment that the researcher received regarding excluding the implementation issues step. At a conference and a doctorial consortium in 2005 a number of academics had expressed concerned that the scope of the framework was too broad and suggested that it be narrowed. This issue was broached in the first thread – experts agreed that some STEs would not even make it to the stage of needing to consider implementation issues. The researcher discussed this concern with his supervisor and it was decided that this issue would be put to the panel of experts in the third thread (who by now had become quite familiar with the framework).

Thanks to those who participated in the last phase (I received some additional comments outside of the ListServ - I have pasted those responses at the bottom of the email)*.

I have refined the model based on previous feedback, again please visit: www.businessandlaw.vu.edu.au/phdresearch_sk and post comments on the revised model by replying to this email. This will be the final post (apologies for dragging the expert panel on, a number of participants have been away for sometime).

In the last phase the topic of collaboration became quite popular, I was actually going to include collaboration as a separate space (collaboration space), however, I decided that collaboration is rather a strategy that can be used to exploit opportunities created by the Internet. i.e. STEs collaborating with other STEs to develop a site to promote their specific destination - by sharing the resources businesses may need a lower level of e-readiness.

I also decided to remove the last step Implementation Issues from the model, and focus on developing e-readiness framework and focusing on how small tourism enterprises can exploit the Internet based on their e-readiness. Please let me know your thoughts on removing this step.

5.3.5 Reflection on Thread Two

The discussion of *collaboration* between STEs and the use of third party services (such as portals) continued in this thread. The main theme was that these are important and offer solutions for resource poor STEs. This was taken on board for the next phase of the study. While it was suggested that an additional space be added (the Collaboration Space) it was put back to the participants that collaboration is a strategy that can be used to exploit the Information, Communication, and Transaction Space rather than a space by itself. It was decided to keep this factor in its current position for further examination in the next data collection phase. Changes were made to the framework to reflect that the spaces can be exploited for B2B as well as B2C.

5.3.6 Thread Three: Implementation issues and refinement

In addition to discussing the changes made to the framework the third thread also included a discussion on the decision to exclude the implementation issues phase. The e-readiness assessment step and the strategy formation step were refined based on feedback from the earlier threads.

This thread received the least amount of comments (three comments in total were received). The discussion focused on three themes: the decision to exclude the implementation step, the changes made to the framework, and the issue concerning the area of collaborations.

5.3.7 Discussion of Thread Three

Experts *B* and *C* agreed with the decision to exclude the implementation issues step, expert *A* did not comment on this decision but did say that the refined framework *'looks good'*. Expert *B* and *C* suggested that implementation issues are best left for future research, and that the first two steps provide a formidable challenge. It was also commented by both experts *B* and *C* that an STE may not even progress to this step, and thus omitting it at this stage and focusing on the first two steps is a good idea.

With respect to the removal of the implementation phase: *'The implementation stage is always going to be conditional on Internet adoption by SMTEs and the subsequent formulation of a strategy. From a western/developed country perspective, e-readiness factors are generally accepted as having been addressed by governments and corporations. Research has now started to examine specific aspects of Internet adoption across different industry sectors. In a developing country some SMTEs may never move past the first stage of e-readiness (hence the inclusion of your feedback loop), whilst some enabled/readied SMTEs will consider various strategies based on their perceived adoption views that may be associated with the relative advantage of the technology, compatibility with existing systems/business culture, the technology's ease of use, etc. These two areas (e-readiness and strategy) of investigation provide a formidable and broad challenge to the researcher. When you include an implementation phase in the model you assume a certain critical mass of users that have progressed to this stage— this may not be the case. Consider focussing on the foundations of e-commerce adoption in developing countries and leaving implementation issues/factors to post-doctoral work!!*

The removal of a stage will allow you to concentrate on a specific area of your model and pay attention to detail allowing a comprehensive piece of research to be undertaken. I feel that removing the implementation phase may assist you with a more manageable project'. (Expert B).

Expert *B* commented that many STEs in developing countries would not move past the first step, and agreed with the addition of the feed back loop. Along these lines, expert *C* commented that each STE will have a different level of e-readiness and based on this they will use the Internet in different ways.

B also pointed out that it is not clear how collaborations could be used as a strategy to exploit the Internet and overcome low e-readiness because while it is listed in the External Forces area (in the e-readiness step) it is not anywhere in the strategy formation step (and that this should be clearly indicated). However, expert *B* suggested that this may become more apparent in the next phase, and significant evidence may arise that could dictate where collaborations should be placed.

'You have collaboration under the "market readiness" aspect of the model as distinct from the strategy formation stage. I cannot find collaboration anywhere in the strategy part of your model (which could

contradict your argument that it can be view as a strategy used to exploit Internet opportunities). Consider clearly indicating whether collaboration forms part of step 1 and/or step 2.

Once you move towards testing your model sufficient evidence may emerge allowing you to confirm your decision. On the other hand if your testing finds that SMTE collaboration is significant and worthy as a stand-alone space the model can be altered to reflect this'. Expert B.

Expert *C* agreed and commented that it would be interesting to see what the next phase reveals in regards to collaborations, and suggested that collaborations be placed in both the e-readiness assessment and the strategy formation step. Finally, expert *A* pointed out that the refined framework looks good.

5.3.8 Reflections on Thread Three

While this thread received the least number of posts, it did provide some closure on a number of issues. Although the idea had arisen concerning the exclusion of the implementation issues, the comments presented by the experts in the third thread supported the notion that this step should be excluded from the framework. This would allow the researcher to focus on the first two aspects of the framework. The impact of this is that the framework becomes an e-readiness planning and strategy development framework, rather than a planning, strategy, and implementation framework.

Once again the issue of collaboration was prominent. However, there is still some conjecture as to where it should be included in the framework, but some agreement that further testing is necessary to clearly indicate the role of collaborations. Finally, there was agreement on the changes made to the framework. Figure 22 displays the refined top-level framework.

5.3.9 Summary of the changes to the framework

The process of the expert panel provided a number of in-depth suggestions concerning the framework. As a result, a number of changes have been made to the framework, in terms of both its make-up and its scope. Overall the premise of the framework remains the same and the comments from the experts suggest that the framework is relevant and may be of use.

In the graphical representation of the top-level framework (Figure 22) the circular shapes surrounding the three contextual areas in (the e-readiness step) indicate that these areas are interlinked. There are many relationships between the factors and some of these have been identified in the discussion. (Concerning the e-readiness step, the refined 'e-readiness' step is shown in greater detail in Figure 20). Each of the contextual areas has also been renamed based on the suggestions of the experts to clearly reflect what they represent.

The business strategy factor has been dropped from the Internal Resources (now Organisational Readiness) contextual area and included as an overarching theme – the business strategy initially leads to the idea of using the Internet and thus the e-readiness assessment. As agreed upon by a number of experts, an iterative

loop has been included to indicate where a business is assessed as 'not being e-ready'. The aim of the next data collection phase however, is to identify strategies that can be applied by STEs with low e-readiness.

The refined strategy formation phase now indicates that the framework refers to both B2C and B2B activities. Previously the framework was applicable to both areas, however this was not clear. The link between the two phases (the e-readiness step and the strategy formation) needs further investigation. In other words, how can the three spaces (Information, Communication, and Transaction Spaces) be exploited based on varied levels of e-readiness?

Although the experts agreed that some factors such as *third party services,* the role of *management,* and *collaborations* are crucial for STEs in developing countries, it is still unknown what the most pertinent e-readiness factors are (although at this point the intention was not to produce a final framework, rather the aim was to refine the framework before the second phase of data collection); does the framework (developed from a literature review and refined once through the expert panel) truly represent reality?

There was much conjecture on the issue of *collaborations*, is it an e-readiness factor, a separate Virtual Space or simply a strategy to overcome low e-readiness? Ultimately the experts agreed that further investigation is required to identify the place of *collaborations* in the framework. At this stage of the study, *collaborations* remain in the External Forces (now Market Readiness) contextual area. Finally, based on the recommendations of the experts the implementation issues step has been omitted. This allows the researcher to focus on the first two areas.

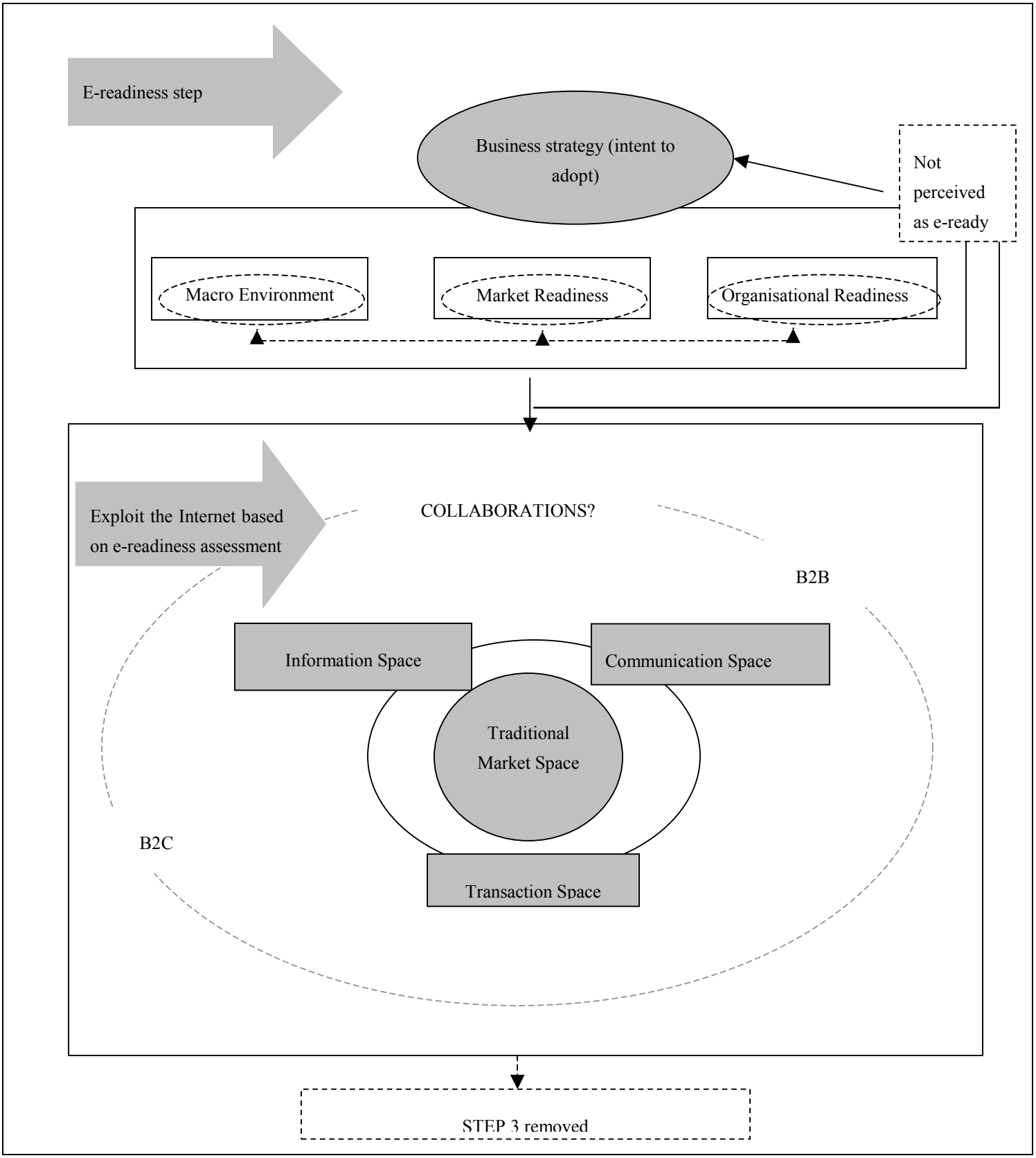

Figure 22: The refined framework

5.3.10 Summary of Phase One

This chapter discussed the first phase of data collection. An online expert panel was used as a vehicle for the discussion. After providing some discourse on the conduct and discussion that was carried out a refined framework was presented. Although the framework has been refined significantly (with one step removed completely), there is still much conjecture surrounding some aspects of the framework. At the same time it was not the purpose of this phase to produce a final version of the framework and seek ultimate answers. The purpose was to narrow the scope and refine the framework. Along these lines, some experts suggested that further investigation is required to develop the framework. The next chapter discusses the second data collection phase.

Chapter Six

Phase Two: Multiple Case Study / Field Research

6 Phase Two: Field research

The purpose of this chapter is to describe the second phase of data collection. This phase involved interviews with STEs in a developing country context. The purpose of this phase was to further refine the framework. This chapter is organised in two parts. First, the selection of the two countries is described, and a description of the political, ICT, tourism, and small business environment in both countries is presented. The second part of the chapter describes the selection of STEs, the conduct of the interviews, and the challenges and issues encountered by the researcher during the field research.

6.1.1 A note on previous cross-national/cultural research

Cross-national/cultural studies focusing on small business are rare in the context of developing countries. Nevertheless, a small number of studies involving dissimilar and similar countries have been performed. For instance, Montealegre (1998) conducted a study of Internet adoption in Latin America (Peru, Chile, Cost Rica, and Ecuador). These countries share location, culture, and a significant level of support from the Organisation of Americas States (OAS). On the other hand, each country is distinct because each has had a very different Internet adoption experience. Similarly, Hawk (2004) performed a study on the different online purchasing methods used by enterprises in five different developing countries (Russia, India, Mexico, Argentina, and Brazil). Although these five countries did not represent every conceivable type of developing country, they were selected because they represented a range of conditions. Hawk (2004) argued that the findings from the Latin American aspect of the study could be applied too more developed nations such as Chile, and those from Russia could be applied to ex-Soviet states such as Ukraine and Belarus. Focusing on telecentres, Salvador et al. (2005) compared field research from countries as diverse as Brazil, Ecuador, South Korea, Peru, Spain, and the USA. Along these lines, Kuwayama (2001) compared the e-commerce and export promotion policies concerning SMEs from two different continents Asia and South America.

6.2 Selection of the two countries

This section reports on the selection of the two countries in which research was carried out. The factors that were used to guide the selection of the two countries will be discussed. Furthermore, this section will report on the political and ICT environments of Malaysia and Ecuador. The purpose of this discussion is draw attention to the environments in which the STEs operate and to present a preface to the reader before discussing the actual data collection.

Before entering into the field a background analysis was performed on the state of affairs in these countries. This formed an important part of the analysis process and helped to explain emerging themes (Dawson 2002). The contemporary nature of the subject meant that extensive documentation was available, particularly in the case of Malaysia. However, equivalent data was not always available for Ecuador. This

is a common predicament in cross-national studies (Peil 1983). The background investigation involved an in-depth investigation of the e-commerce environment. It also branched out into more general areas, such as the economy, culture, and political climate (Peil 1983; Bulmer & Warwick 1983). This approach has been used in other ICT studies in the context of developing countries (Montealegre 1998), and entails a thorough review of journal articles, government reports, institution reports, and other relevant literature. Instructive sources of information included international organisations focusing on ICTs, small business, tourism, and development (for instance, the International Telecommunications Union [ITU], United Nations Industrial Development Organisation [UNIDO], World Tourism Organisation [WTO], United Nations Conference on Trade and Development [UNCTAD], World Bank, Inter-American Development Bank as well as more niche institutes such as OneWorld, LearnLink, and the AsiaFoundation). Again it is important to point out that much more information was available concerning ICTs, tourism, small business, and development in Malaysia than for Ecuador.

6.2.1 How the countries were selected

Malaysia and Ecuador were the two countries selected for a number of reasons. One of the main reasons was that it was felt that it was necessary to select a developing country that had a developed infrastructure, strong enabling environment, and favorable policies towards ICTs (a country with a high e-readiness ranking by developing country measures), and another country, where these elements were lacking (or a country with a low e-readiness ranking). The researcher acknowledges that using e-readiness indexes has limitations. Therefore other development indictors were used, such as teledensity, GDP, as well as other ICT and economic indicators. As the intention was to explore two diverse countries, other country distinguishing characteristics such as culture, religion, geographic location, and government type were also considered. Adopting a broad range of criteria allowed for data to be collected across two differing developing countries experiencing varied stages of development.

The selection of two smaller countries (in terms of surface size) was also important for funding and logistical reasons, as funding for the study was very limited, and field research involved traveling throughout these countries, typically overland, to meet with STEs. Malaysia proved to be a convenient choice as the researcher was attending a conference in Kuching. Figure 23 displays the geographical dispersion of the two selected countries.

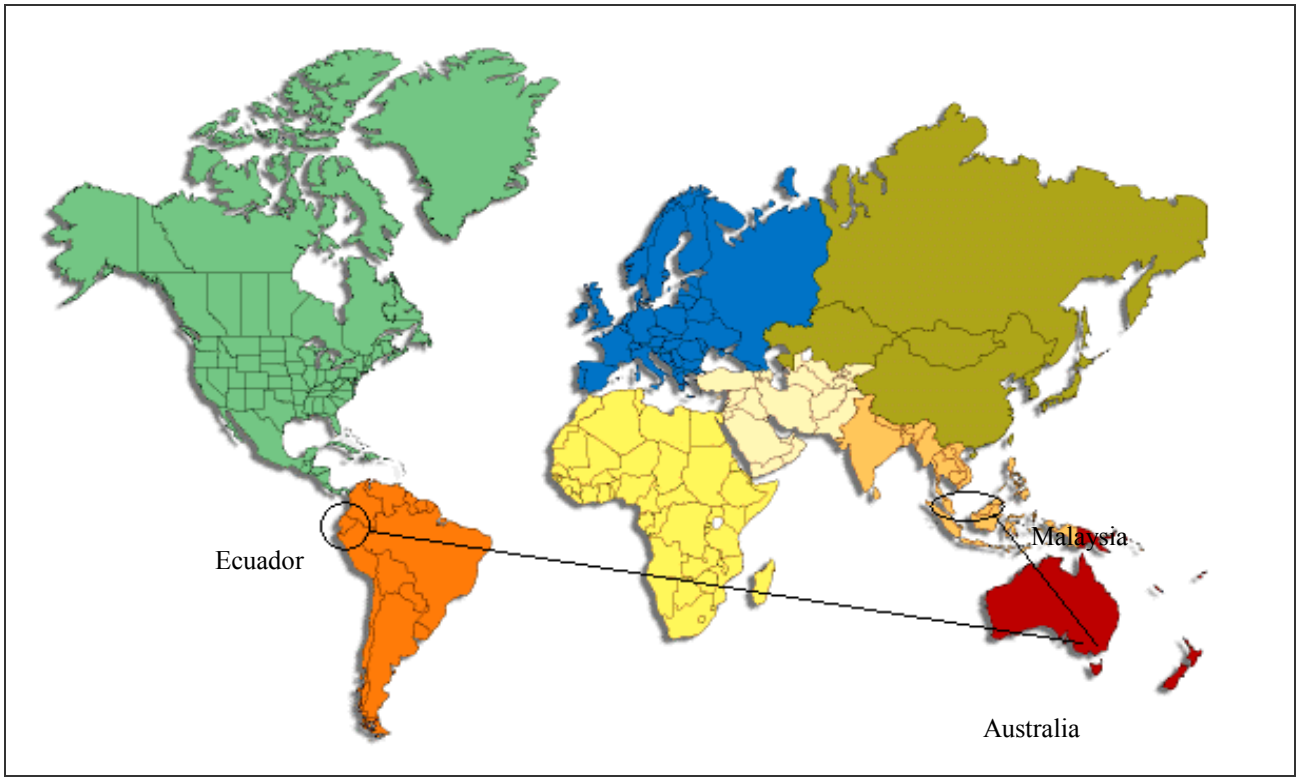

Figure 23: Data collection locations
Source: adapted from www.worldatlas.com (2007)

Several different e-readiness rankings were utilised to select the countries (displayed in Table 20). According to various e-readiness rankings Malaysia has sustained a stable yet slow increase in rankings over the period 2003 – 2007. This suggests that Malaysia has made some steady progress. Ecuador's rank continually decreased from 2000 to 2007, suggesting that ICTs have not been a political priority. The purpose of the Table 20 is not to primarily contrast the two countries but to place into context their ICT and business environments. At a glance one would expect that Malaysian small businesses would be operating in a far more conducive ICT environment than their Ecuadorian counterparts. Tanburn and Singh (2001) classify Malaysia as a having a '*middle-level'* of readiness, along with the likes of more robust and industrial economies such as Taiwan, Spain, and South Korea. Whilst they classify Ecuador as having a '*lower- level'* of readiness' in the same category as countries such as Vietnam, Kazakhstan, and Peru. Therefore according to Tanburn and Singh (2001) one *middle-level ready country* and one *lower-level ready country* have been selected.

Table 20: Malaysia and Ecuador readiness rankings

	Economist Intelligence Unit	**Economist Intelligence Unit**	**Network Readiness Index**	**Network Readiness Index**
YEAR	*2003*	*2007*	*2001-2002*	*2004*

Malaysia	33/64	36/67	36/75	27/104
Ecuador	49/64	59/67	71/75	95/104

Compiled from: (EIU. 2004; EIU. 2007; Kirkman et al. 2002; Dutta & Lopez-Claros 2005)

Tables 21 and 22 identify some key characteristics for the two countries. Interestingly, the economic position, ICT infrastructure, and tourism arrivals are different in both countries. These general factors may help explain some of the differences in the data gathered from these two countries. The main demographic differences are religion, language spoken, and population. In terms of tourist arrivals, Ecuador receives a much smaller amount than Malaysia, where tourism is a major industry. Both countries export large amounts of natural resources. However, Malaysia is also a large exporter of electrical and electronic products, whereas Ecuador's exports are somewhat more one-dimensional (oil and bananas). The countries are relatively similar in terms of surface size (the intention was to select two relatively small countries). Another similarity is that, like most developing countries, both Malaysia and Ecuador have very large rural populations.

Concerning economic data, Malaysia's GDP far exceeds Ecuador's (even when taking population into account). Malaysia has also maintained a high level of economic growth since the turn of the millennium while Ecuador's has been sluggish. Similar differences can be observed in the GNI per capita.

Table 21: Malaysia and Ecuador at a glance

	Religion	Government type	Population (2005)	Rural % of population	Main Exports	Languages	Surface area (sq. km)	Tourist arrivals 1990 - 2000 – 2004
Malaysia	52% Muslim, 17%Buddhist + other	Federal constitutional elective monarchy	25.3 million	43.3%	Rubber, palm oil/palm products, petroleum, liquefied gas, timber & timber products, electrical/electronic products, articles of apparel & clothing	Bahasa Malaysian, English, Tamil, Chinese	329,740	7,446,000, 10,222,000, 15.703,00
Ecuador	95% Roman Catholic	Democratic Republic	13.2 million	35.7%	Petroleum, bananas, shrimp, coffee, cocoa, cut flowers, fish	Spanish & numerous indigenous tongues	283,560	362,000, 627,000, 793,000

Complied from: (www.tourism.gov.my 2006; www.ecuadorexplorer.com 2006; WTO 2006a; Kirkman et al. 2002; Lonely Planet. 2004; World Bank. 2006)

Table 22: Development statistics

	2000		2005	
	Malaysia	**Ecuador**	**Malaysia**	**Ecuador**
GDP (US$)	90.3 billion	15.9 billion	130.3 billion	36.5 billion
GDP growth (annual %)	8.9%	2.8%	5.2%	4.7%
GNI per capita, Atlas method (US$)	3,430	1,340	4,970	2,620
Population growth (annual %)	2.2%	1.4%	1.8%	1.4%
Fixed line and mobile phone subscribers (per 1,000 people)	424.2	138.7	943.3	600.8

Source: World Bank (2006)

Table 23 through to Table 25 illustrate some ICT statistics for the two countries. Here there are some major differences that are of interest to this study. Most notably, Malaysia has far more PC's, Internet users, and hosts per capita. Furthermore, despite Ecuador being the less affluent of the two, Internet users pay more on average for a monthly Internet connection. Table 24 and Table 25 illustrate the break down of the e-readiness scores for the two countries according to the 2002 Global Information Technology Report. These are divided into five principal areas, Enabling Factors, Network Access, Network Policy, Networked Society, and Networked Economy. It is useful to note that there is some parallelism between the countries in that the scores for each country remain relatively consistent for each decisive factor.

Table 23: ICT statistics

	Hosts total	**Hosts per 10'000 inhabitants**	**Internet users (000's)**	**Internet users per 1000 inhabitants**	**Total PCs (k)**	**PCs per 100 inhabitants**	**Average monthly cost per 20hrs Internet access**
Malaysia	135'082	52.81	9'879	423.69	4'900	19.16	US$ 16.00
Ecuador	8'000	6.67	624.6	73.18	724	5.49	US$ 20.6

Compiled from: (ITU 2005; Coppock, Maclay & Calero 2002; Ratnathicam 2002)

Table 24: Enabling factors, network access, network policy ranking

	Enabling factors				Network access		Network Policy	
	Network access	Network policy	Networked society	Networked economy	Information infrastructure	Hardware /software support	ICT Policy	Business and economic environment
Malaysia	42	33	41	35	35	49	31	36

Ecuador	62	70	68	66	62	61	66	72

Source: Adapted from Kirkman et al. 2002, Table 3, p.16 & Table 4, p.17 & Table 5, p.17

Table 25: Network society and networked economy ranking

	Networked society			Networked economy		
	Networked Learning	ICT opportunities	Social Capital	E-commerce	E-government	General infrastructure
Malaysia	44	39	52	42	45	28
Ecuador	65	67	57	72	65	66

Source: Adapted from Kirkman et al. 2002, Table 6, p.18 & Table 7, p.19

The theme from the above tables is that Malaysia is in a relatively better position than Ecuador, both economically and in terms of ICT infrastructure – or e-readiness. This allows for interesting comparisons to be made tête-à-tête between STEs in these two countries.

In light of the foregoing discussion it is reasonable to expect that there could be a considerable amount of variation concerning STEs and e-commerce in these two countries. The next section discusses these countries in greater detail. Although the purpose of the discourse is not to critically contrast these two countries against each other, one key theme that can be observed in light of the discussion is that the Malaysian government is aggressively promoting ICT development and capacity building whereas the Ecuadorian government appears to be sluggish and doing little in terms of ICT development. Along these lines, an Ecuadorian IT expert put forward '*there are no policies and strategies for IT within the government'* (Coppock, Maclay & Calero 2002 p.194). Some experts suggest that this can be linked with the political and economic instability experienced by this country over the last decade (Coppock, Maclay & Calero 2002). This will be discussed in more detail in the next section.

6.2.2 Malaysia background and ICT development

Traditionally Malaysia has been known as the largest exporter of commodities such as rubber and tin (Ramasamy, Chakrabarty & Cheah 2004). However, through government involvement Malaysia has shifted to a manufacturing based economy over the last twenty years. As early as 1991, policymakers commenced the **Vision 2020** in an attempt to achieve 'developed nation' status by 2020 (Ramasamy, Chakrabarty & Cheah 2004). A key part of the strategy to transform the nation into a 'knowledge-based economy' is the Multimedia Super Corridor (MSC) – an ultra high-technology business city built near Kula Lumpur. The aim of the MSC was to attract foreign ICT and service companies and stimulate internal growth in the ICT and media sector. The MSC initiative included incentives for foreign companies such as a ten-year tax holiday, expedited work-visas, skilled immigrant workers, and duty free import of ICT equipment (Ratnathicam 2002).

In addition to the MSC, policymakers have attempted to ensure that all the other necessary 'ingredients' are in place to contribute to the success of the development of a 'knowledge-based-economy'. This includes the establishment of proper infrastructure, business incubators, universities, supporting services, and recognising that government needs to play a role in fostering a conducive ICT environment (Ramasamy, Chakrabarty & Cheah 2004). As a result of this government enthusiasm and commitment, Malaysia's ICT plan has been described as one of the most aggressive in the world (Ratnathicam 2002). At the same time, it faces one of the greatest challenges *'using ICTs to address the economic development hurdles of a highly rural developing country'* (Ratnathicam 2002 p.242).

Malaysia was among the first countries in the region to privatise its government held telephone monopoly (Jabatan Tekom Malaysia) (Jussawalla 1999) and as a result the Malaysian telecommunications sector has become one of the most competitive in the world (Mesher & Zajac 1997). This resulted in affordable access for many citizens. Teledensity is high with 16.7 main telephone lines per 100 people (ITU 2005), which is one of the highest teledensity levels within South East Asia. Like most developing nations, Internet users are concentrated heavily in metropolitan areas and sparsely in semi-rural and rural areas. According to ITU (2005)[7] Internet penetration is as high as 42 percent (see Table 23). However, other sources place the figure as low as 12 percent (Alhabshi 2005 cited in Rathore & Alhabshi 2005). According to Malaysian Communications and Multimedia Commission (2007) the penetration rate (per 100 inhabitants) for dial-up is 14, 3.7 for broadband, and 77 for cellular.

Most states in Peninsula Malaysia have Internet penetration of less than ten percent. In fact, after Kuala Lumpur, Puala Pinang has the highest Internet penetration – 17 percent (half that of Kuala Lumpur). Within the states of East Malaysia, Sabah and Sarawak (where this study was performed) Internet penetration is less than ten percent, as is the case within the Peninsula states of Perak, Perils, Terranganu, and Kedah (Alhabshi 2005 cited in Rathore & Alhabshi 2005). In fact, within these states basic ICT infrastructure is lacking in many areas (Rathore & Alhabshi 2005). The Malaysian government has responded with various programs (such as the National Internet Literacy Campaign), which establishes local telecentres in rural as well as urban areas, which works by charging residents a small fee for computer and Internet training (Ratnathicam 2002). Further to this, the government has expanded e-government to citizens and for internal processes (Kirkman et al. 2002).

Malaysia's e-readiness ranking is rather high (in terms of developing countries) - higher than most other South East Asian countries. The Economist Intelligence Unit (2005) ranked Malaysia as 35th in the world,

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[7] The ITU calculates Internet users based on nationally reported data. In some cases, surveys have been carried out that give a more precise figure for the number of Internet users. However surveys differ across countries in the age and frequency of use they cover. The ITU reported figure for Internet users may only refer to users above a certain age and is divided by the total population to obtain users per 100 inhabitants. Countries that do not have surveys generally base their estimates on derivations from reported ISP subscriber accounts.

and 8th overall in the Asia behind the likes of Japan, Hong Kong, and Singapore, but ahead of other emerging countries such as India and China. As a result of this aggressive ICT strategy Malaysia is one of the economies in East Asia that ranks highly in e-leadership (along the likes of South Korea and Taiwan) (Kuwayama 2001).

Small enterprises in Malaysia

SMEs in Malaysia comprise more than 90 percent of the total businesses and are seen as playing an important role as the country moves towards realising the objective of achieving developed country status by 2020 (SMIDEC 2006). Many government initiatives are in place to facilitate this (Gammack et al. 2004). Hashim (2006) identified e-commerce initiatives for Malaysian SMEs and investigated their use. Amongst various projects Hashim (2006) identified an e-commerce grant for SMEs, encouraging online trading and a grant for SMEs to use ICTs to promote integration into the global marketplace. Hashim (2006) argued that of all the SME initiatives an e-commerce grant introduced by Small Medium-Sized Industry Development Corporation (SMIDEC) in July 2000 was the most popular. The objectives of the e-commerce grant were (SMIDEC 2001):

- To encourage SMEs to have a website to advertise their products and services, engage e-commerce, and perform online transactions.
- To assist SMEs to overcome skill constraints when engaging in e-commerce.

Under the e-commerce grant scheme, SMEs can obtain grants of up to 70 percent of project costs to a maximum of RM10, 000 (approx US$ 2,800). This grant is for enterprises to design a welcome page for an electronic product catalogue and also covers the costs of a community portal. Hashim (2006) reported that more than 3,500 SMEs applied for the e-commerce grant, but just 1,818 applications were approved. In support of Hashim's (2006) findings, SMIDEC's website (www.smidec.gov.my) lists many initiatives targeted towards small business. Some of these include, 'soft loans' as part of an initiative for small businesses to purchase computer hardware and related equipment and for training purposes to improve competitiveness, efficiency, and productivity. This suggests that government support is likely to play a factor in fostering e-commerce adoption in Malaysia.

Tourism in Malaysia

The tourism industry has long been a staple of the Malaysian national economy. Within recent years tourism arrivals grew from 10.22 million in 2000, to 17.55 million in 2006 (www.tourism.gov.my 2006), resulting in increased tourism employment (Gammack et al. 2004). Table 26 shows the steady increase of tourism arrivals enjoyed over the last ten years. Malaysia receives a relatively high market share of tourist arrivals in South East Asia - 10.3 per cent (WTO 2006a). In fact in 2005, globally Malaysia was ranked 13th in terms of tourist arrivals (WTO 2006b), the highest ranked South East Asian nation.

Table 26: Malaysia tourism arrivals (million)

	1990	1995	2000	2002	2003	2004	2006
Number of arrivals	7.44	7.46	10.22	13.29	10.57	15.70	17.55

Compiled from: (WTO 2006a; www.tourism.gov.my 2006)

6.2.3 Ecuador background and ICT development

The Republic of Ecuador is located in the Andean region of South America on the Pacific Ocean. A small yet resource rich country with a heterogeneous population, Ecuador is the world's largest producer of bananas and a large producer of oil. Oil makes up around one third of government revenue, comprises 20 percent of the economy, and 45 percent of exports (Economist 2005b; CountryWatch 2006). Nevertheless, despite its resource affluence Ecuador remains one of the poorest countries in South America. In fact, its low GDP per capita and the wide income gap, puts most of the population in the condition of extreme poverty (Talamanca, Furlani & Alves 2006).

Before discussing Ecuador's ICT environment it is useful to begin by presenting a brief overview of the country in recent years. Mired by a debt crisis in the 1980's, Ecuador began its economic reform and restructuring programs in the late 1980's and accelerated them in the 1990's. In accordance with the neo-liberal prescription and the Washington Consensus[8], Ecuador introduced public sector reforms, privatisation, external sector reforms, and financial sector reforms. These resulted in mixed results. Nazmi (2001 p.727) summed up the 1990's by suggesting that while other Latin American countries were implementing meaningful economic reforms '*Ecuador found itself in political chaos, social rift, regional infightings, and economic uncertainty'*. It is no surprise then that the new millennium began poorly for Ecuador. Political instability and coups d'État, resulted in four presidents in five years - at one point in 2005 there were two candidates claiming to be president (Economist 2005a). While unemployment, low growth, and high inflation have affected macroeconomic stability (Talamanca, Furlani & Alves 2006; Nazmi 2001; Economist 2006). 'Dollarisation' (a change from the Sucre to the US dollar) was a strategy to tackle high inflation rates and to recover trust among investors and economic agents (Talamanca, Furlani & Alves 2006). Some observers suggest that very recently there has been some economic and political stabilisation (Talamanca, Furlani & Alves 2006), although concerns remain about foreign investment and capital flight (Economist 2007). This has been a concern for Ecuador for sometime. It has a reputation as projecting an unfriendly investment environment, banks are often unreliable and for the same reason there is a low availability of venture capital (Talamanca, Furlani & Alves 2006).

There exists little reported information concerning ICT in Ecuador, as is the case with other Latin American countries (Guasch & Ugas 2007). ICT development has not been a priority of policy makers. This is reflected in the country's e-readiness ranking, which continually decreased from 2000 to 2005 (EIU. 2004; EIU. 2007; Kirkman et al. 2002; Dutta & Lopez-Claros 2005). This comes as no surprise given recent political and economic turbulence. As a result, the country suffers from an underdeveloped, obsolete, and expensive to use ICT infrastructure. Furthermore, there is a limited supply of ICT related human capital, such as engineers, programmers, and website designers (Talamanca, Furlani & Alves 2006; Coppock, Maclay & Calero 2002). In fact, the average level of education is quite low and there is a

8 The Washington Consensus refers to a set economic policy reforms for crisis stricken countries by Washington based institutions such as the International Monetary Fund (IMF), World Bank, World Trade Organisation (WTO), and the US Treasury Department.

shortage of training and development in the work force. Even though the government has taken steps to improve the quality of education and increase literacy, it has focused little on the potential role of ICTs. Consequently public and rural educational institutions have little access to advanced technologies (Coppock, Maclay & Calero 2002). Addressing capacity related issues represents a great barrier to the introduction of new practices and technologies (Talamanca, Furlani & Alves 2006).

Teledensity remains low in Ecuador. Over 60 percent of Ecuador's telephones lines are located in the capital Quito and the two other largest cities (Guayaquil and Cuenca), even though these cities only account for one third of the population (Villao & Flores 2001 cited in Coppock et al. 2005). As at 2005 there were 7.3 Internet users per 100 people (ITU 2005). It is estimated that 30,000 rural communities lack access to basic ICT services. However, resources are being allocated for the installation of community telecentres in 5,000 of them (Galperin 2005). The focus toward community access is motivated by factors such as the high price of telecommunications and low PC penetration (Coppock, Maclay & Calero 2002), although the use of community telecentres have been met with some positive as well as some negative socio-cultural results (Romero 2000).

In Ecuador, commercial enterprise drove the Internet development and expansion rather than the government or educational institutions (Montealegre 1998). After a decade of failing to privatise state owned telecommunications companies (despite offering many concessions to bidders), the government announced that instead of selling telecommunications outright it would seek partners to increase their efficiency to make them more attractive to investors (Coppock, Maclay & Calero 2002; Nazmi 2001). Ecuador's ICT sector can now be described as '*partial competition*' to '*competitive*' (World Bank. n.d). The foregoing discussion suggests that e-business could fail because it is not sufficiently supported by the infrastructures and business and cultural environment (Talamanca, Furlani & Alves 2006).

In most of the e-readiness rankings, Ecuador dwells amongst the lowest ten ranked countries (Kirkman et al. 2002; EIU. 2005; EIU. 2004; Dutta & Lopez-Claros 2005). Some reasons for the low ranking were identified in the 2002 Global Information Technology Report (Kirkman et al. 2002), and have been touched on here. These are an unstable political climate, a move from the Sucre to the US Dollar, popular protest, and a government that does not focus on ICT development.

Small business in Ecuador

There is little literature available on small enterprises in Ecuador concerning their role in the economy and their ICT use. Angelelli et al. (2003), in a report for the Inter-American Development Bank suggested that this is the case generally in Latin America. The Wold Bank (2000) reported that in Ecuador, up to 99 percent of all private companies have no more than 50 employees. While other observers suggest that small enterprises are the most important source of job-creation (Talamanca, Furlani & Alves 2006). Given that Ecuador is a market economy characterised by small-scale service and farming enterprises, and where there are high levels of self-employment (CountryWatch 2006; Acs 2006), SMEs are likely to represent an important part of the economy and numerically the dominant form of enterprise.

In addition to the characteristics of small business identified in the literature review, there is a prevailing organisational culture in Ecuador that does not see ICT implementation as a driver of change and small

businesses suffer from low technological and managerial capability across all sectors of the economy (Talamanca, Furlani & Alves 2006). Furthermore, the government lacks resources to support SMEs in terms of capacity building and ICT diffusion (Talamanca, Furlani & Alves 2006).

Busch (1989) outlined several problems faced by small business owners in Ecuador:

- Ecuador lacks a large number of educated and trained personnel.
- Many small business owners have apparently reached the conclusion that non-family members cannot be trusted. Along these lines, a concern is that managerial and non-managerial employees cannot be relied upon to follow directions.
- For a small nation with many citizens functioning outside the market economy, economies of scale are limited.
- Because Ecuador does not market goods internationally to any significant degree, the supply of foreign exchange with which to purchase goods from other countries is limited.
- Although there is an association of small businesses (in Quito – the capital), the concept of trade associations does not appear to be well understood or fully accepted.
- Business owners and managers tend to be rather secretive and unwilling to share information.

Tourism in Ecuador

Despite being blessed with the Galapagos Islands, the Andes, and the Amazon rainforest Ecuador's tourism arrival numbers are quite modest. This is reflected in Table 27, which illustrates that while tourism arrivals have increased from 627,000 in 2000 (WTO 2006a), to 841,000 in 2006 (www.turismo.gov.ec 2007), numbers remain low. Tourism arrivals are lower than neighbours Peru and Columbia. In fact, Ecuador's market share of South American arrivals in 2004 was less than one percent (WTO 2006a). There has been significant growth in the hotel sector (almost eight percent) over the last decade in terms of job and wealth creation (Talamanca, Furlani & Alves 2006). However, while STEs are numerically the dominant form of tourism enterprise the market is dominated by multinationals (Talamanca, Furlani & Alves 2006).

Table 27: Ecuador tourism arrivals

	1990	1995	2000	2002	2003	2004	2006
Number of arrivals	362,000	440,000	627,000	683,000	761,000	793,000	841,000

Complied from: (WTO 2006a; www.turismo.gov.ec 2007)

6.2.4 Summary of the background discussion on Malaysia and Ecuador

This section discussed the rationale behind the selection of Ecuador and Malaysia. The selection of the two countries was guided by a number of factors. While it was observed that Malaysia has become a pacesetter in terms of ICT development, Ecuador's approach seems sluggish. Overall however, the aim was to select

two varied countries and based on the discussion presented in this section the researcher believes that this has been achieved.

6.3 The selection of STEs

This phase of the study involved interviews with owner/managers of STEs. To obtain a comprehensive coverage rural, semi-rural, and metropolitan enterprises were targeted to participate. Because personal introductions are often an integral part of culture in Asia (March 1997) and developing countries generally, it was expected that the level of interest would be low. For this reason, a large number of STEs was required to begin. Following the direction of Purcell et al. (2004) the underlying principle used to select participants was to select enterprises that used either the Internet or those that had developed a website. Enterprises had to fulfil two other conditions to be eligible for the study:

- Have less than twenty employees (the number of employees was considered as the principal criteria to select small enterprises, because of the difficulty in obtaining information, such as sales turnover or capital).
- Be either an accommodation provider, and/or a tour operator (these two categories of tourism enterprise were selected as they operate by attracting customers based on information provided).

Enterprises were selected using online searches. In Malaysia, useful starting points were the official tourism websites of Malaysia and Sabah (www.tourism.gov.my and www.sabahtourism.com). The official tourism website for Sarawak was under construction at the time of the investigation (this meant that other tourism portals were used to build the number of STEs in Sarawak). Commercial websites were also used, such as the online tourism portal for Asia www.wildasia.com. Similar online searches to select suitable participants have been used in other STE and Internet studies (Sellitto, Burgess & Davidson 2005). However, unlike in Malaysia, Ecuador did not have a useful official tourism website that could be used to select STEs (in fact, a number of the Ecuadorian participants suggested that the official website www.vivecuador.com contributes very little to promoting the country or STEs). This complication was overcome by using other portal websites such as www.ecuadorexplorer.com. It bears reminding that the lack of equivalent sources to select participants is one of the obstacles involved with cross-national/cultural research in the developing world (Bulmer 1983b; Peil 1983; Giamartino 1991; Lonner & Berry 1986a).

Traditional media such as travel guidebooks (such as LonelyPlanet, RoughGuides, LetsGo and Thomas Cook) were also used. The reason for using multiple sources was that it was found that not all STEs that were listed on the official tourism websites (or commercial websites) were in the travel directories and vice versa. Thus a 'master list' of potential STEs was assembled for Malaysia and Ecuador. Further details of this process occur later in this chapter.

6.3.1 A note on the selection of STEs

The interviews in Malaysia began on the 15th of December 2005 and ended on the 20th of January 2006. Later on April 19th 2006 the interviews commenced in Ecuador and concluded on the 25th of May 2006. STEs were selected using the method described in the last paragraphs and emailed an invitation to participate, as per Purcell et al. (2004).

The researcher is alert to the possibility of researching the perspective of 'Internet enthusiasts', and the bias this introduces. However, irrespective of the selection method applied, it is an almost impossible consequence to avoid the perspectives of this group emerging, especially when contacting participants via the Internet (Menou 1999). Another potential bias that was introduced was that only tourism operators that were confident in carrying out an interview in English could participate. Nevertheless, realistically the interviews could only be performed in English and it is not considered that this would seriously affect the interview outcomes.

The intention was to select STEs that covered a cross-selection of rural, semi-rural, and metropolitan STEs and a mixture of tour operators and accommodation providers. To achieve this, emails were not sent out as one large group email (meaning that all STEs were not emailed at the same time). Instead, emails were distributed in groups of around twenty. This allowed the researcher to manage the responses and determine if more rural or metropolitan STEs were required. At the same time, this was not difficult to achieve because both countries have a large number of rural, semi-rural, and metropolitan STEs. The next two sections discuss in detail the selection of the Malaysian and Ecuadorian STEs.

6.3.2 Selection of the Malaysian STEs

After gathering a large number of email addresses, enterprises in Malaysia were emailed an invitation to participate in the study. The invitations themselves yielded interesting results. From a total of 133 emails sent, 28 did not reach their destination. This large proportion of 'bounce backs' was a surprise to the researcher who had not encountered this in previous small business research. A small number of the mail failures were due to ISP mail servers being 'down'. This suggested some serious infrastructure problems even before the interviews had begun. Some businesses had multiple email addresses for this reason. However, the main reason for email 'bounce backs' was because of discontinued or invalid email addresses (as most were using third-party email addresses such as Hotmail and Yahoo a likely reason is that they have not accessed their account in the required period of time). This was verified using the online tool www.dnsreport.com (Domain Name Server Report), which is a Mail Test tool that can be used to identify if an email address/domain is valid by connecting to the server. The tool can also discover delivery problems with that domain. Below is a typical response from the Mail Test tool.

mx1.hotmail.com. - 65.54.244.8 [Could not connect: Got an unknown RCPT TO response: 550 ***Requested action not taken: mailbox unavailable***

(This typically means that the email account no longer exists)

Further extensive online searches in traditional media, tourism portals, and search engines to obtain a current valid email address for the enterprises yielded no other email address. This leads to the question, why promote an email address that will not be maintained? Further investigation is needed to understand why businesses appear to have stopped using email. This is outside the scope of this study. Table 28 below displays the number of emails sent out, along with the number of 'bounce backs', and positive responses.

Table 28: Malaysian response rate

Total invitations emailed	133	-
Invalid addresses	28	21%
Initial yes reply	22	17%
Actual interviews performed	14	11%
Percentage of interviews performed (excluding invalid email addresses)	-	13%
Percentage of interviews not performed*	8	6%

* Refers to potential interviews that were setup but not performed because of logistical and communication problems or where the business was not suitable for the study.

The response rate of 13 percent was higher than expected. Generally, the respondents expressed interest in participating in the study and welcomed the researcher to visit their enterprise. Some typical responses were:

'Glad to accommodate time to meet you as we are also keen to explore further in using internet as our marketing tool.'

A rural lodge owner even invited the researcher to join him on a short expedition:

'but 21st dec. i will be at a village called pa' mada, a day walk. i suggest you come to bario before 20th. so that we can go trekking and celebrate christmas with the people there. an onging reunion festival from 21st to 25th. 27th back to bario.'

Figure 24 illustrates geographically the location of the STEs and how many took place in each location. As observed, all interviews tool place in Sarawak and Sabah in East Malaysia on the island of Borneo.

Figure 24: Map of East Malaysia
Source: Adapted from CIA (2007b)

Five rural, three semi-rural, and six metropolitan STEs participated in the study. All five rural enterprises were family owned and run, which echoes a typical characteristic of small rural enterprises observed in the literature review. They were also all micro-sized businesses (less than five employees). Another four micro-sized businesses participated. These were based in city areas. The remainder of the participants had between 10 and 20 employees. These included back-office staff, counter staff, tour guides, cooks, cleaners, and so forth. Two different rural areas were represented in the study, outer Miri and Bario – both are located in the east of Sarawak. The enterprise near Miri is accessible by road (20km from Miri). On the other hand, Bario is one of the most remote communities in Sarawak (if not South East Asia) and the only practical way of reaching it is by a one-hour twin otter flight from Miri (Gnaniah et al. 2004). One capital city was represented, Kota Kinabalu, and three other smaller cities, Tawau (South of Sabah), Sibu (West Sarawak), and Sandakan (East Sabah). Table 29 displays the profile of each of the STEs. It displays the location, number of employees, and services offered for each STE.

Table 29: Profile of Malaysian STEs

Location	Number of employees/type of business	Services	Category	Pseudonym used to refer to STE*
Sibu	3 – 4	Tours and ticketing	Metropolitan	MM1

Bario	3 - 4 (family run)	Accommodation	Rural	MR2
Barrio	5 (family run)	Accommodation	Rural	MR3
Bario	2 (family run)	Accommodation	Rural	MR4
Bario	2 (family run)	Accommodation	Rural	MR5
Penampang (Kota Kinabalu)	16	Tours	Semi-rural	MS6
Putatan Point/ Tempurung (Kota Kinabalu)	17	Tours/Accommodation	Semi-rural	MS7
Kota Kinabalu	3	Tours	Metropolitan	MM8
Kinarut (Kota Kinabalu)/ Kampung Kalanggaan	18 (partly family run)	Accommodation	Semi-rural	MSS9
Kota Kinabalu	20	Accommodation/tours	Metropolitan	MM10
Miri	4 (family run and 2 employees)	Accommodation/tours	Rural	MR11
Kota Kinabalu	5 (partly family run)	Accommodation	Metropolitan	MM12
Tawau/Semporna	15	Tours	Metropolitan	MM14
Sandakan	2	Accommodation	Metropolitan	MM13

6.3.3 Selection of the Ecuadorian STEs

After obtaining a selection of email addresses, enterprises in Ecuador were emailed an invitation to participate in the study. In total, 126 emails were distributed and of those 16 'bounced back' (a smaller percentage that amongst the Malaysian STEs). The main reason for 'bounce backs' was that STEs had changed their email address. Again, extensive online searches in tourism portals and search engines (even in Spanish) to obtain a current valid email address yielded no successful result. Discounting invalid email addresses the response rate was 10 percent. This is similar to the response rate amongst the Malaysian STEs. Table 30 below displays the number of emails sent out, along with the number of 'bounce backs', and positive responses.

Table 30: Ecuadorian response rate

Total invitations emailed	126	-
Invalid addresses	16	13%
Initial 'yes' reply	19	15%
Actual interviews performed	12	10%
Percentage of interviews performed (excluding invalid email addresses)	-	11%
Percentage of interviews not	8	6%

performed*

`* Refers to potential interviews that were setup but not performed because of logistical and communication problems or where an enterprise was not suitable for the study.

In general, the responding enterprises expressed enthusiasm in participating in the study. Some responses also provided insight into their environments:

'*Now please be aware that our company might be ready for having full access to internet in any way but the legislation of our country in order to prevent fraud has many* ***stupid rules to say the less****. The* ***cost of the service here is 3 or 4 times more expensive than in your country*** *like if Ecuadorians have all the money in the world and worst, here we do not know yet DSL connections. Most of the population still use dial up modems and extremely slow connection. It will be an interesting research what you are doing.* ***It will be like a voyage in time****.'*

'We're a small small business, but doing okay in the Otavalo tourist market. I use the internet a lot (in fact, it's a large part of my work), but up here in Otavalo I'm still one of the pioneers'.

From a very remote STE in the Andes: *'We'd be happy to interview either by phone or in person. We have less than 20 employees by far, and the internet is the backbone of biz [business] for [us]'.*

Also many Ecuadorian STEs expressed interest in developing their Internet activities and also viewing the results of the study.

'We have some experience selling through internet, www.XXXXXXX.com. But we would like to improve our sales and internet skills'.

'*There is only one condition... that you give us a bit of feedback (call it advice, based on your research)*'.

'*It will be a pleasure for us to hold a conversation or interview in April/May, furthermore it will be very interesting to hear your feedback and experience so we can improve our web site. Do you mind taking a look at www.XXXXXXX.com and send us your opinion'.*

'*Hi Stan, that is fine, but as long as after the interview if you can give me some tips and suggestions!'*

Six different regions were represented in the Ecuadorian component of the study. Three rural, two semi-rural, and six metropolitan STEs participated in the study (Figure 25 illustrates that location and number of

interviews performed). Again family enterprises represented a large portion of the participating enterprises. The majority of enterprises (eight) were completely family run (or were operated by a husband-wife team with additional hired staff). A number of different rural areas were represented: Chugchilán, Cotopaxi, and the Quijos Valley, which are located in the Andes. Tumbabiro located in the north near afro-Ecuadorian villages was represented and Puerto Ayora a small town on the island of Santa Cruz located in the Galapagos. This was considered rural because it has a small population (on Santa Cruz the population is 8,000). Up until recent years the population hovered around the 3000 mark, however, due to an increase in tourism and illegal immigrants by some accounts the population has risen to as high as 10,000. Quito (the capital city) was the main city represented and a number of outer Quito areas were included - Sangolqui and Conocoto. What was interesting in the case of the Ecuador, was that three enterprises that had lodges in remote areas actually ran their operations from an office or home office in Quito (the researcher observed that this was often the case amongst small remote lodges generally in Ecuador – this was the case to a lesser extent in Malaysia). There is some difficulty in classifying these STEs as exclusively rural, semi-rural, or metropolitan. For example, two enterprises ran lodges in a remote area, but ran most of the operations from a home office in Quito. In one case the home office was simply a PC connected to the Internet. Similarly one enterprise ran its tour/lodge operations (the Internet side) out of a home office in a semi-rural area even though the lodge was actually located in a rural area. Customers rarely visited the home office of these businesses, and the owners spent a considerable amount of time at the actual business (the lodge). In another instance, a participant ran a tour business out of a shop front in Quito, even though the participant's main source of Internet access was from home in a semi-rural area. This is a particular conundrum in this study because it is interested in the Internet. However, such issues are typical when researching small businesses, because they are managed in a personalised way (Kuwayama 2001). To combat this issue, enterprises are classified as rural/metro or semi-rural/rural – the main business site is taken to be the first location. Table 31 displays the profile of each of the STEs. It displays the location, number of employees and services offered for each STE.

Figure 25: Map of Ecuador
Source: Adapted from CIA (2007a)

Table 31: Profile of Ecuadorian STEs

Location	Number of employees	Services	Category	Pseudonym used to refer to STE
Otavalo	6 (partly family run)	Accommodation	Semi-rural	ES1
Puerto Ayora	10	Tours	Rural	ER2
Quito	6 (partly family run)	Tours	Metropolitan	EM3
Quito	2	Tours	Metropolitan	EM4
Quito/Baeza	3 (family run)	Tours	Metropolitan/semi-rural	EM5
Quijos Valley/Quito	10 (partly family run)	Accommodation/tours	Rural/metropolitan	EM6

Quito/Cotopaxi	12	Tours	Metropolitan	EM7
Cotopaxi/Quito	20-22*	Accommodation/tours	Rural/metropolitan	EM8
Sangolqui	5 (family run)	Accommodation	Semi-rural	ES9
Quito	15 (family run)	Accommodation	Metropolitan	EM10
Chugchilán	14 (partly family run)	Accommodation/tours	Rural	ER11
Tumbabiro/Conocoto	3 (family run)	Tours	Semi-rural/rural	ES12

* At the time of the interview this enterprise had 20 employees - however during peak season the business may take on up to two more casual or full-time staff if necessary.

6.3.4 The conduct of the interviews

The interviews were carried out in two separate stints. After arriving in Malaysia and Ecuador participants were contacted via email or telephone or by 'dropping in' to confirm their availability. This in itself proved to be a challenge because most participants had since changed their schedules, which in turn required some rearranging of the researcher's already tight schedule. Also, in some instances, the dates that were initially set for the interview turned out just to be an introduction. Along these lines, Neuman (1997) suggests that in some cultures, an interviewer must spend sometime in informal discussion before achieving the rapport needed for a short interview. Due to a lack of time, this resulted in some interviews being conducted by telephone. Telephone interviews have been used as a back-up in other small business studies (Davidson, Burgess & Sellitto 2006).

In Malaysia, four respondents that agreed to be interviewed were not contactable upon arrival (by telephone and or email) and the researcher decided not to pursue them after multiple attempts. This was for a range of different reasons, such as, the owners were away (on holiday), they were extremely busy, they stopped corresponding with the researcher, and in one case it appeared as though the STE had ceased to exist. This occurred more in Malaysia. In the case of Ecuador the researcher took steps to minimise the impact of this issue (such as by setting tentative interview dates). Also, a further three businesses were found to be unsuitable for the study. One of these was a large dive centre (with around 100 employees) and the other two were international travel agents with branches in Malaysia. This served as a learning point for the researcher and the same error was not replicated in the Ecuadorian component of the study.

In Bario, Malaysia, one owner that agreed to be interviewed was not available when the researcher arrived (he had departed for Miri that morning – the nearest major city) and the interview could not be conducted over the telephone because there was only one communal telephone in the entire village. In one case in Ecuador, the researcher made his way to a remote destination (outer Baños) only to find that the manager had left for Quito (6 hours drive away) that morning! This was because the telephone connection at this STE was unavailable for a week and the researcher and interviewee had no chance to contact each other.

Nevertheless, these types of occurrences were expected and were factored into the initial size of STEs selected.

The participants were owners or managers. Before each interview began a fact sheet outlining the research aim was presented to the participant. Only after the participant had read the fact sheet and given their consent did the interview begin. Participants were informed that they did not need to answer any question that they felt uncomfortable with and that they could withdraw at any stage.

Although language is often cited as a challenge in cross-national/cultural research, it presented only a minor impediment in this study. There are two main reasons for this. First of all, in the initial invitation that was distributed businesses were informed that all interviews would be carried out in English. One Ecuadorian enterprise responded to the initial email invitation and explained that it was not possible to conduct an interview in English: *'Thanks for contac us but we can offer to give a interview because my english is not very good. But if we can help you in another way, please let me know. Sincerily,..'.* The second reason was that by focusing on the tourism industry the potential for language issues were limited. Participants dealt with English speaking visitors on a regular basis. Furthermore, a small percentage of participants were of European background (and spoke excellent English) or were educated in an English speaking country.

Following McCracken's (1990) guidelines, the interviews were semi-structured to ensure a consistent yet flexible approach. Using the semi-structured interview technique, a set of questions were developed and followed generally during interviews (the questions were based on the framework that was refined in Phase One and can be viewed in Appendix C). The interviewee was allowed to speak at length. Where necessary the researcher posited a question or probed to obtain more detailed responses. This method suited the environment and the dynamics of the interviews and the nature of the people involved in the study. Interviews were usually conducted over a cup of tea or coffee. In Bario, one interview was conducted partly in a bumpy jeep ride while dropping off supplies to nearby residents. Another interview began whilst walking to a coffee shop along a muddy path that the researcher struggled to keep his footing on whilst the participant walked along leisurely talking about his business. To limit the negative aspects of performing an interview in this setting the researcher limited the discussion to a background discussion of the business and the study and reserved the detailed questions for a more suitable setting (for instance, inside the business premises or coffee shop).

The interviews ranged in length from 30 minutes to up to 5 hours! The shorter interviews were with participants that had a modest Internet presence or where the interviewee had limited time. In some cases, the researcher saw the participants on multiple occasions after the formal interview and it was common to discuss aspects of the study on those occasions (for instance, the researcher spent one week in Bario). Participants in Bario all shared the local telecentre (the only Internet access) and it was not necessary to ask for in-depth details on the connectivity (type of connection, cost, reliability, and so forth) as the case of Bario and the telecentre is very well represented in literature (Bala, Harris & Songan 2004; Gnaniah et al. 2004).

The interviews that lasted more than a few hours typically involved discussions about other topics such as the environment and politics. Only one interview lasted five hours. This was with an owner of a 17th century hacienda in Ecuador. In this case the interview was interspersed with many areas of discussion outside the scope of the study. Following Hunter et al's (2005 p.6) suggestion:

> *The balancing of detail and time is important if researchers are to continue to gain the assistance of small business to attempt to obtain a better understanding of the issues*.

The researcher was careful not to occupy more of the participant's time than was necessary. However as observed, the researcher often spent time after the interview had concluded engaging in social discussions (as well as matters related to the study) over a coffee, tea or meal. This was a courteous gesture on the part of the participants. One popular area of discussion was that of environmental issues (such as logging and protecting wild life), the tourism industry, and many other political issues.

6.3.5 Ethical considerations

Any investigation with humans is bound to raise ethical issues and concerns, as they are inextricably entwined (Johanson 2002; Ezzy 2002). This can be said to be particularly true in cross-national/cultural field research. In this study, some ethical issues did arise. The case of the Bario proved to be an interesting case of ethics in field research. Before heading to Bario the researcher attended a conference in Kuching in Sarawak, Malaysia. There he met an academic who was the team leader of the project that brought the Internet to Bario (www.unimas.my/ebario/). He suggested that the researcher upon arrival in Bario seek out the village chief and inform him of the research that was to take place. Along these lines, Hershfield et al. (1983) suggest that researchers should seek out leaders (chiefs, village headman, elders, and so forth) as part of a plan to conduct research in a village in a developing country. The reason for this is that villages in many parts of the developing world frequently do not trust outsiders. In this case it did not involve asking for permission - it was simply a courteous gesture (even though small and remote Bario is a heavily researched area, mainly for biological and anthropological related studies). The academic (who was team leader of the e-Bario project) assured the researcher that the village chief would have no qualms about the nature of the research and would simply say 'welcome to Bario' and shake the researcher's hand.

Upon arrival at Bario airport a participant picked up the researcher and on the way to the lodge passed by the village head. The researcher was introduced to the village head and outlined the research. The village head simply said, '*OK, welcome to Bario*' and continued walking - an interesting insight into village politics!

Participants frequently asked the researcher for advice on promoting their business. For instance, the researcher was asked '*should I make a web site?*' and '*how is it possible to make a website and host it for free and what is the best way to do it?*' This is a tricky issue. The researcher dealt with this issue by pointing the participants towards online sources or giving them examples of the different ways this could be achieved. However, the researcher was sure to state that he was there in a research capacity only. The issue with giving advice is that it usually needs to be ongoing and even simple advice such as 'you should/

shouldn't develop a website' may affect the business adversely. Along these lines, Punch (1986) suggests as field workers, researchers need to exercise common sense and responsibility.

Other ethical issues such as confidentiality were overcome by providing the participants with a copy of the consent form that stated all answers would be confidential and reporting would be carried out using pseudonyms. Also, the participants were advised that they did not have to answer any questions and could withdraw at any time if they wished.

6.3.6 Summary of the selection of STEs

This section discussed the process behind the second data collection phase. There were two key parts, the selection of the two countries and the selection of STEs. This section described in detail how the two countries were selected and discussed the current ICT climate in both Malaysia and Ecuador. It also described the selection of the STEs. The following chapter will discuss in detail the data gathered during the field research performed in Malaysia and Ecuador.

Chapter Seven

Phase Two: Discussion of the Multiple Case Study/ Field Research

7 Phase Two: Discussion and analysis of the field research

This section will discuss the second phase of data collection. It begins by presenting a brief summary of each case study in Malaysia and Ecuador. The purpose of this discussion is to provide the reader with some insight into each STE and how each interview was conducted. Following this, a discussion of the data collected is provided. The discussion is in two parts. First, a discussion of the e-readiness step is given in light of the data collected. Then an analysis of the data collected in relation to the second part of the framework is presented. Finally, a summary of the second phase of data collection is presented.

Therefore the structure of the discussion of the data is as follows:

- Summary of each case study.
- Discussion of the e-readiness step (each contextual area is discussed separately country-by-country then summarised together).
- Discussion of the three virtual spaces (each space is discussed separately country-by-country then summarised together).
- Discussion on how each space can be exploited in light of the e-readiness step
- Presentation of the final framework.

7.1 Description of the field interviews in Malaysia and Ecuador

This section will discuss the actual conduct of the interviews. It draws on actual entries from the researcher's field journal. The purpose of this section is to inform the reader of the environment in which the interviews took place and how they were actually conducted, as well as the thoughts of the researcher. The interview data will be discussed using pseudonyms. A simple standard is adopted here. The first character of the pseudonym refers to the name of the country. The second character refers to the location. For instance, M: metropolitan; R: rural; S: semi rural. The third character simply represents the sequence number of the interviews. For example, a business named "Jungle Tours" located in metropolitan Ecuador would be referred to as EM1 (if it was the first interview). Whereas, a business by the name of "Mountain Hotel" located in a semi-rural area of Malaysia (if it was the 10th interview) would be referred to as MS10, and so forth. As the discussion is taken from the researcher's field journal the following discussion is written in the first person.

7.1.1 Malaysian interviews

The Malaysian interviews began on December 15, 2005 and were completed on January 20, 2006.

Interview with MM1

After I attended a conference in Kuching I moved to Sibu by bus (five hours). Sibu is an industrial city in the middle of Sarawak. Sibu is not typically a tourist destination and remains relatively 'off the beaten track'. There are a small number of larger size hotels and even less small hotels and tour operators. The interview with the owner of MM1 lasted about 50 minutes. The owner is well known in the tourism industry in Sibu and was keen to inform me about all aspects of his business and about the various awards and certificates he has received. The business runs in two parts. One part is the ticketing business, which is targeted primarily at the local market. The other part of his business focuses on offering local tours to mainly international visitors. The interview took place in the office of MM1 over a cup of tea. The owner was very enthusiastic about the interview and asked me if I had come all the way from Australia just to see him. To begin the owner was curious about the tape recorder I had with me (it was the only interview that I had displayed the digital recorder that I carried to record my thoughts after the interview) and expressed that he did not want to be recorded. MM1's website is the primary means of attracting customers. The owner commented that he believes that with the explosion of the Internet in tourism (not only in developed countries, but also within Malaysia) that the ticketing side of his business will cease to exist in the near future as more and more customers use the Internet to book flights. His strategy to combat this is to expand the 'tours' side of the business (the other part of the business). The owner stated that more and more of his customers book online and that this has become more commonplace with the introduction of Malaysian based airline AirAsia (which is predominately Internet based). The interviewee was a Malaysian national that spoke perfect English and has been involved in tourism for over 20 years.

A note on Bario

The day after the interview in Sibu I headed to Bario. This involved a flight to Miri and then another flight to Bario (one hour on a Twin Otter airplane; it is possible to reach Bario by foot and boat but it would take about three weeks). Bario is located in highlands of Sarawak. The population is approximately 1000, and is spread out across the highlands. Underdeveloped infrastructure depicts the settlement of Bario (with no running electricity and no road access). The people are of the Kelabit ethnic group, one of Sarawak's 26 or so identifiable ethnic minorities. Forested mountains surround the plain in which the residents cultivate wet rice (famously known as 'Bario rice'). People in the older part of the settlement live in longhouses, the traditional form of residence in Borneo (Harris 2005). A telecentre was established in 2000 with four PCs and two printers and its own electricity supply. Telekon Malaysia installed VSAT (Very Small Aperture Terminal) satellite equipment to connect the telecentre to the Internet (Harris et al. 2001). (Refer www.unimas.my/ebario for further details).

Interview with MR2

Upon arrival at the airport in Bario the owner of MR2 greeted me to take me to his lodge (where I would be staying for the first three nights). The owner was also at the airport to pick up supplies that needed to be distributed to the people of the village (there is a limit on the number of vehicles allowed in Bario – which means people with vehicles have the responsibility of distributing supplies). The task of dropping off the supplies took about one hour. During the drive, the owner drove past the village head (as indicated, I was advised by a colleague at a recent conference in Kuching that it may be best to seek approval from the

village head before beginning the research). During this time the owner of MR2 informed me of many different aspects of life in Bario. The interview actually commenced in part in the jeep during the task of dropping of the supplies. This was because the owner of MR2 was keen to start talking about his use of the Internet. The interview then continued in more depth that evening inside the lounge area of the lodge. The interview lasted one hour.

In addition to the actual interview, the owner and I subsequently discussed matter concerning my research during my stay. The owner was from a nearby village across the border in Indonesian Borneo. The behind the scenes operation (cooking, cleaning, and so forth) of the lodge was handled by teenage girls who were part of the owner's extended family. The interviewee spoke English quite well but had a very thick accent, spoke very softly, and not with great confidence. This meant that I often needed to repeat the response back to him for clarification. This only had a minor impact on the interview.

While staying at the lodge of MR2, I walked (10 minutes) to another lodge that was to participate in the study. The local ICT champion owned this lodge. However, the owner had left the same day on an earlier flight for Miri. Unfortunately, the interview could not be conducted over the telephone, as there is only one telephone for the whole of the village.

Interview with MR3

On the first day I arrived in Bario I introduced myself to the owners of MR3. This was approximately a 30-minute walk away from the lodge of MR2. The lodge is a traditional longhouse. When I arrived I was met by one of the owners, her son, and nephew. I stayed for about one hour and set up a time for an interview two days later.

Two days later on Sunday morning I visited MR3 once again and performed the interview. The husband and wife (owners), their son (manager), and their nephew (visiting from New Zealand) were all present. They are all local Kelabit. The interview took place over breakfast and lasted about 30-minutes. All participants spoke excellent English, and one was a teacher at the local school and also one of the pioneers of the whole ICT project in Bario. The other owner is a well-respected local conservationist. I felt that the interview could have continued for much longer and taken many different directions. However, the family needed to prepare for church (the people of the village are very religious). Nevertheless, I had arranged to spend four nights with MR3 (after my stay at MR2). During my stay there I spent many occasions discussing aspects of tourism development and ICTs with the manager.

Interview with MR4

A short walk from MR3 was another lodge that was to participate in the study. The owner of MR4 was Kelabit and the lodge was family run. I had seen the wife of the owner on a few occasions in the telecentre, browsing many tourism websites. I first made contact with the owner the day before when I was walking past his lodge and the owner was fixing an old utility truck (as there are limited vehicles in Bario it is important that they all operate). I introduced myself and we set a time for the next day. The interview was conducted in the sitting area of the lodge with the husband of the couple that ran the lodge. The wife brought us some tea. The interview lasted approximately 40 minutes. The interviewee spoke excellent English, understood rather well the context of the study, and was very forthcoming with responses.

Interview with MR5

The interview with the owner of MR5 was very troublesome to set up. We had not set a time via email, rather it was suggested that I simply walk to his lodge one day and introduce myself. However, the lodge was a 45-minute walk away (in the village of Pa Umor) from MR3 and was not easy to find. I tried on three occasions to locate the lodge. Each time I took a different path and ended up in the wrong location. The mornings were very warm in Bario and it rained all afternoon. This meant that not only did I need to be under cover by say about three in the afternoon but also that all the tracks were very muddy in the early part of the day (some paths were covered in shin deep mud). After these three failed attempts, I decided that I would try once more (as I was leaving the following morning). I began my walk and about 40 minutes in I actually bumped into the owner of MR5 who was on his way to the village centre. So as not to intrude on the owners' tasks I asked him if he minded if we perform the interview as we walked (back) into Bario. He was more than happy to do so. The interview continued in Bario where we completed it in a café over a cup of tea. In total the interview lasted approximately one hour. The owner spoke excellent English and was another well-respected member of the Kelabit community. He was quite forthcoming with responses and (as in the other interviews) I was impressed by the willingness and innovativeness of the people of this village to use the Internet despite the many challenges that they faced.

Interview with MS6

I left Bario on the 24th of December and then took a short break over Christmas and the New Year. Upon resuming, I made my way to Sabah, specifically Kota Kinabalu, where a number of enterprises had expressed interest in participating in the study. I had previously spent some time in Sabah, and was last in Kota Kinabalu only ten months prior. I was amazed how many new lodges had opened in the area in such a short period of time.

The first interview to be conducted in Sabah was in Penampang, roughly around 15-20 kilometres out of Kota Kinabalu in a somewhat semi-rural area, characterised by large open spaces and one small business centre near the bus stop. I arrived by taxi. The interview took place in the busy office of MS6, which was simply a converted apartment. Customers rarely come to the office. The owner commented that by being located outside of Kota Kinabalu the rent is cheaper and he can pass on that saving to the customer. The owner portrayed himself as a successful and flourishing businessman. The interviewee was Malaysian, his English was very good and he demonstrated a lot of awareness surrounding the topic of study. After the interview concluded the owner invited me to meet two of his colleagues at a small coffee house were we chatted for another hour. He then had his employee take me to the bus stop and show me which bus to take back into town (as there were no taxis around). The interview lasted approximately one and a half hours.

Interview with MS7

The next interview was with an enterprise that runs a tour business from a semi-rural location and operates a lodge in a rural area. Fortunately the owner offered to drive into Kota Kinabalu to meet me for a coffee because he was heading into the city. He also offered to drive me to the tour shop front to show me around. The owner was very enthusiastic about the study and was very open with his responses. He commented on a number of occasions that he did not believe that his online venture had been a success and that he lacked

knowledge in many areas concerning the Internet and computers generally. He told the story of how on one occasion he attempted to login to a travel website and post some positive comments about his business, but was not able to login because of his lack of Internet skills. Nevertheless, he did explain that his business was successful. The owner also had in-depth knowledge of the tourism industry, some of which he shared with me. The interviewee was of Malaysian origin. The interview lasted approximately one hour.

Interview with MM8

Back in Kota Kinabalu, the interview was conducted with MM8. This was a very small operation consisting of three employees. In fact, the head office was so small that I could not find it, even when I was standing right outside it. The office was literally a desk and two chairs. The interview was conducted with the two owner/managers and one staff member. The enterprise runs by offering incoming visitors tailor-made tours and standard tours. However, rather than have all the services (such as drivers, guides, and accommodation) set up, they operate 'on the fly', booking services and hiring people as they receive reservations. This was a very interesting and animated discussion and the business was somewhat unconventional. The enterprise was run entirely online. All three participants were Malaysian and were fluent in English. The interview lasted one hour and ten minutes.

Interview with MS9

This interview involved a long drive to Ranua, roughly 25 kilometres from Kota Kinabalu to visit the owner of a lodge situated on the coast facing the South China Sea. The interview was conducted in the outside sitting area of the lodge with the owner over a cup of coffee. The owner explained that he had been using the Internet for quite some time now and some of the obstacles he experienced due to being located in a semi-rural area. He also made a point of informing me of his concerns with the local environment, and discussed various projects he was involved in. The interviewee's English was perfect and he was of Malaysian origin. Like the other participants he was obliging with responses and discussed matters in detail. The interview lasted 45 minutes.

Interview with MM10

The last face-to-face interview in Malaysia took place with the owner of a lodge where I was staying in Kota Kinabalu. I have stayed there on a few occasions before, however I had never met the owner. I was pleasantly surprised that the owner agreed to participate in the study, as I was intrigued to know how the lodge had become so successful. The interview took place in the sitting area of the lodge and despite the owner having just returning from Singapore he was very enthusiastic. He even showed me many different tourism websites and online promotion strategies he used on his computer. The interviewee's English was perfect and he had studied before in Perth, Australia. Despite the fact that I was under the impression that the lodge was successful he pointed out to me that with the proliferation of lodges undercutting his prices he was not sure that he would survive more than six months. He explained that one of the problems was that the new lodges had resorted to hiring people to 'hang around' airports and bus stops for new arrivals (by doing this the new lodges were enticing tourists as soon as they arrived with better deals than their competitors). This was a tactic that he refused to adopt because it may impact on the reputation of the

lodge. The interview was quite in-depth. After the interview the owner took me out to dinner where he introduced me to another tourism operator. The interview lasted for one and a half hours.

Interview with MR11

The interview with MR11 took place over the telephone because during the time that I was in Miri (before I arrived in Bario) the owner was away. The lodge is located in a rural area and the telephone line was a little 'crackly'. The owner was English and married to a local woman. From the discussion I received the impression that the owner was very aware of how the Internet can be used, but more importantly of the overarching ICT environment. He pointed out examples of what was going on elsewhere in the world and suggested that connectivity was the major problem. According to him, he was one of the first small tourism operators in Malaysia online and witnessed the proliferation of operators that subsequently came online and how this changed the tourism industry. His target market is niche, as few tourists make it that far east into Sarawak - Miri is not known as a tourist destination. The owner was very responsive (but appeared busy) and talked much about the topic of the study and I believe that if the interview was held face-to-face it may have lasted a few hours (the interview lasted for about 30 minutes).

Interview with MM12

The interview with MM12 was performed over the telephone. Initially the interview was to be performed face-to-face in Kota Kinabalu. However, we could not agree on a date. Even so, I did visit them when I was in Kota Kinabalu to introduce myself and unintentionally ended up staying for over an hour (in which time I could have conducted the interview but it would have been inappropriate as it was Sunday night). MM12 is new lodge and part of the reason that we could not set a time was because the owners were busy with activities involved with setting up a new lodge. The owners were two Malaysians who invested in the lodge as a side business. The sister of one of the owners (who had studied in Australia and had a tourism background) managed the lodge. When I was there the owners showed me every aspect of their lodge and discussed tourism generally with me. Later I called to conduct the interview with the manager by telephone. Her English was perfect and she was very knowledgeable, not only in tourism but also with regards to the Internet. She expanded thoroughly on questions and although only operating for one month and only having received one customer she discussed their use of the Internet thoroughly. The interview lasted 50 minutes.

Interview with MM13

The interview with MM13 was held over the telephone because initially a time could not be set that suited both parties for a face-to-face interview. At the request of the owner the interview took place at 2am Sunday morning Melbourne time (10pm Saturday Malaysian time). The owner was a Malaysian woman and had thorough knowledge of the tourism industry, although she was not particularly Internet savvy. She explained that she is very customer oriented and chooses to reply to emails personally, even when she is away on holidays. She also commented that she may build a new lodge somewhere on the way to Sepilok and if she does go ahead with this she suggested that she would definitely need to boost her online presence. The owner's English was intermediate and she had a thick accent, although by then I had become

quite accustomed to the Malaysian accent and this did not present a problem. The interview lasted one hour.

Interview with MM14

The interview with MM14 was held over the telephone because it is located in the very South of Sabah (and it was the only enterprise in the South to show interest). MM14 is a very small scuba-dive operator, offering dives at the Sipadan Islands (one of the best dive locations in the world). There are two shop fronts, one in Semporna and the main office in Tawau (a small city near the Indonesian Borneo border). By chance I have actually visited MM14 on a previous trip (however I had never met any of the managers). The manager was Malaysian and spoke perfect English. She was also very knowledgeable about the area of investigation and discussed the many obstacles that she faced and how they were countered. Her husband is also an owner/manager. The interview lasted 40 minutes.

7.1.2 Observations and reflections

In total, 14 interviews were conducted with Malaysian STEs. One more interview was conducted, however this enterprise misunderstood the initial invitation (they actually employed nearly 100 employees). I was concerned that a number of enterprises that expressed interest were unable to be interviewed (six in total for a variety of reasons). Nevertheless, it is felt that enough data had been gathered to make comments applicable not only to the group of STEs that participated, but that are also suggestive of the of the wider population of STEs in Malaysia.

One key characteristic observed that was common amongst participants was that they were all quite aware of what was happening in tourism and in tune with their customer needs - which lead to the adoption of the Internet. Also, despite the barriers that they faced many recognised that in the long run the Internet offers benefits. Only two of the participants were not Malaysian (one was English and one was from just over the border in Indonesia).

I was prepared for some type of courtesy bias to occur in this study especially since, generally speaking, Asians can be too polite to tell a foreigner anything she/he may not want to hear (Wuelker 1983). However, I do not believe this occurred during the field research. One possible reason for this is that I attempted to make the interview quite informal and stayed in contact with the participants as much as possible before the interview. Also, I introduced myself usually a day before the interview where possible and allowed the participant to select the location. I believe that this is particularly important in research conducted with family run enterprises where they are usually juggling more than one task at one time. On a few occasions I was able to become familiar with the enterprises by staying at their lodges for a few days, experiencing first hand, power failures, infrastructure constraints, tourist needs, and the daily operation of the enterprise.

I consider myself particularly very fortunate to have been able to perform research in Bario. Not only was I able to interview four lodges in a very remote area, but also I was able to see the impact of a project such as e-Bario. In total, I stayed in Bario for one week and was able to learn much about the village and its people and participated in some cultural activities. On one occasion the owner of MR2 asked myself (and two of

his guests) to take a walk to a near by village (Pa'Lungan – 4 hours walk one way through the mountains) to pick up some vegetables, as the local supply was very limited. On arriving at Pa'Lungan we were invited into a lodge for a cup of tea where the owner asked about my work. She provided insight into her situation regarding her use (or rather non-use) of the Internet (this was not an interview, simply a discussion on the topic of the study). She commented that it is too far for her to walk to use the telecentre in Bario. Nevertheless, she explained that she does have an email address that is checked by someone else in Bario. If there is correspondence from customers someone will get the message to her by means of passing on a message to someone who is walking to her village (an interesting insight to inter village communication).

7.1.3 Ecuadorian interviews

Interviews with Ecuadorian enterprises began April 19 2006, and were completed by May 25.

Interview with ES1

The first interview was conducted over the telephone as the participant indicated that she would not be available during the time I would be in Ecuador. The interviewee was a Dutch woman and one of the owners of ES1. The lodge is located in Otavalo, a semi-rural area known for its handicrafts. The interviewee told the story of how her husband (also Dutch) was working in Ecuador and then in Guatemala, before returning to Ecuador and purchasing the hotel. I asked her if there are many barriers to foreigners starting a business and she replied 'no', although she did say that you must have 'patience' to deal with the local bureaucracy. The interviewee was extremely comfortable with all the questions and spoke excellent English and Spanish. She was also obviously Internet savvy and mentioned that when she took over the business, the use of the Internet was '*virtually non existent*' and that was one of the things that she wanted to change. She expanded a lot on all of the questions and made some interesting points regarding ICTs, tourism, and the improvement of the political situation. The interview lasted 35 minutes.

Interview with ER2

The other interview to be conducted over the telephone was with ER2, which is located on the island of Puerto Ayora in the Galapagos. Although I would have loved to visit the Galapagos the cost involved for one interview was not justified. The flights are regulated and so are the numbers of tourists allowed at one time – meaning that I could not plan in advance. It costs approximately US$ 500 to fly return from the mainland and another US$ 100 or so for the park entrance fee.

Initially I had trouble connecting via telephone because the interviewee had disconnected the telephone to use the Internet. The interviewee commented that they are limited with what they can have connected to the telecommunications infrastructure within the business, as connectivity is a real issue (discussed in detail in the analysis of data collection). The interviewee was a Canadian woman who had been living in Ecuador for three years now. She was married to an Ecuadorian. Even though she is part of the management team, she admitted that she had very little prior Internet knowledge. At the same time, however, she was able to increase the number of Internet bookings in her short time with the business. In the space of less than one year she has increased Internet sales by over 20 percent. On a few occasions she stopped to ask some of her

employees for more specific information (such as how much do they pay per month for the Internet). The interviewee speaks fluent Spanish as well as English. She was quite enthusiastic about the interview, and although her knowledge of the Internet and small enterprises was limited (she remarked she was unsure of a couple of the questions) she expanded on many of the questions and discussed in detail many other aspects of life in the Galapagos. The interview lasted 40 minutes.

Interview with EM3

The first face-to-face interview took place in Quito with the owner of EM3. EM3 is located in Mariscal, a popular tourist spot littered with bars, restaurants, cafés, tour operators, and small and large hotels. Initially the interview had to be rescheduled as I battled with jet lag (it had only been one day since my 38 hour flight and it was difficult to adjust to the 15 hour time difference and altitude sickness - Quito sits at an altitude of 3000m). The interview took place in the office of EM3. The owner is an Ecuadorian male who ran a successful tour business (I assumed it was successful because he mentioned on a number of occasions how much some customers paid for tours). One customer paid US$ 7000 for a short 'flower' tour, and the owner mentioned how he helped out with a Japanese documentary of Ecuador, and with the money from this work he purchased a house. He was very knowledgeable and very forthcoming with answers. He showed me many images, websites, and other tourism related material on his PC and discussed at length many aspects of tourism and the development of Ecuador. He also expressed some concerns about the government. For instance, he told the story of how he owned some small Cabañas (small lodges) in a rural area. However, an oil company begun to drill for oil nearby, and he was forced to shut down and lost out financially. He blamed the government who he explained did not provide any support. The interview lasted around two hours.

Interview with EM4

The next interview also took place in the heart of Mariscal. The interview took place in the office of EM4 with the owner. The interviewee was an Ecuadorian ex-diplomat and educated in the USA. He was very knowledgeable of tourism and the Internet as well as political and educational matters. His English was perfect and he was very forthcoming with responses. However, the interview was a little rushed because he had another engagement. He was very interested in environmental conservation and this was one reason for adopting e-commerce - because it can reduce paper. The interviewee was very concerned with the large number of tour operators that were opening and suggested that some of these were illegal and operated out of a garage. He is involved in a delegation to Finland to increase trade and tourism between the two countries. The interview lasted 30 minutes.

Interview with EM5

Again in Mariscal I met with the owner of a small bicycle tour operator. The interview was conducted in the small tour shop front. The interview took place with the owner, while his wife (an Ecuadorian) was sitting at the counter. The owner was a Dutch national that was working as a marine in the Caribbean and then came to Ecuador where he met his current wife. He has not returned to Holland since. He commented that initially he was working in a tour business nearby for over six years. He then decided to begin his own tour operating business. The owner's wife added input in Spanish to the conversation, which he then

translated. He explained that as a foreigner it was not that difficult to set up the business. The interviewee spoke excellent English and was quite animated with his responses. The interview lasted 40 minutes.

Interview with EM6

The final interview to take place in Mariscal was with the owner of a bird watching Cabañas (lodge) in the lower Andes. The interview took place in the office/home of the owner. She had completed a degree in hotel management in the USA. She commented that they needed a head office in Quito because it is impossible to set up communications at the Cabañas. The business has been operating for the last 20 years and the interviewee has been in charge since completing her degree. The Cabañas used to be run on a much smaller scale attracting a small amount of visitors. Then about ten years ago the owner started to promote the business more and developed the Cabañas. She commented that a large portion of the customer base was birdwatchers. This was unintentional, but eventuated because tourists were drawn by the multitude of different bird species. They are located about two hours (due East) drive out of Quito. It is situated at about 2,000 meters high and is also surrounded by jungle. The owner explained that she continues to buy land to prevent it from being destroyed and that this is part of their conservation project in which a fund (contributed to by the business and donors) is used to buy land. The land is then converted into walking trails and bird watching hot spots. The owner elucidated that the business is not making a large amount of money and commented that a small business like that, contrary to perceptions, cannot be expected make a large profit. The interview lasted one hour.

Interview with EM7

Moving on to another small tour operator in Mariscal, I interviewed the manager of a tour business. When I first arrived in the office the interviewee was not there but after one of the employees called him he rushed from his home office and the interview began. The interviewee was very energetic and forthcoming with responses. He gave in-depth responses and suggested that I contact him again if I needed to know more. For the answers to some of the questions that he did not know he asked a staff member. The interviewee was German (recently married to an Ecuadorian) and spoke excellent English.

He explained that the business aimed to be environmentally friendly. However, the business balances that with the profit side of things. He gave the example of people flying to the Galapagos, which is not good for the environment, but he justified it by explaining that the park fee that the environmental body receives from each visitor contributes to making it a sustainable attraction. He also said that most tour operators claim to be eco-friendly, but in reality they are not. The interview lasted 45 minutes.

Interview with EM8

The interview with EM8 had to be rescheduled twice because on the first occasion I needed more time to adjust to the altitude and jet lag and on the second occasion a taxi driver drove me to the incorrect location (the next time I walked). EM8 is a business that consists of three different Haciendas (country ranch). However the business operates out of a home office in Quito about an hour walk from Mariscal. The manager was an Ecuadorian female. She had actually prepared a PowerPoint presentation for me. We went through the presentation, which discussed the history of the business, the services offered, prices, and so forth. She also asked me for my feedback on a new website that they are building. The interviewee went

into a lot of detail regarding this aspect of the business and was very forthcoming with answers. She seemed very interested, although she did state that she was not an IT person. She studied in an American school in Quito (her English was excellent). She had been involved in the business for six years. The business actually began with the help of a local university that had set-up a community development program and ever since then the owner has developed the business. The three Haciendas are in the same area but offer slightly different services. They integrate the local community heavily into their operations (through employment and development programs), and also receive student internships. She informed me on more than one occasion that she would like to build on her Internet sales. The interviewee explained that they been quite fortunate because they had some media exposure from CNN and the MiamiHerald (USA based newspaper); this is largely because they were the first company in Ecuador to introduce the 'canopy rides' (similar to a flying fox above the rainforest that is hundreds of meters long) and which are very popular. She did say however that they did not experience a large increase in the number of tourists since this advertising campaign. The interview lasted approximately two hours.

Interview with ES9

The next interview was with an enterprise located about one hour and a quarter drive out of Quito. The owner, an Ecuadorian male, organised a taxi to pick me up. The business is a 17th century hacienda and was extremely large, although there is only room for about 20 guests. I met the owner at the bar in the hacienda and we sat down and discussed his business and the Internet at length. We conducted the interview over cup of coffee and a snack. There is some history to the hacienda, and the interviewee's background was not in tourism but in electrical engineering (he had completed a Masters in the USA). He also held a post as the Ecuadorian ambassador to Italy and Turkey.

He discussed his work and life for some time. The hacienda was built in 1720 and has been part of the same family ever since. His father passed away in 1996 and at that time he decided to turn the hacienda into an open home stay/hotel. Officially it was opened in 2000. His aim was to obtain a niche market and he would limit the amount of guests that he received to 20 at one time. His policy is that his hacienda is open and guests can use any part of the hacienda they like. This includes helping themselves to the bar or any other facilities. The price is all-inclusive and is very expensive. This is important because it illustrates the difficulties faced by the interviewee in marketing his business. He explained that he does not want 100 customers paying 10 dollars each (his hacienda can not sustain this), instead he prefers a small amount of around 20 or so customers that can pay a high price. He had also travelled extensively and believes that people like him prefer to stay in places of character as opposed to large chain hotels that are exactly the same the world over. His wife had a background in tourism. She worked for Thomas Cook but was not involved in the accommodation sector at all. The interview lasted approximately five hours.

Interview with EM10

Back in Quito an interview was conducted with the owners of EM10, about 30 minutes walk from Mariscal. The interview was conducted with both of the owners who were Ecuadorian and husband and wife (the husband came in and out of the interview). The hotel is located in the heart of the business district away from Mariscal and the old city, which are the typical tourist areas. The hotel had been running for

approximately six years. One of the owners explained that their clientele consists of mainly business travellers, something that they did not plan for initially. Most of their customers are from within Ecuador, Colombia, and other parts of South America as well as China. These are solely business customers who stay for an extended period of time. Sometimes they stay for up to one year. One interviewee explained that Chinese businessmen often arrive with one suitcase and then leave six months later with a multi-million dollar business/or business deal. The lodge has an occupancy rate of around 60 percent. For this reason, the lodge cannot really cater to large groups, as these groups would simply not fit. The owners are planning on expanding and creating more rooms. Both owners were very forthcoming with responses. One of the owners pointed out that she had had a stressful day and that she needed a cigarette or two – for this reason I did not extend the interview for as long as it could possibly have gone for. It is a family run business. Both interviewees spoke excellent English and were educated in the USA and England. The interview lasted 35 minutes.

Interview with ER11

Moving on to a rural area, the next interview was conducted about seven hours away from Quito. The village name is Chugchilán in the Cotopaxi region (from Quito it is a two hours bus ride to Latangunga, then a four-five hour bus ride to Chugchilán on a dirt road – during the bus ride I shared a seat with a cage of chickens and a sack of potatoes). Located in the Andes, the eco-lodge is in a very remote, picturesque location. The lodge is quite well known for its environmental and community development philosophy. The interview took place in two parts, the first with the female owner and later with the male owner (they are a couple originally from the USA). The female owner told me the story of how they both first visited the Chugchilán in 1993 as backpackers. They fell in love with the location and stayed with a local family because there was no accommodation at all in the area. After staying there for a few weeks a local suggested to them that they should buy some land. They ended up purchasing land and then decided to build a lodge. When they began to build the lodge the female owner explained that the locals thought they were crazy because there was no tourism at all in the area.

They began by building a small lodge and then developed it from there. When they began the business in 1995 there was no telephone access at all in the village. Both owners are both heavily involved in the community. One works in the school and the other was recently asked to be the head of the water committee of Chugchilán. When the lodge first opened and became popular they found that they could not cope with the demand and the female owner explained that she even begged others in the community to develop new lodges. Shortly after, two other lodges opened. There are now three lodges in Chugchilán. On the wall of the ER11 there are dozens of awards from environmental and travel magazines from around the world, which highlight their success.

The second part of the interview took place with outside with the male owner who showed me in great detail how the satellite-dish set-up works (the satellite-dish is how they access the Internet – this is discussed in much more detail in the data analysis). Both parts of the interview lasted one hour and fifteen minutes in total.

Interview with ES12

The final interview to take place was with tour and lodge operator. The owner of ES12 was a Dutch woman that was married to an Ecuadorian. The owner invited me their lodge in Tumbabiro (a four-hour drive from Quito). The interview took place at the lodge. The business also consists of a tour business, which is run out of their home, in a semi-rural area outside of Quito (that I also visited). The owner was very open and forthcoming with responses and made sure that I understood that she strives for a balance between technology/business, a good lifestyle, and conservation. The interview lasted one hour.

7.1.4 Observations and reflections

One notable difference amongst the Ecuadorian STEs was that foreign owners and managers made up the majority of people interviewed (seven in total). Another three studied abroad, and only two were educated in Ecuador, however they had worked extensively abroad. Two participants had also worked in high-level positions within the government. This is quite distinct from the case amongst the Malaysian STEs.

Seven enterprises that expressed interest in participating in the study were not interviewed for various logistical and communication reasons. However, this was factored into the initial expectations.

One popular area of discussion amongst Ecuadorian was politics. All participants talked at length about all sorts of political problems (discussed in the data analysis section). Like the Malaysian enterprises, the Ecuadorian enterprises were all very hospitable and open for discussion. English was not a significant problem in any instance.

While in Ecuador I stayed with a family home stay (which operated like a small lodge) in Quito during most of the field research. This was also a great experience related to the study. The lady that ran the home stay was an older Ecuadorian that spoke no English and was very keen on building her Internet presence to promote her business and receive more customers. She was also involved in a development project that aimed to boost tourism to a poverty stricken afro-Ecuadorian village. I spent a lot of time helping her fix her website, choose portals to promote on and write emails to create alliances and even to reply back to potential customers in English. Although this tourism operator was not interviewed (because of the language barrier) it did give excellent insight into the challenges faced by micro enterprises.

7.1.5 Summary of the interview descriptions

This section described the actual conduct and ‘gesalt’ of the data collection in Malaysia and Ecuador. Each interview was briefly summarised to inform the reader of the context in which the study took place and provide some insight into how the interviews were carried out. As was observed, a number of the participants were family run and were eco-tourism focused. The reader is reminded that these are two common characteristics of STEs in developing nations.

7.2 The data analysis

This section will discuss the data collected during Phase Two in regards to the e-readiness component of the framework. The e-readiness component of the framework that was refined in Phase One will be used to guide the discussion (refer section 5.2.9 for the framework). The reader is reminded that there are three contextual areas, the Macro Environment (consisting of government readiness and the supporting industry readiness); Organisation Readiness (consisting of financial and employee resources, existing IT infrastructure, socio-cultural factors, and manager characteristics; and Market Readiness (consisting of customers, competitor pressure, suppliers and partners, tourism enablers [online intermediaries], and collaborations). Each contextual area and factor will be briefly described and then discussed in detail in light of the interview data. First, the interview data from Malaysia and Ecuador will be discussed country-by-country. Then at the end of each section the data from the two countries is summarised together. The purpose of discussing the interview data in this manner is to determine the most pertinent e-readiness factors in each country and to identify any similarities or differences between them.

7.2.1 Contextual area one: The Macro Environment

The macro environment contextual area refers to the overarching business and ICT environment. This area is typically out of the control of small businesses (but influences to a large extent what a business can and cannot do). There are two factors suggested within the macro environment contextual area, government readiness, and the enabling environment. These two factors are discussed here in light of the data gathered from the interviews.

Government Readiness

This factor refers to government support in terms of policies, involvement, support and enthusiasm towards e-commerce. It has been observed that these factors are essential for introducing and exploiting the potential of ICTs (Rizk 2006; Mujahid 2002; Pradhan 2002; Montealegre 1998; Sadowsky 1993).

Malaysia

Before discussing government readiness amongst the Malaysian STEs, it bears reminding that the Malaysian government has taken steps to foster the development of e-commerce. As a result of this government enthusiasm and commitment, Malaysia's ICT plan has been described as one of the most aggressive in the world (Ratnathicam 2002). It is against this policy background that evidence from the field research suggests that government e-readiness is high and that the efforts of policy makers have paid dividends.

A number of participants in Malaysia alluded to government support initiatives that were used when adopting e-commerce. These were not aimed specifically at STEs; rather they were initiatives designed to support enterprises generally with ICT development. The Malaysian Small and Medium Industries Development Corporation (SMIDEC) website (www.smidec.gov.my) lists many initiatives targeted towards SMEs, such as loans for SMEs to use ICTs to improve competitiveness, efficiency and

productivity, and for the purchase of computer equipment and training. Two enterprises (MM10 & MM12) reported that the government provided support through loans for tourism enterprises and loans for ICT businesses. In particular the owner of MM12 commented *'government gives loans to two types of enterprises: IT and tourism'*. This business obtained a government loan but did not use it on an ICT related investment and pointed out that the '*government is pushing tourism, and many people are opening lodges and tour companies. However many of them have no knowledge of the tourism industry and how to use the Internet. This is because tourism has very low barriers, people are just taking a floor of an apartment, partitioning the walls and opening up a lodge and seeing what happens*'. Along these lines, the owner of MS7 suggested that the government encourages tourism enterprises to advertise on the Internet. Supporting this, one of SMIDEC's grant objectives was to encourage SMEs to have a website. One STE (MM8) could not receive any type of government support because it was not an accredited tourism operator.

The different types of government support that were reported to be used by the participants were:

- Free listing/promotion on government tourism websites (MS6, MS7, MM10, MS9, MM13 & MM14).
- A telecentre built in a remote village to provide Internet access to community/STEs (MR2, MR3, MR4 & MR5). This project (e-Bario) was undertaken by the Universiti Malaysia Sarawak (UNIMAS) and the local community and partly funded by the Malaysian government. A quote from the e-Bario project website (www.unimas.my/ebario) reiterates the role of government '*the project was undertaken against the background of the Government's aggressive adoption of ICTs for national development and the underdeveloped infrastructure and scattered population of Malaysia's largest state, Sarawak'*.
- No tax paid on ICT equipment (MS7 & MS9).
- A rebate that was double the amount paid for developing the business website (MM10).
- No tax if the business was able to prove that it attracted more than 500 tourists to the country (MS6).

Despite these positive government initiatives, none of the participants reported that government readiness was something that they considered in the planning and adoption stages. Nonetheless, interviewees suggested that the government has taken steps to make sure that all the necessary ingredients were in place to provide an environment favorable for e-commerce adoption and use. In other words, the government has developed a strong enabling environment. It may be that enterprises have taken for granted the work that has occurred in the background to establish Malaysia as a highly 'e-ready' developing nation and that government readiness has been inherited in the overarching infrastructure and e-commerce environment. At the same time, there was generally a positive view of the government and its policies surrounding ICTs, SMEs, and tourism. The general consensus was that the ICT environment is continually improving and that the government has done well to increase the number of visitors to Malaysia. In particular, the numbers of visitors to East Malaysia have increased (East Malaysia has not traditionally enjoyed the same numbers of tourists as Peninsula Malaysia). Located on the island of Borneo, the states of Sarawak and Sabah have remained off the typical South East Asia tourism route because of the cost of flights from neighbouring

countries. However, this has recently changed with the introduction of budget airlines such as Air Asia to the region.

The development of e-tourism in Malaysia has been widely supported by the government with the development of the www.tourism.gov.my website. The award winning website's[9] primary role is to provide useful, accurate, and comprehensive information for both local and international tourists (WTO 2002a). Furthermore, this website has provided STEs the opportunity to promote themselves to international audiences for free on a scale that could not be performed with an individual website. This was one area where the enterprises suggested that government readiness was important. Six enterprises were either listed on www.tourism.gov.my and/or www.sabahtourism.com or www.sarawaktourism.com. In each of these cases the exposure through these websites was seen as valuable. Another two enterprises (MR11 & MM12) were in the process of being listed with one of these government websites. The owner of MR11 explained that tourism officials have visited the lodge and taken photographs on a number of occasions to prepare for the listing on the official government website. When asked if it was important to be listed on the official tourism website, the owner of MM11 explained that it was essential to be recognised as a genuine and legitimate tourism enterprise. MM13 had been on the official Sabah tourism website for around five years and the owner commented that it was '*very important and resulted in more customers*'. In MM13's case it was all the more important because the business did not have a website (due to a lack of financial resources and know-how) and www.sabahtourism.com was the main means of online promotion and reaching a worldwide audience. This suggests that government initiatives can assist STEs to compensate for areas in which they are deficient.

Ecuador

Based on the background discussion of ICT and policy in Ecuador, government readiness in Ecuador can be described as being low. Low government readiness and the lack of ICT policy had a number of repercussions for the STEs in Ecuador. There was a negative view of the government amongst the STEs. (On the topic of government readiness the researcher observed obvious changes in the body language and tone amongst participants. Interviewees would shake their heads and go off on tangents on a series of government issues, some related to this study, others not). The owner of EM5 remarked '*I ask for nothing and receive nothing*' referring to government support. The interviewee continued to say that small businesses are simply a '*milking cow'* for the government. One participant (EM8) reported '*they [the government] do little to help the people or business or tourism and in fact they are more interested in selling oil and filling their pockets while they are in power'*. This participant also lamented that the *'government infrastructure is poor, medical, welfare, everything!'*

The dissatisfaction with the government was not limited to the domain of ICTs and tourism. Participants vented all sorts of frustrations on issues such as high taxes, environmental issues, general view of the

[9] Awards include Travel Weekly Golden Awards in 2002 for the best website in the National Tourism Organisation category and the top 20 Best Government websites in 2001.

government as ineffective and the recent currency change. One participant (EM8) asserted that the country was in chaos when dollarization took place.

Participants complained of the high cost of ICTs and poor infrastructure. The cost of ICTs was even comparatively higher than most other developed nations, and was a result of a previously controlled telecommunications sector and high taxes on ICT equipment (Ecuador has also experience some of the highest inflation in the hemisphere). There seemed to be some uncertainty concerning the reason for the high cost of ICTs. The suggestion was that the government still elicited money from the telecommunications industry even though it was mostly privatised (EM4). In fact, one participant (EM8) suggested that ICTs are comparatively more expensive in Ecuador than anywhere else in the world, and explained that some of her friends are local software engineers who support this claim. As an example, participants in this study paid on average US$ 75 per month for a broadband package (Ecuador GNI per capita is US$ 2,620)[10]. On the other hand, amongst the Malaysian STEs the average cost was US$ 21 per month (Malaysian GNI per capita is US$ 4,970).

Three enterprises (EM6, EM3 & ES1) believed that the situation was improving. The owner of ES1 mentioned that the government allowed more competition into the telecommunications sector, which she believed had resulted in the introduction of cheaper ADSL. The owner also gave the example of how previously she would have had to pay '*an outrageous price of something like 200 US dollars a month*' for an ADSL connection. Another participant (EM3) reported that the government was trying to improve the situation by doing more by pushing for better education and ICT infrastructure, but this was all happening slowly because Ecuador is a 'new' country[11] and *'this takes a lot of time to happen'*. This participant believed that connectivity had improved drastically over the last two years through privatisation and the introduction of more and more ISPs into the market. According to this participant in the early days Internet charges were around US$ 200 per month and it was only available for larger businesses and the wealthy sectors of society.

The owner of EM4 explained that all registered tourism businesses pay US$ 40 a month to become a member of the chamber of commerce and complained that he received nothing back for that money. He also lamented the government helps '*zero percent*' and continued to say that tourism enterprises pay the highest percentage of tax, higher than any other industry, even more than the oil industry. The suggestion was that this was because the government assumes that tourism enterprises make large profits because they mainly deal with foreign currencies. Finally, the owner of ES12 suggested that the government acts as a barrier and the *'government is not up-to-date, they have old systems and lines, very bureaucracy [bureaucratic] which makes it difficult to go on Internet on-line'* and continued to say '*government is not helping at all. All you have to do private [you have to do everything yourself]'*.

[10] As per World Bank (2006) Atlas method.

[11] Ecuador gained independence from Spain on the 24th of May 1822.

Another area where the government was not perceived to be ready (or helpful) was in terms of its online tourism marketing campaign. In Ecuador there was very little online marketing taking place on the part of the government. The official website (www.vivecuador.com) provided little opportunity for small enterprises to be promoted worldwide. One participant (ES9) commented that '*their [Ecuadorian government] marketing campaign is extremely poor',* and later reiterated *'government is doing a poor job of marketing tourism'.* The owners of ER11 received an eco-tourism certificate and along with this the business was promoted on a government tourism website, but the website was never updated and it was difficult to locate (the researcher could not locate this STE on the government website). Along these lines, Talamanca et al. (2006) reported that most government portals are not updated. Another participant (EM10) explained that the government provides no assistance in terms of ICTs but that the ministry of tourism helps by promoting the business in traditional media.

Officially, Ecuador receives around 800,000 visitors (WTO 2006a). However, some enterprises (EM4, EM7 & EM5) disputed this figure. They claimed the number included refugees and illegal immigrants from Columbia, some of which crossed the border multiple times. According to the owner of EM5 the figure was closer to 400,000 thousand and roughly a quarter of tourists only visit the Galapagos Islands.

What has been the impact of low government e-readiness for STEs? As observed, there are a number of implications. They are: the high price of the Internet and ICTs generally, poor infrastructure, the lack of support and policies to assist STEs with e-commerce adoption, the lack of effective governmental online presence, and a general negative attitude toward the government. There are some follow on effects, namely the impact on organisational readiness as enterprises were forced to do everything themselves.

Summary of Government Readiness

A synthesis of the data from the two sets of STEs presents some interesting discussion points. It has been observed on a number of occasions in this thesis that Malaysia is in a relatively more favorable position in terms of its overall e-readiness. This has become even more apparent after the discourse on government readiness in light of the data gathered in Malaysia. One area where Malaysia has succeeded is in providing support and initiatives to small enterprises to adopt and use e-commerce. This echoes previous observations in this thesis surrounding the aggressive ICT development occurring in Malaysia. The discussion also suggested that government readiness (where high) could have a facilitating effect and provide opportunities for STEs. In support of this, some authors argue that government involvement, enthusiasm, and support are essential for introducing and exploiting the potential of ICTs (Rizk 2006; Mujahid 2002; Pradhan 2002; Montealegre 1998; Sadowsky 1993). For Malaysian STEs, this meant that they were less affected by the cost associated with e-commerce (through various support schemes) and an accredited STE would be able to receive promotion through the official government tourism website. It also showed that through promotion on a government tourism website that an enterprise need not invest its limited resources to develop a website themselves, as was in case of MM13. Similarly, in Samoa, Purcell et al. (2004) found that for STEs that did not have their own individual web presence, it was important to have the business advertised on the Samoan Visitor Bureau website. This suggests that the availability of a successful online tourism marketing initiative by governments can be extremely beneficial. Along these lines, Gartner (2004) suggests that STEs should partner with destination service providers that are able to reach the market

through various means - allowing the STE to benefit from the marketing undertaken by the destination service provider. Government readiness amongst the Ecuadorian STEs presented some serious issues. First of all, government readiness was seemingly underpinned by a lack of ICT policy and most participants shared a negative view towards the government. Ecuador has been politically erratic for the last ten years. Enterprises were concerned that the government did not promote Ecuador as a tourism destination through a successful online initiative (the view was that Ecuador is blessed with the Galapagos Islands, Amazon Rainforest, Surf Coast and some of the highest mountains in the world, and that these assets need to be marketed). No Ecuadorian enterprise in this study received any type of support from the government. In fact, one participant (ES12) posited that you have to do everything yourself. On the positive side, three participants (EM6, EM3 & ES1) reported that things were improving, albeit slowly. It was mentioned on two occasions that ICT prices have decreased in recent years.

It is difficult to measure the overall impact of the low government readiness in Ecuador. The general view was that more and more tourism enterprises were online to some extent. Therefore, although some serious shortcomings were identified, evidence from this study clearly shows that low government readiness has not prevented e-commerce altogether. At the same time, the government has not fostered an e-commerce environment conducive for STEs. In making a comparison with Malaysia in regards to government readiness, it is clear that the Malaysian enterprises operate in a much more encouraging environment.

Overall, although these two cases are very different, they do highlight the urgency of the need to examine government readiness. This is in line with the comments from two experts in Phase One of this study. They suggested that while governments can act as an enabler (by providing various types of support and an environment conducive to e-commerce adoption), government readiness (or lack of it) might also be an inhibitor. As observed, in the case of Malaysia it may encourage STEs to exploit certain opportunities. These opportunities may help a STE where it is deficient in another capacity such as lack of financial resources or knowledge to promote itself online. Conversely, in the case of Ecuador an audit of government readiness may highlight that STEs may need to overcome certain obstacles that may be in place and possibly require a higher level of organisational readiness to offset the lack of support.

Supporting Industry Readiness

The supporting industry readiness refers to the infrastructure and services that are required to be in place to allow STEs to engage in e-commerce. The previous section alluded to some aspects of the supporting industry that are related to government readiness. To provide some structure to the discussion this section is divided into three areas: general support services (such as technical support and website designers), the telecommunications infrastructure (the physical infrastructure), and financial institutions/services to support online payments.

Malaysia

General support services

All of the Malaysian participants, except those located in Bario, agreed that there was an abundance of web developers, ICT support, and other related services available. However, professional assistance was rarely

employed. Two participants (MM1 & MR11) shed some light on the reason for this - they commented that even though professional services were readily available they were expensive. One of these (MM1) gave the example of consultants asking for RM 1000 (US$ 268) just for yearly website maintenance. Another participant (MS7) made a point of stating that he was not satisfied with the work of the website developer and the website promoter.

Even though supporting services were available, there was frequent use of informal networks, such as family and friends to assist with all aspects of e-commerce. Six of the participants (MM1, MR11, MS6, MM8, MM12 & MM14) used these informal networks to develop their website or developed the website themselves. When queried why this was the case a common response was something along the lines of '*that's the way it is done in Asia*' (MM12) and '*people give jobs to their family and family do favors for each other*' (MM12). Conversely, one participant (MM14) pointed out that she would move away from using internal expertise for the business website to using a European consultant in the near future. The suggestion was that a European consultant would better understand the requirements of the business as well as the international market mind-set (the bulk of MM14's customers were European).

In addition to using family and friends to develop websites, informal networks were also utilised for other ICT support and advice. This ranged from tasks such as installing anti-virus software to setting up an Internet connection. The owner of MM1 received technical support from his daughter and his nephew, while two others (MS6 & MM13) turned to a friend for technical advice and support. Only two enterprises (MM10 & MS7) actually paid for professional ICT support. The remainder of the enterprises maintained ICT systems themselves. In most cases this simply involved a computer connected to the Internet.

Concerning other e-commerce services such as hosting providers and ISPs, the view was that these were also readily available. One participant (MM14) chose to use an overseas-based host because she was unaware of local hosting options (however, she mentioned that she did not bother looking locally). The owner of a remote STE (MR11) hosted the business website in Singapore, and explained that '*it's a jungle out there'* (referring the local ICT market). The main reason for using an overseas hosting service was because the owner disagreed with the government policy on Internet censorship; commenting '*the Internet is totally government owned*'. Even though this did not affect the operation of the business, the owner was opposed to this type of governance and commented '*I believe in free enterprise*'. Although Malaysia has offered complete Internet access free of censorship to organisations in the MSC (the Multimedia Super Corridor) as an incentive to foreign investors (Ramasamy, Chakrabarty & Cheah 2004; Bunnell & Coe 2005), there are still strict censorship laws in place outside of the MSC (Singh 2000). At the same time however, the effect of censorship on small enterprises or in tourism has not been well explored. In a study of over fifty businesses in Malaysia, Mukti (2000) found that censorship was only cited as barrier in less than ten percent of cases. A similar proportion (seven percent) of STEs in this study was concerned with Internet censorship.

Telecommunications infrastructure readiness

Broadband was available to all of the urban and semi-rural participants. Although many broadband users (MM8, MM12 & MM14) complained of an unreliable connection they saw broadband as a valuable and

cost effective tool. Three enterprises (MM13, MR11 & MS6) used dial-up. The owner of MR11 complained that the business was out of range for broadband and that the dial-up connection was poor. This often forced the owner to drive 20km to the nearest town to access the Internet from an Internet café. This participant had satellite TV but lamented that it could not be used to access the Internet. One participant (MS6) was using broadband previously but reverted back to dial-up after being charged extremely high monthly fees (RM 1080: US$ 290) for the service (the owner claimed he was overcharged because the business was located in a semi-rural location).

In Bario, all enterprises (MR2, MR3, MR4 & MR5) accessed the Internet through the local telecentre. The telecentre connection was made available through VSATs that run on solar energy, with a diesel-powered generator serving as the backup. Enterprises (and locals) in Bario paid RM 3 per hour (US$ 0.8) for Internet access (tourists paid RM 5: US$ 1.5 per hour). When the telecentre was initially developed the connection was very unreliable. However, since Engineers Without Borders (a British organisation that facilitates development through engineering) had improved the infrastructure it had become much more reliable and outages were less common. Figure 26 illustrates the proportion of STEs that used different types of Internet access.

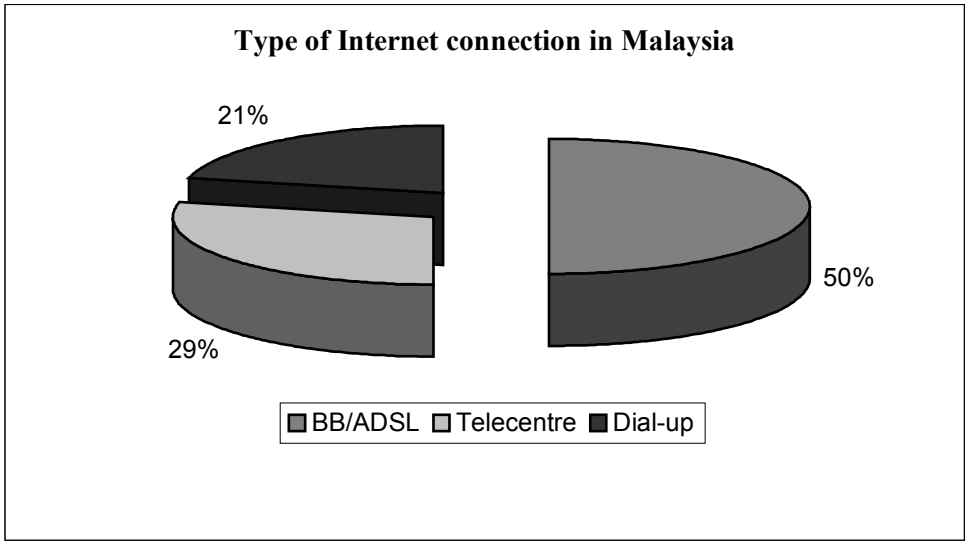

Figure 26: Proportion of Malaysian STEs that used various types of Internet connection (refers to primary Internet connection).

In addition to problems with the telecommunications infrastructure, several participants experienced issues with the power supply (MS9, MR11 & MS6). The problem was that the power would cut out and leave the STE without electricity. It was so problematic that one enterprise (MS9) needed to use an Uninterruptible Power Supply (UPS) for backup. Another enterprise (MR11) explained that the power was '*90% reliable plus our own generator*'. A further two enterprises (MM10 & MM8) also experienced issues with interrupted power in the past, however they explained that this was no longer a frequent occurrence.

Financial institution readiness

It was unclear from the interviews conducted whether the local financial institutions were prepared for online transactions. None of the participants offered online transactions. The general view was that at that point it was not appropriate or the volume was simply not there to warrant the investment (that is, there was no critical mass) and it was technically complicated. One participant (MR4) explained that this feature could be used in the future but at that time the business was *'at the beginning stage'* of e-commerce. The owner of MM10 shared a similar view – he was not sure that the business was ready to tackle online transactions at that time.

The owner of MS1 explained that he made many credit card purchases online, mainly with AirAsia for the local customers that use the airline ticket component of the business. This was the only way he could make a booking because using the telephone was time consuming and expensive (the AirAsia head office was located interstate). He had considered offering online payments for customers. However, ultimately he decided it was not necessary, because customers could simply make tour reservations online via email. He also explained that he did not have a problem with cancellations or collecting money on arrival from customers. On a small number of occasions he received payment via telegraph.

Nonetheless, online payments were the next step for three participants, although there seemed to be some confusion surrounding if and how transactions could be performed and the readiness of financial institutions to carry out this task. One participant (MS6) believed that local banks were not prepared to handle online transactions and that a bank based in the USA would need to be utilised for this purpose. This participant discussed various options such as using e-bay to offer online transactions and explained that he preferred to use traditional international bank transfers to transact with an overseas-based intermediary. The owner of MS9 was waiting for a global payment system that was supposedly materialising from Hong Kong before offering online payments. Only one enterprise (MM12) was in the process of applying with a local bank to be able to offer online transactions (although at the time of writing this thesis there was no indication that online payments were being performed). This suggests that this is an area that needs to be addressed by policymakers before STEs can progress to the next phase of e-commerce sophistication. Encouraging online transactions amongst SMEs was an objective of the SMIDEC in 2001 that appears to not have been achieved by the STEs in this study.

<u>*Ecuador*</u>

General support services

In Ecuador four participants (ES1, EM8, EM10 & ES9) suggested that there was easy access to all the necessary supporting services. Of these, two were metropolitan and two were semi-rural. However, the owner of ES1 had to look to Quito for a website developer, as there were very limited options in Otavalo. Three participants (EM10, EM8 & EM5) reported that while it was not difficult to find a website developer, the trouble was finding a *good quality* web developer who could meet the business needs.

Unlike the Malaysian STEs, there was not the frequent use of family and friends to build websites and for technical support and advice. At the same time, other than for the development of websites, other types of

ICT support were never sought from external professionals. The first attempt by one participant (EM10) at developing a website was *'a complete disaster'*. After this attempt the owners employed a professional. However, the owners were still not satisfied with the result. This was because the website did not list well in Google searches. They were working on moving up the list in search engine results with strategies such as using portal websites to lift the number of times the website URL appears on the web. Another participant (EM8) was also not satisfied with the business website or with the promotion of it (which would carry an additional fee). Explaining that there was an abundance of professional IT resources to call upon in Ecuador, but it was difficult to find someone that could do a sound job. Two participants (EM4 & EM6) hired an expert for promotion of their websites (EM6 used a local small business to actually develop the website). They both believed that it was not difficult to find such services in Quito.

In most cases participants did not know if hosting of the website occurred locally or abroad (this was easily identified using www.dnsreport.com - which indicated that most websites were hosted in the USA). One participant (ES9) hosted the business website on a server in Nevada, USA and explained that it was cheaper (US$ 9.8 per month as opposed to perhaps US$ 100 in Ecuador) and faster to download, especially for people in the USA. Along these lines, UNCTAD's (2004) guide for SMEs suggests that SMEs in developing countries consider hosting their website in the country of the customer base.

Telecommunications infrastructure readiness

All of the participants (except for EM5) had Internet access within the business premises (the owner of EM5 accessed the Internet from home). Participants experienced a number of issues with their Internet connections. A tour operator (ER2) located on a small island in the Galapagos, remarked that connectivity was a real issue. The interviewee was unsure of the type of Internet connection, but labelled it '*the slowest broadband ever*'. Most of the time she used the Internet at a nearby public Internet access point. She also reported difficulties with the power source. Power surges often destroyed equipment and the business had a UPS but still suffered from power surges. As a consequence, the business needed to use a power voltage *'thingy'* to keep equipment safe. Power surges and power outages were even more common at the central access point where she often used the Internet and on many occasions equipment was ruined. In the case of this enterprise the environment further suffered from the increase in tourism, which lead to an increase in population (mainly people arriving to find tourism related work), which in-turn caused a burden on the existing ICT as well as general infrastructure (such as roads, electricity, water supply, and so forth). She elaborated that people arriving on the island are illegal immigrants and *'tourists do not see this side of things'*.

The owner of ES12 reported that dial-up was not that difficult to set up but *'Banda Ancha [Broadband] is extremely difficult'!* In the previous two months the business experienced many problems. The owner reported that emails were not received and the business experienced poor service and incapable technicians: '*since 5 days I try to change Internet provider and I am exhausted because the old provider is bothering and is not passing information [that the] new provider need[s]. It really is a headache and hopefully new provider can make us on-line within 10 days*'. The impact of this was that the owners wasted time and resources fixing problems. The owner remarked that the time taken could be used for other activities and

the downtime was especially arduous because customers abroad did not understand why the business frequently experienced Internet problems and that *'damages a bit our image'*. She also gave an account of the use of ICTs in a semi-rural area *'for 1 month ago, they just cut the electricity without warning and computer got broken. Probably people from the electricity are not informed or ignorant that we use computers in Conocoto'*.

The owner of EM6, who managed three Cabañas out of an office in Quito used a dial-up connection, however, the owner was planning to upgrade to broadband. The owner explained that at the actual Cabañas (the lodges in the Andes) there was no telecommunications *'other than a dodgy phone we brought from a nearby village'*. This was one of the reasons for needing to run the business out of the home office in Quito.

In one extreme case, the owners of an eco-lodge (ER11) explained that when they first settled in a remote part of the Andes to setup a lodge there was no telephone line. To rectify this, when they used to drive to the nearest large town (roughly four hours drive away) they would stop by the local telephone company, and request in person for a telephone line to be setup in the village. A first line was installed a few years later, and more lines were added in 1999. At that point, the lodge began to use the Internet via a dial-up connection, which was extremely expensive (over one hundred US$ per month including telephone calls) and unreliable. Furthermore, due to a lack of maintenance the quality and reliability of the local telecommunications infrastructure deteriorated rapidly over the last few years *'it was old technology and now it is ancient*'. At the time of the interview, they could only connect via a telephone call about 60 percent of the time, and even then the line was extremely crackly. As a result, it was very difficult to hold a conversation. The owners then told the story of how they acquired the idea of using a satellite-dish to access the Internet from a tourist who visited the lodge with one in his van. After performing a basic cost-benefit analysis they decided that in the long-term using a satellite-dish would provide a more efficacious means of accessing the Internet. They then embarked on purchasing a second-hand satellite-dish from the USA, and had it transported to the nearest town. Without any prior experience in this area they managed to work it out using trial and error. This innovative solution resulted in stable Internet access and decreased telecommunications expenses, and generally as a result of the Internet and their online presence they were able to attract more customers. In fact, because of the deterioration of the existing infrastructure, the Internet became the only reliable means to receive a reservation, and communicate with customers.

Interestingly, when asked about other innovations at the lodge (such as composting toilets, that all facets of the lodge ran on solar power, all food was organic, and everything that was used was recycled) one of the owners explained that they learned from trial and error. Every now and then someone with expertise arrived at their lodge and they would exchange ideas. The satellite-dish sits on a table outside the lodge. One owner showed the researcher the satellite-dish and how it worked, explaining that the satellite-dish points at another satellite in space that was the size of a refrigerator. An extract from the email correspondence between the researcher and ER11 highlights the communication problems faced by the owners: *'we are back from our vacation, which was great. Unfortunately our telephone lines have been down for over a week, but we still have the Internet because we had installed a satellite connection about 2 months ago. Let us know how you want to proceed... it is unclear as to when the phone company will be able to fix the village phone system.'*

A Quito based operator (EM5), who used the Internet from home in a semi-rural area, lamented that '*I can ride faster than my connection*'. The Internet connection was so slow and intermittent that the owner needed to download emails, go offline, and reply to them offline, before returning online, and sending the reply. Also, sometimes the owner made use of an Internet café in Quito (although the owner tried to limit the use of them because of the cost involved - usually around one to two US dollars per hour). This is another example of dealing with the unreliable and inadequate infrastructure.

One participant (ES9) gave a positive account concerning the telecommunications infrastructure, claiming it was good and improving. However, the interviewee explained that he had to wait one year for a new telephone line to be installed. Figure 27 illustrates the proportion of STEs that used broadband/ADSL, cable, dial-up, and satellite Internet access.

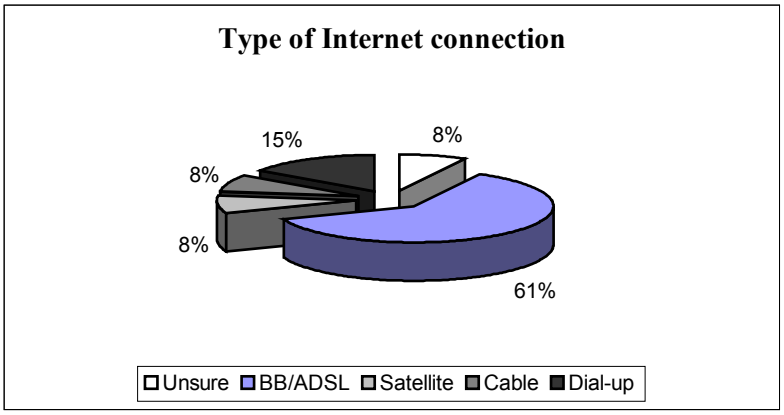

Figure 27: Proportion of Ecuadorian STEs that used various types of Internet connection (refers to primary Internet connection).

Financial institution readiness

Like the Malaysian STEs, there was some uncertainty as to the actual readiness of financial institutions as well as the overall enabling environment to support online payments. Two enterprises (EM7 & EM10) offered the facility for online payments through their websites. This was through PayPal (which is a third party service that enables an individual or business to securely send and receive payments online) and to a lesser extent through credit cards and was only used by overseas customers. This came as no surprise because credit card penetration in Ecuador is less than four percent (Karake-Shalhoub & Al Qasimi 2006). This is interesting because none of the Malaysian enterprises offered this level of sophistication, despite their relatively higher level of e-readiness. A reason for this may be that Ecuador was surprisingly one of the first countries in Latin America to develop an infrastructure for digital certificates to allow consumers to use secure applications for e-services (Tetelman 2003). The owner of ES1 commented that Internet banking had recently become available and that banks are beginning to promote it to the wider community. The owner was paying close attention to how this unfolded, although at the time of the interview she was sceptical. The owner explained that the way banking was handled was that one would enter a bank and spend the whole day queuing and dealing with bureaucracy simply to perform basic tasks. The owner of ES12 was also concerned about the time needed to perform banking duties, especially since the business was located outside of Quito: '*for each deposit we have to go to our bank, sometimes waiting long time*

before they assist us'. For this reason, the owner would like to offer online payments in the future and was generally enthusiastic about Internet banking '*we prefer to do payments on-line, we are not offering but I am thinking to start with this service soon*'...'*however, our bank has a problem and paying on-line is since one month not possible'* referring to a recent problem at the bank.

In the case of ES9 nearly all business and personal banking was performed online, although not for offering payment options to customers. This was because credit card transactions carry an eight percent transaction fee. At present, customer payments are made via bank transfer to a bank in New York in which the owner has an account. The owner of EM6 was reluctant to make the transition to online credit card payments because it was considered to be very problematic. Although, she also remarked curiously '*no one is offering that yet, are they'?*

Summary of Supporting Industry Readiness

Even though only a few enterprises in this study actually used professional ICT support services, the indication was that these services are readily available, although at a price. Only in the remote areas of Malaysia and Ecuador did enterprises suffer from an inherent lack of access to these supporting services. This was simply a limitation of being located in a remote area. For instance, in areas such as Bario or Chugchilán amongst a small population (where the main source of income is through agriculture), it was unlikely the necessary services to build a web presence would be present.

A strategy used (that was also a cultural norm) was to seek the assistance of friends and/or family. This was not only limited to website development but also to technical support and advice (this pattern was more prevalent in Malaysia). It has been observed earlier in this thesis that tourism enterprises suffer from cultural obligations such as hiring friends and family (Gartner 2004), although in this investigation, the use of friends and family seemed to offer significant benefits. Authors argue that external assistance is only sought when an undertaking is perceived to be to difficult to tackle (Paraskevas & Buhalis 2002; Burgess 1998). Experts in Phase One presented a similar argument, two of them suggested that STEs tend to be primarily family run businesses and rarely if ever employ people outside the business, because consultants and IT experts are typically too expensive. This suggests that when examining the availability of supporting services, STEs could first look for the existence of knowledge and expertise amongst existing informal networks. It is important however, that it is actually skilled expertise that a STE makes use of. Along these lines, Gartner (2004) warns that using friends and relatives may not be the wisest decision, as a business may end up with unskilled labor. As will be pointed out (in the discussion of employees) some participants experienced difficulty finding skilled employees to handle the Internet and the English speaking side of running their businesses. Figure 28 illustrates the sources of assistance used to develop a website.

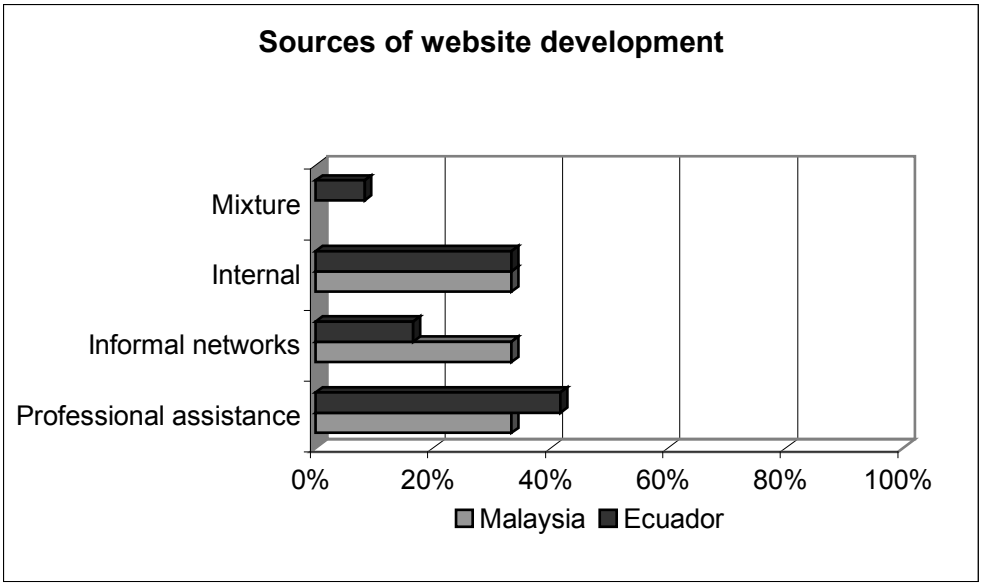

Figure 28: Sources of website development

There were a number of underlying limitations and problems with the actual telecommunications infrastructure across the board. The experience of the data collection unsurprisingly shows that these problems were more acute in rural areas (Chugchilán, Puerto Ayora, Bario, and Miri). As observed, broadband was widely available to most semi-rural and metropolitan enterprises in both countries. Figure 29 displays the types of Internet connection used by participants in Malaysia and Ecuador.

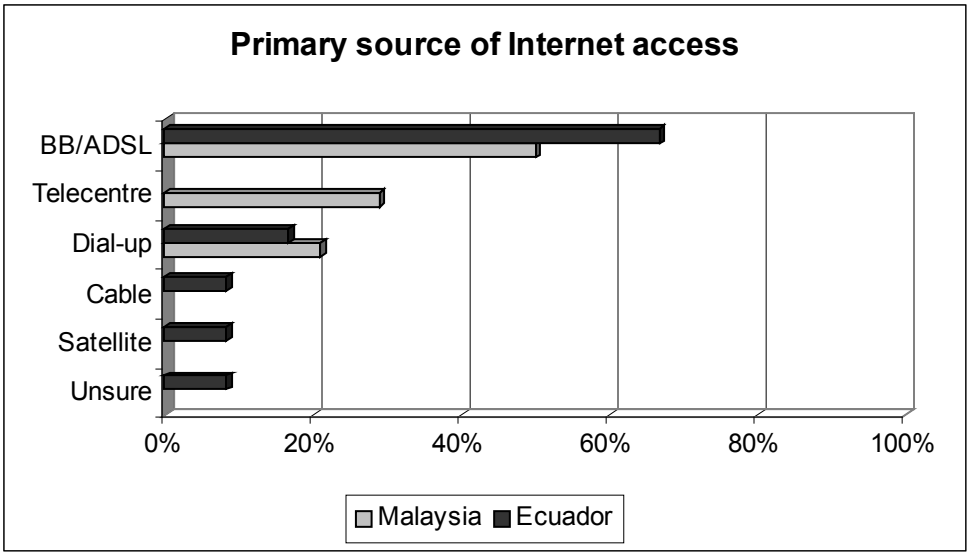

Figure 29: Primary source of Internet access

However, there were a number of issues with the quality of the service. In Malaysia, the problem appeared to be that the number of people online had increased so much over the last few years that the infrastructure could not cope with the extra burden. A number of studies have indicated that bandwidth may not always

be available because of deteriorated telecommunication infrastructure (De Boer & Walbeek 1999; Jennex & Amoroso 2002). Power (electricity) was a small issue in both countries, although it posed a major problem in the case of ER2 in the Galapagos. This has emerged as an issue in other studies (Jennex & Amoroso 2002). A way to counter this issue was to use a UPS or generator. The emergence of these factors as issues supports authors that emphasise infrastructure concerns as the main concerns (Purcell, Toland & Huff 2004; De Boer & Walbeek 1999; Murelli & Okot-Uma 2002) and suggests that authors that argue that infrastructure will cease to be a very significant impediment to e-commerce development in a relatively short time frame, may need to adjust their thoughts. Having said that, even in Ecuador where e-readiness is very low, some STEs suggested that the situation was improving.

A number of strategies and innovative solutions were used to mitigate infrastructural limitations. This suggests a link between adoption, the enabling environment readiness and the owner/managers' awareness (to overcome certain barriers). This supports Wreshs' (2003) argument that enterprises find ways to circumvent local infrastructure limitations. At the same time, enterprises also learned to work within the confines of their environment. Almost one quarter of participants accessed the Internet from a telecentre or other public Internet access point on a permanent or occasional basis. This is inline with the attention that telecentres and public Internet access points have received in the context of developing countries (Harris 2005; Colle & Roman 2005). However, it is an area where there is limited understanding in the context of use by small tourism operators. This is encouraging for other STEs because it suggests that an internal Internet connection is not necessary.

There was some confusion concerning the readiness of financial institutions and other services to support online payments. This may be linked to the limited understanding amongst participants about this e-commerce activity. Overall, enterprises generally felt they were not ready for this step. This is in line with the literature that suggests that online transactions tend to be the least used e-commerce activity by small enterprises (Walczuch, Van Braven & Lundgren 2000; Poon & Swatman 1999). In Malaysia only three enterprises were considering online payments in the near future. In Ecuador, two enterprises actually offered online payments, whilst another two were considering it. In Ecuador, the main driver for this step was to overcome queuing and waiting at banks, rather than any strategic value it may provide, although it could be argued that this could allow owner/managers to devote more time to running the business. Two Ecuadorian STEs used PayPal to offer online payments, this underscores the importance of third party services – this was a point stressed by experts in Phase One.

The discussion of the enabling environment suggests that it is an important factor in facilitating adoption of e-commerce. The enabling environment can be described as a controller (Xu, Zhu & Kraemer 2002) of STE readiness as it dictates what can and cannot be achieved and in some instances will force owner/managers to look for ways to overcome shortcomings in their environment. In this section, a number of underlying infrastructural limitations were identified. The foregoing discussion suggests that participants were aware of the limitations in their environment, and took steps to make the most of available resources. It also appears that participants had become accustomed to working with unreliable Internet connections, and it had simply become part of daily life. It is important to note that even though some enterprises faced

limitations, they all derived some benefit from their online endeavours and all saw the Internet as a continuing integral part of their enterprise.

The supporting industry readiness is a broad area. For this reason, for the purpose of the framework it will be divided into two main factors: telecommunications infrastructure (referring the actual physical infrastructure), and supporting industry readiness (referring to the supporting services, such as website designers, IT support and payment related institutions and services). This simply means that the factors should be considered separately.

7.2.2 Summary of the Macro Environment

Two factors (government readiness and supporting industry readiness) within the macro readiness contextual area were identified as pertinent e-readiness factors. In support of this, an expert in Phase One pointed out that in his experience in the Philippines that the overall external enabling environment is the most important element of e-readiness. The supporting industry readiness factor has been divided into two factors: telecommunications infrastructure and supporting industry readiness. The two factors are intertwined. For instance, Ecuadorian STEs saw the government involvement (or lack of) as a reason for the poor telecommunications infrastructure and high cost of ICTs. This contextual area is described as a 'controller' (Xu, Zhu & Kraemer 2002) because to a large extent it controls what an STE can do online. This contextual area can also serve as an effective judge of the e-commerce environment in a developing country.

There were some major differences between the two groups of STEs. This was particularly evident in the case of government readiness. Malaysian government readiness could be described as high in the context of developing countries. Ecuadorian government readiness on the other hand could be described as low with the government seemingly adopting a laissez-faire approach. This was identified in the literature and was certainly supported by the results of the study. In addition to providing a favourable environment for e-commerce, the Malaysian government also offered supporting initiatives directly aimed at small businesses. At the same time, the case of the Ecuadorian participants suggests that STEs operating in a 'low ready government' environment can still adopt e-commerce. One surprising finding was that no Malaysian STEs offered online payments, while two Ecuadorian STEs offered this feature to customers. Overall the use of online payments was very low (as expected). Given the limited understanding the uptake of this activity is likely to be slow and most probably through the use of third party services such as PayPal.

Even though most STEs in both countries suggested that there was an abundance of supporting services, there was limited use made of paid professional services. There was strong evidence that enterprises turned to informal networks such as friends and family for ICT support and advice as found in other small business studies (Karanasios et al. 2006). Participants also developed websites and maintained the ICT side of the business. This echoes the informal characteristics of STEs described in the literature review.

7.2.3 Contextual area two: Organisational Readiness

Organisational readiness refers to the internal readiness of a business to adopt e-commerce. The factors suggested by the framework within this contextual are cost (which refers to the financial burden associated with adopting e-commerce); employee resources (referring to the skills needed within the business to adopt and utilise e-commerce); the existing IT infrastructure (relating to its ability to accommodate e-commerce); social-cultural factors (which refers to social and cultural issues that may affect the adoption of e-commerce); and finally the manager's characteristics (manager awareness, knowledge, and perceived value of e-commerce). These factors are more easily measured than those external to the enterprise. Factors that are perceived as barriers need to be addressed (some strategies are suggested as revealed by the data collection). These factors are discussed here in light of the interview data.

Financial Resources

This factor refers to the financial resources required to invest in e-commerce. It includes the cost of accessing the Internet as well as the cost of purchasing a computer, and paying for professional support (such as website designers).

Malaysia

Overall, the consensus was that cost invariably influences the types of activities that can be performed, and thus can be considered an e-readiness factor. At the same time, there was evidence to suggest that adopting e-commerce can lower advertising and communication costs. Cost was not a large barrier to e-commerce adoption. Only one participant (MM10) suggested that the start up cost was a hindrance, although the ongoing cost was not an issue. Another participant (MR2) was concerned that he had to pay to access email from a telecentre because initially access at the telecentre was free. Even so, this was not a large obstacle as there was a steady stream of bookings via email to counteract the cost. In fact, it was suggested that adopting e-commerce could result in a reduction in costs by removing the reliance on travel agents and eliminating traditional advertising costs (MR11 & MS9). These benefits are supported by the tourism literature (Collins, Buhalis & Peters 2003; Vich-i-Martorell 2003; Buhalis 1999; Gammack et al. 2004), although not necessarily in the case of developing countries. It was suggested that the complete cost of adopting the Internet was not that high and that all that was necessary was to purchase a computer and have Internet access (MM8). This participant also pointed out that the cost of ICTs in Malaysia were relatively low. Monthly Internet access fees were typically around RM 80 (US$ 21); one enterprise paid as low as RM 28 (US$ 5.6) while the most paid was RM 188 (US$ 50.5) and did not represent a problem. Figure 30 displays the monthly Internet charges for the Malaysian STEs. Overall, the consensus was that while cost was not a barrier to e-commerce (this is largely because the price of ICTs are relatively low in Malaysia), invariably cost influences the types of activities that can be performed, (and thus can be considered an e-readiness factor). The reader is reminded that some STEs complained that outside expertise was expensive (MM1 & MR11) and overall that there was little use of outside expertise. This suggests that the cost of outside assistance may have forced STEs to look internally or to informal networks for assistance.

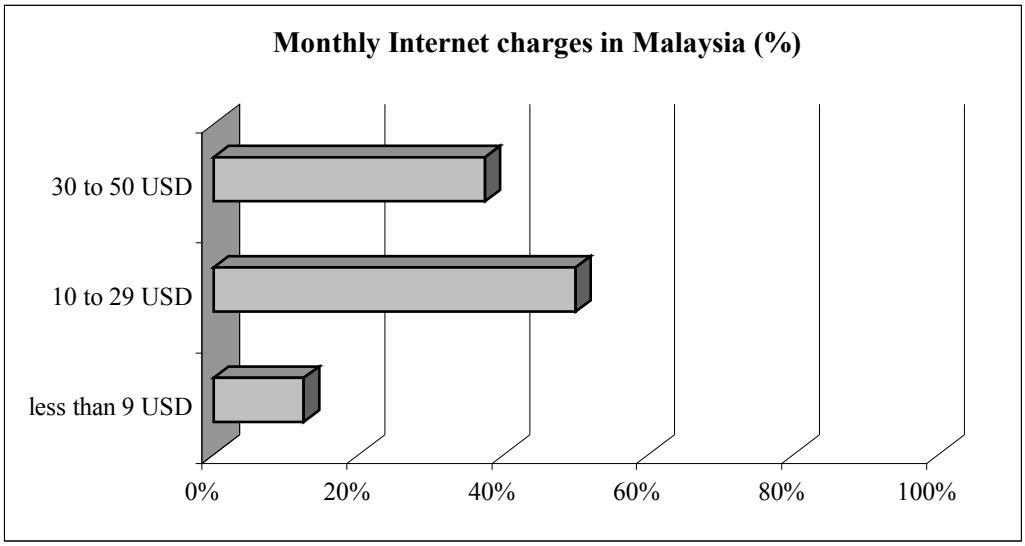

Figure 30: Malaysian monthly cost of Internet connection. Includes broadband and dial-up (does not include dial-up call charges)

Some comments were made referring to the cost benefits associated with adopting e-commerce:

> *'The main reason for adopting the Internet was the cost of advertising'...'it can cost up to '100 dollars Australian for a short advertisement in a newspaper.'...'The Internet provides a very low cost means of advertising/promotion rather than printing brochures which is expensive'...'With a website it is cheaper and you can update it as often as you like.'(MR11).*
>
> *'Cheap cost of advertising and communicating.'(MS9)*

Some enterprises also found ways to keep costs down. This is an area where owner/managers showed endeavour. In fact, there was some association between the owner/managers' readiness and how cost impacted the decision surrounding e-commerce adoption. The ways owner/managers reduced the cost connected with e-commerce adoption are:

- Using simple, low cost online activities such as email and basic web publishing that are inexpensive and require very little maintenance.
- Using friends or family for IT assistance, advice, and website development, or performing these tasks internally (rather than paying for professional assistance) (MM1, MR11, MS6, MM8, MM12 & MM14).
- Using the brand of third-party tourism websites (such as online intermediaries and tourism portals), and using the resources of these websites such as marketing power and booking engines (MM1, MR11, MR2, MR3, MR4, MR5, MS6, MM12, MS9, MS7 & MM14).
- Accessing the Internet from a shared access point as opposed to purchasing all the necessary equipment to use the Internet internally (MR2, MR3, MR4 & MR5).

- In the case of Bario, rather than every STE having their own website, STEs collaborated together (UNIMAS and the local community see http://www.unimas.my/ebario/index.htm) and used a joint venture (e-Bario) to promote their lodges and the destination as opposed to promoting their lodges individually (MR2, MR3, MR4 & MR5).
- To lessen the cost of e-commerce one enterprise (MM1) was hosting its website for free using a free hosting service. Another enterprise (MM14) hosted its website for free at first, and later moved onto paid hosting once benefits materialised. (These were free hosting services that provided URLs, such as www.geocities.com/*your business*/ or www.fortunecity.com/*your business*/).

Ecuador

As observed on a number of occasions, enterprises in Ecuador paid comparatively higher prices for ICTs than their counterparts in Malaysia and (it appears) many other parts of the world. Nevertheless, the cost of adopting e-commerce (although problematic) was not seen as a major hurdle. Generally, it was difficult for enterprises to comment on the impact of the cost of e-commerce because it had been part of the business for more than a few years or even since start-up. Along these lines, one participant (EM5) remarked *'cost is an issue, but it is hard to quantify as the Internet has always been part of the business*'. Another participant (EM8) pointed out that *'cost is not an issue**, but everything is expensive!'*** referring to the high price of products generally (Ecuador has experienced some of highest inflation in Latin America). One of the main costs incurred was that of the Internet connection. The cost of the Internet ranged from US$ 70 to US$ 80 per month for broadband and US$ 20 to US$ 30 for dial-up (plus telephone calls). One hotelier (EM10) paid US$ 250 per month for a cable connection, which allowed the business to provide wireless access to guests within the hotel. The owner of ES1 explained that the cost associated with telephone calls was very high and pointed out that telephone calls in Ecuador are relatively more expensive than other places in the world. In the case of ER11 the cost of telephone calls was one reason for moving away from dial-up. Figure 31 displays the monthly cost of an Internet connection. It shows clearly that most STEs paid over US$ 70 per month.

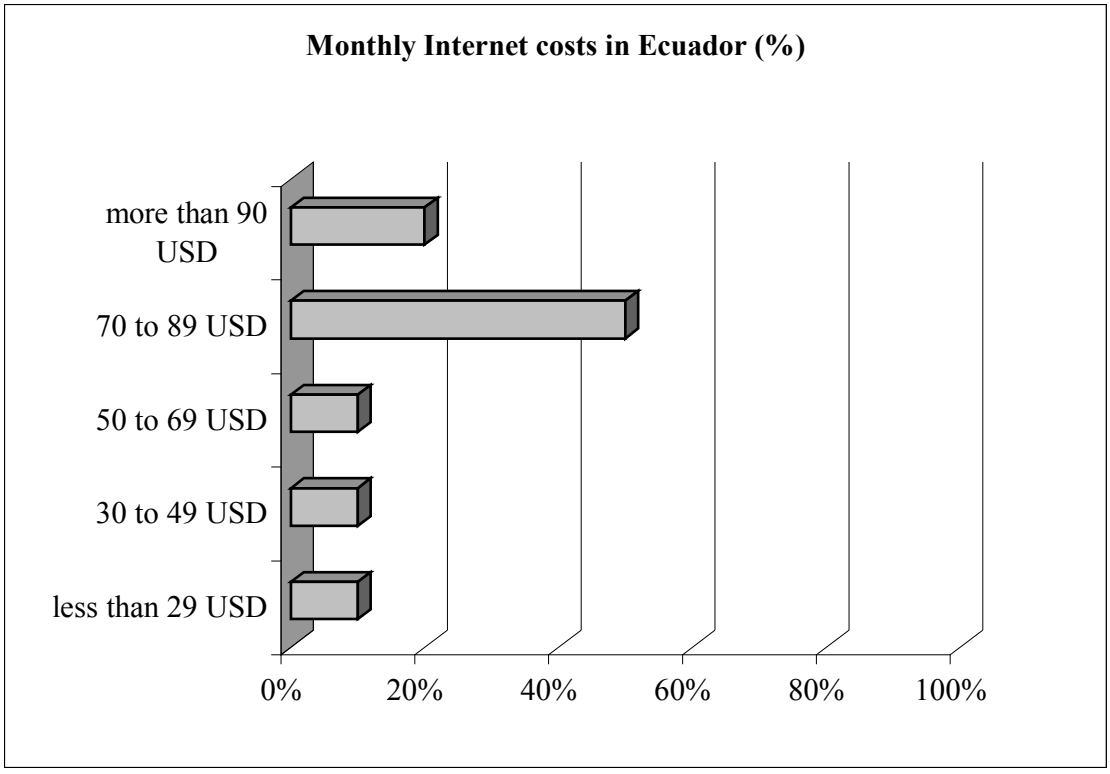

Figure 31: Ecuadorian monthly cost of Internet connection. Includes broadband and dial-up (does not include dial-up call charges)

Concerning the use of external professional services, the owner of EM8 complained that the business had paid too much for the website (US$ 3,000) and the owner was not satisfied with the finished product. Furthermore, the owner lamented that each change/update cost US$ 500 and a further US$ 500 for changes in English. The high costs of external expertise may help to explain why many STEs rarely paid for outside expertise. It also suggests that while cost may not have been a barrier to e-commerce, it certainly influenced what STEs could do.

Website hosting was also expensive. One participant (ER2) commented that it paid US$ 120 per month for website hosting (in Ecuador). This is extremely high considering that the cost of hosting a website in the USA can be as low as US$ 10 a month as underscored by the case of ES9. Although hosting was expensive in some cases, it was not a major inhibiting factor. Computer costs were also high (EM8). The owner of (EM8) commented that clones (PC replicates) cost approximately US$ 500-800 and PC's and notebooks over US$ 1,800 (again, comparatively more expensive than developed nations). The owner of (EM3) stated that when he first purchased a PC it cost US$ 2,000 dollars (the interviewee believed the reason for this was tax), however the price had reduced to about US$ 400. He continued to say that even though ICT equipment was expensive it was necessary because it reduced costs significantly. Along these lines, another participant (EM5) also paid a high price (US$ 1200), for his first PC. The owner also claimed that everything was comparatively expensive in Ecuador (the interviewee suggested that this was because of the recent dollarisation). The owner of EM6 explained that cost was not a problem, although the interviewee

believed that the cost of equipment was much higher than in the USA. The interviewee continued to say that maybe the cost of e-commerce would be an issue for new businesses, rather than established ones.

Overall, amongst the Ecuadorian STEs it can be stated that while the cost involved with e-commerce adoption did not inhibit e-commerce adoption, there is again evidence to suggest that cost influences the types of activities that can be performed (and thus can be considered an e-readiness factor). At the same time, while the costs are high it was asserted that adopting e-commerce is more efficient, less time consuming and can reduce other costs (EM7, EM4, ER11 & ES12).

Like Malaysian enterprises, a number of strategies were adopted to circumvent some of the cost associated with adopting e-commerce. Some techniques that were employed to keep costs down were:

- Using friends or family for IT assistance, advice, and website development, or performing these tasks internally (rather than paying for professional assistance) (ER2, EM3, EM4, EM7, EM5, ES9 & ER11).
- Hosting a website with a free hosting service (at least until benefits materialised – then moving onto paid hosting), rather than paying for a hosting service (ES9).
- All participants used simple, low cost online activities such as email and basic web publishing that are inexpensive and require very little maintenance.
- Hosting a website in another country where the cost of hosting is less (ES9).
- Using the brand of third-party tourism websites (such as online intermediaries and tourism portals), and using the resources of these websites such as marketing power and booking engines.
- Sharing resources with other tourism enterprises. For instance, an Ecuadorian lodge/tour (EM8) operator collaborated with other similar tourism operators to develop a superior website promoting eco-lodges in Ecuador. By pooling their resources they were able to compete more aggressively, and promote themselves on a level that they could not afford through their individual websites (this is described in more detail in the discussion of collaborations).

Summary of Financial Resources

Based on the discourse provided on this e-readiness factor, there is sufficient evidence to suggest that financial resources are an e-readiness factor. There is an argument however against this being a major inhibitor (however, one limitation in claiming this is the absence of 'offline' tourism operators). Along these lines, authors suggest that financial concerns are not a leading factor and that enterprises find ways to keep costs down (Wresch 2003; Rizk 2006). In other words, in this study, the cost involved in the initial adoption of e-commerce does not appear to be an inhibiting factor, however it is certainly a decisive factor in relation to the *level* of e-commerce sophistication. This suggests that for some offline STEs cost may be a major concern. The influence of this factor may help to explain the simple level of e-commerce use undertaken by the STEs. In support of this, two experts in Phase One suggested that STEs rarely employ consultants and IT experts because of the cost involved. For some STEs, it was observed that cost was not

an issue, and that in fact, adopting e-commerce could drive other costs down. Based on this, it could perhaps be argued that this factor could be an adoption driver.

The trade off between the financial burden and adoption may also be related to the fact that enterprises recognised the potential benefits. A link also emerged between owner/manager readiness and how the cost associated with e-commerce impacted the enterprise. A number of different strategies were employed by STEs to attenuate the financial burden of adopting e-commerce. Interestingly, many of these strategies were similar amongst the two sets of STEs. This suggests that these strategies can be applied by other resource poor STEs in developing countries. Taking into consideration these strategies, one can assert that the financial burden that Internet adoption presents can be brought down in various simple ways. This indicates that a large amount of financial resources is not necessarily required to develop an online presence and is encouraging for STEs in countries where the cost of ICTs presents a barrier.

Employees

This factor concerns the skill level of the employees within the business. It refers to technical knowledge (such as how to use the Internet) and knowledge to do with dealing with customers online. In this section, some discussion is also given concerning hiring skilled employees in the local workforce.

Malaysia

In Malaysia employee skills presented an issue in a number of cases (MM10, MR5 & MR11). Typically where this wasn't the case it was because owner/managers were took care of the e-commerce side of the business themselves, which allowed less time to be devoted to the day to day operation. Two owners (MR5 & MR2) explained that if they are away from the office then there was no one available or able to reply to emails. Along these lines, a lodge owner (MM13) performed all the online tasks even when away from work (on vacation). A family run business (MR3) explained that they all check email (a married couple and their son). When any of them reply to an email it was CC'ed to all three. That way if one person was unavailable another can reply. Another rural family enterprise (MR4) suggested it was not a problem because the owner or his wife could take care of the Internet side of things. One participant (MM12) was in the process of training an employee to handle the online side of the job, while another (MM1) trained staff when necessary.

One rural enterprise (MR11) found it difficult to find employees locally that were able to handle the Internet component of the job, such as corresponding with other tourism entities and customers and handling online bookings. Fluency in English language was a minor issue (although this is likely to be more of an issue in countries where English language penetration is low). The main issue was finding employees with Internet know-how. It was explained by the owner of one remote lodge (MR11) that most young people left the area to find work in cities. In a reversal of fortunes the owner of MR11 once hired an employee with good Internet skills, but no customer service skills. Two participants (MM12 & MM8) explained that it was relatively easy to find employees with the necessary Internet skills and English proficiency to match in Kota Kinabalu (the major city in Sabah). Only one participant (MM10) in Kota Kinabalu experienced trouble hiring skilled employees. Two participants (MS6 & MS7), that were located

out of Kota Kinabalu, did not have any problems finding employees, while another (MM14) in Tawau (a small industrial city on the border with Indonesia) suggested it was also not an issue.

Ecuador

Amongst the Ecuadorian STEs, the lack of skilled employees was a concern. However, unlike Malaysia, this was not isolated to just Internet proficiency. The issue was finding employees who could manage both the Internet and the English language component of the job (English language penetration is much lower in Ecuador). This was a concern for six enterprises (EM4, EM10, ES1, ER2, EM8 & ER11), and it was not isolated to rural enterprises where traditionally this phenomenon is more acute. The problem of skilled employees (with English language skills) was not a factor that gained attention in Phase One of the study.

Only two enterprises (EM3 & EM7), both of which were both located in Quito, had no difficulty finding knowledgeable employees (with English language and Internet skills). Despite the small population of Puerto Ayora ER2 encountered no real problem with finding people with all the necessary Internet skills (because it attracts long term stay international visitors that stay to work). However, there was a problem finding people with the necessary Internet skills with the English proficiency to match. A metropolitan enterprise (EM10), explained that it was difficult to find someone to take care of the Internet related component of the job. The issue in this case was that it was expensive to pay someone that could perform Internet tasks as well as communicate well in English (this is another example of how the cost involved with e-commerce can impact the business).

In the case of ER11, it was difficult to find locals who could manage the Internet component of the job. The owner explained that she had '*four reliable young teenage girls that can cook and look after the rooms*', however, *'if I train them up on the Internet side of things there is no point because as soon as they hit 19-20 they get married and have children'*. For this reason, the owners hired internationals (usually travellers who want to stay in one location for an extended period of time) to manage the operation of the business.

Similarly, the owners of ES1 (located in the small town of Otavalo) found it difficult to find knowledgeable staff. The owner commented that she was training a receptionist to perform minor online tasks because the owners planned to return to Holland (for a visit) and wanted to make sure that the receptionist could handle the job. The interviewee added she would help the receptionist out (via the Internet whilst away). At the same time, the interviewee was careful that the receptionist did not become to proficient in English and develop good Internet skills otherwise she may leave for a job elsewhere. The suggestion was that in Otavalo there were not many people that speak English.

For EM4 (a metropolitan enterprise) it was difficult for the owner to find people with both the language and Internet skills. Furthermore, the owner also complained that most people are unreliable. As a result, he did '*everything*' even checking to make sure that the emails sent by employees were correct. Even when away he looked after everything and remarked that *'employees have a lack of love for work'*.

The owner of ES12 commented that she encourages employees to learn: *'we always stimulate employees to improve their skills and we help them also with this in time and economically'…..'we also have field*

workers such as cooks, drivers etc. For them it is not necessary they manage a computer but if they show interest, we stimulate and help them'.

Finally, four enterprises (EM5, ES9, EM6 & ES12) have not needed to worry about this issue as they take care of the online side of the business themselves and have never been in the position of needing to hire staff (for dealing with the e-commerce component of the job). In fact, one of these (ES9) closed when the owner was away.

Summary of Employees

The lack of skilled employees in this study presents one of the most crucial internal e-readiness factors and again may help to explain why the STEs have not progressed past the use of simple e-commerce activities. Lefebvre and Lefebvre (2002) posit that the shortage of skilled labor is the most serious issue in developing countries. More recently, in a study of SMEs in the Egyptian textile industry Rizk (2006) found that unqualified employees was the biggest barrier to implementing ICTs. Along these lines, an expert in Phase One pointed out that '*the current skill base of employees might be considered to be important in enabling small business readiness'.*

The problem appears to be multi-dimensional. Within the business, some STEs were without skilled employees. This resulted in some owner/managers taking care of the Internet component of running the business, and found that they were drawn away from the daily operation. Even where employees did manage some Internet related tasks it appears as though some were not skilled. The issue became more complex because some participants had difficulty locating skilled reliable people in the local area as well as people with working knowledge of English (particularly in Ecuador). There was also the concern that hiring skilled employees was costly – another example of the impact of how the cost of e-commerce affects the business. The issue of skilled employees with English language skills was an unexpected problem, as little attention has been given to this issue in the small business/ICT literature and in Phase One of the study. Jennex et al. (2004) highlighted that skilled employees or 'people factors' involves knowledgeable workers that can also understand the culture and language of the client. This is particularly an issue in tourism, especially because STEs must deal with customers of different nationalities. This issue was more apparent in Ecuador where English language penetration is lower. The combination of technical skills and language skills poses a formidable obstacle for STEs in developing countries.

This factor is particularly relevant in rural areas where they have a limited pool of resources. It was common for owner/managers to be responsible for the online side of the business even when they were away. This suggests that it is particularly important that owner/managers consider the availability of skilled employees when making decisions about e-commerce. Otherwise, owner/managers may find themselves drawn away from the daily operation of the business. Unlike the issue of the cost of e-commerce, where enterprises applied several solutions, the only way to reduce the impact of a lack of employee resources was for owner/managers to take care of the online tasks. Some STEs provided training. Although there was the suggestion that once trained they may leave for a better position.

The issue of a lack of skilled employees may also be linked with the inherent characteristics of STEs. For instance, it was observed in the literature review that some of the development concerns of SMTEs in the APEC region are (Gammack et al. 2004):

- There is a lack of a trained and professional workforce.
- There is a lack of technology and e-commerce skills.

As the matter of skilled employees was more acute in Ecuador, the reader is reminded that Busch (1989) in his description of the business environment in Ecuador pointed out:

- Ecuador lacks a large number of educated and trained personnel.
- Many small business owners have apparently reached the conclusion that non-family members cannot be trusted and relied upon to follow directions.

Overall, the evidence from the data collection suggests that owner/managers need to consider: the skill level of existing employees and their knowledge of English, who will take care of the Internet component of the job (if it will be the owner/manager, then they may be drawn away from the day-to-day running of the business), and the potential to gain access to skilled employees in the surrounding area.

Existing IT Infrastructure

This factor refers to the existing IT infrastructure and its ability to accommodate e-commerce. Internet adoption usually involves some type of integration with the existing internal technology infrastructure within the business. This factor is separate from the macro level telecommunications infrastructure (although related) because here only the internal IT infrastructure is examined.

Malaysia

Although Internet adoption usually involves some type of integration with the IT infrastructure within the business, amongst the Malaysian STEs there was little evidence to suggest that this was a concern for any STEs, or that the nature of the internal IT infrastructure is related to e-readiness.

Internal IT infrastructure was not an issue in the case of the four STEs from Bario (MR2, MR3, MR4 & MR5) as they all accessed the Internet from the telecentre (although this had implications for the STEs such as the distance and time required to travel to the telecentre, having to schedule Internet use around opening times, and the hourly cost). Two of the participants (MR3 & MR4) had a computer in their lodges for personal use and basic record keeping. There is no running electricity in Bario (amazingly there are power lines, but a 13 million dollar plan to generate hydro-electricity failed in the late 1990s). Most homes have diesel operated generators (MR2, MR4 & MR5) or solar power (MR3). In the case of MR3, the lodge uses solar power to differentiate itself from other lodges and provide movie entertainment as well as electricity options for large groups (such as documentary teams) that often stay at the lodge.

Two STEs (MM1 & MS6) had between two and four networked PCs in their offices, but this was not an issue to set up and maintain (they both used friends or family for technical assistance). As observed, some STEs (MM8, MM12, MR11 & MM14) experienced problems with Internet connectivity and one (MR11)

often drove 20km to the nearest town to access the Internet from an Internet café. Three participants (MM14, MM8 & MM12) complained that broadband connection would drop out between 8am to 10am and 4pm to 6pm. This was because more and more people were using the Internet and this was clogging up the bandwidth. '*Initially it was OK [a few years ago], however, now since it has become more and more used the connection has become intermittent. For instance, between 8 to 10am the connection is almost always down and between 4 and 5pm the connection is almost always down. The rest of the time depends*' (MM14). Nevertheless, while connectivity was seen as an issue, all STEs had grown quite accustomed to working around it. MM14 had a backup ISDN connection that it was used when the broadband connection was down, but found this to be costly and used it only sparingly. These examples are all related to the telecommunications infrastructure.

Evidence from the Malaysian interview data suggests that internal IT infrastructure is not a pertinent e-readiness factor (infrastructural barriers such as connectivity and power were discussed in the macro environment). The reason for this is that all enterprises conducted basic online activities and all that was needed was a computer and access to the Internet. In fact, in almost one quarter of cases the Internet was accessed from a public Internet access point on a permanent or occasional basis.

Ecuador

In Ecuador there was little evidence to suggest that the existing IT infrastructure is related to e-readiness. In two cases (ER2 & EM5), a combination of Internet access from home/work and Internet café (or other public Internet access point) was used. In the case of ER2 it was because the internal Internet connection was poor internally. For EM5 it was because the owner used the Internet from home (in a semi-rural area). However, when the owner was at work and needed to use the Internet he went to a nearby Internet café. The owner continued to say that he tried to limit his use of the Internet cafés because they are expensive.

Amongst the Ecuadorian STEs only two (ER11 & EM5) had encountered some type of problem with their internal IT infrastructure. One participant (EM5) had some bad experiences with viruses, which caused problems on the owner's home PC. In the case of ER11 it was more complicated. The lodge was located deep in the Andes and the owners were forced to purchase a satellite-dish to access the Internet because of the inadequate telecommunications infrastructure. In this case the owners had to make do with the limited infrastructure that they had. For supplies, they needed drive to the nearest town (four hours by jeep or longer by bus) and the owners are obviously not able to gain access to timely outside assistance if required.

The remainder of the enterprises had no issues with the internal IT infrastructure (most of the infrastructure concerns were related to the macro environment). This is because the internal IT infrastructure was typically simple. Along these lines, ES9 commented *'not an issue, just a PC and Internet'*. Likewise, when the owner of EM5 started the business he immediately purchased a PC. The most complicated infrastructure was four networked computers (EM7) and incorporating the Internet into the business was not an issue.

Summary of Internal IT Infrastructure

Although Internet adoption often involves some type of integration with the existing internal IT infrastructure, there was little evidence to suggest that this was a concern for any of the participants or that the nature of the current IT infrastructure is related to e-readiness. As observed, there were some issues with the power source and connectivity. However, these were generally problems of the greater enabling environment. This suggests that an assessment of the current IT infrastructure is not a relevant determinant of e-readiness. The internal IT infrastructure may be more applicable as a readiness factor to other tourism entities such as travel agents where more sophisticated Internet activities are taking place or in larger organisations underpinned by cumbersome IT infrastructures.

Socio-cultural Factors

Socio-cultural factors refer to issues such as the attitude towards e-commerce (for instance, technophobia and computer anxiety can inhibit the adoption of e-commerce) that exist within the business and business culture (some businesses prefer to do business face-to-face). It also includes issues such as content related barriers and issues to do with censorship and access to information.

Malaysia

Amongst the Malaysian STEs it was generally accepted that the Internet was the norm in tourism and did not present a socio-cultural issue within the business. No enterprise reported any resistance to change from within the enterprise. A possible explanation for the lack of any social-cultural concerns was that the majority of enterprises had been using the Internet over five years and the management had supported its use (and managed the Internet component of the business in most cases). In one case a participant (MR11) was concerned with the level of government censorship in Malaysia and for this reason decided to use an overseas website hosting service. The only other comment concerning socio-cultural issues came from the owner of MS9 on his belief that technology should slow down and there was no rush in going forward. At the same time, the participant was one of the early e-commerce adopters (and had been using the Internet as part of his business since 1994). The owner of MR5 commented that *'the Internet is good and bad'* referring to the fact that he often had to walk 45 minutes into the village centre to check emails at the local telecentre and sometimes found that the telecentre was closed (meaning that sometimes it was a waste of time). Palmer (2000) also suggests that the amount of time in gaining access to the Internet posses a problem.

Overall, the experience of the data collection suggests that this is not a factor that contributes to e-readiness. Although there have been some negative issues arising from Internet use in Malaysia (Rathore & Alhabshi 2005), the overwhelming consensus was that using the Internet was the norm amongst tourism enterprises and increasingly amongst society generally (a reflection of the ICT growth in Malaysia). Despite the perceptions that in developing countries people prefer face-to-face contact, this was not the case in this study. In fact, one participant (MM1) found that even though traditionally people do business face-to-face, people also like to use email *'it is cheaper, faster and removes geographical barriers'*. There was the indication that local customers prefer to use the telephone to interact with STEs, this will be

explored more in a later section. Furthermore, one participant put forth that some small lodges in Kota Kinabalu do not use the Internet because they operate in the informal sector and cater to illegal immigrants.

Ecuador

Amongst the Ecuadorian STEs there was no mention of any socio-cultural issues surrounding the adoption and use of e-commerce. The general view was also that most tourism operators are online. The owner of ES12 made a comment very similar to that made by a Malaysian participant regarding the impact of e-commerce '*we are quiet people and nature lovers'...'Internet has to go fast, quicker, more advanced changes very quick, is stressful'. 'We prefer to have things under control, not to grow very fast, give good service and high success rate. I think Internet tends to be successful very fast, fast sells, not personalised, you know what I mean?'.* The owner continued to say *'We try to avoid negative impacts such as too many mails a day, no time for answering, un-personalised, people in the office stressed and overworked'.* This was not a negative reflection of the Internet, simply a comment on why the owner did not allow it to play a larger role in their business. At the same time, this participant only received bookings for the tour side of the business via email and rarely spoke to customers over the telephone or face-to-face before a booking was made.

The owner of ES1 provided some insight into why many other STEs are not online in Otavalo '*this is probably because they are run by locals and do not see the value in the Internet'* and that *'their English may not be sufficient to allow them to communicate with customers and other entities online'.* This suggests that socio-cultural factors may be an issue amongst non-adopters.

Summary of Socio-Cultural Factors

The literature suggests that socio-cultural factors can impact e-commerce adoption (Hawk 2004; Salman 2004). In fact, Purcell et al. (2004) found that socio-cultural factors (such as paedophilia, pornography, culture distortion, and decrease in productivity through online surfing) were the leading concerns for small businesses in Samoa. However, the qualitative data suggests that there is little evidence to suggest this was the case amongst the participants in this study. This may be linked to the industry – it was view that the use of the Internet was commonplace in tourism. It may also be linked to the fact that the owner/managers were behind the drive to adopt e-commerce and were the ones mostly dealing with the e-commerce component of the business. Some enterprises shared the notion that technology was moving rapidly and that it may affect their lifestyle (MS9 & ES12). However, these were general reflections and in both of these cases the enterprises were heavily reliant on the Internet. It was observed in the literature review that many entrepreneurs, particularly sole proprietors and families are drawn to tourism for lifestyle reasons (Morrison & King 2003).

The lack of impact of socio-cultural factors may also be a result of the selection bias that may have occurred in this study. The bias lies in the possibility that only owner/managers that were 'ICT enthusiasts', comfortable with ICTs, at ease with communicating in English, and had a positive view of ICTs participated in the study. Nevertheless, some participants speculated that some STEs have not adopted e-commerce *'because they [the owners] are too old to learn and because of language barriers'* (MR3). There was even the suggestion that this was because other small hotels and lodges cater to illegal immigrants (in

the case of STEs in Sabah, Malaysia). In the discussion of employee skills it was also observed that this issue extends to hiring and training employees – ER11 did not train teenage females e-commerce skills because once they reach the age of 19-20 they get married and have kids. Therefore, even amongst the discussions with online STEs a broad range of socio-cultural factors have been identified, and that these factors exist within and externally of the business. This suggests that socio-cultural factors may be a reason for the inertia amongst some STEs not adopting the Internet.

Manager Characteristics

Manager's characteristic's refers to management's awareness, knowledge and perceived value, attitude, and knowledge of e-commerce. These factors have all been grouped under management characteristics because the decision-making in small business is typically made by the owner/manager – who is the person with overall responsibility for the business.

Malaysia

Amongst the Malaysian STEs this factor stood out as the most relevant determinant of e-readiness. During the course of the interviews it became apparent that owner/managers were aware of the advantages and predominance of the Internet in tourism. At the same time, owner/managers did not accept the limitations in their environments. For instance, owner/managers found ways to overcome financial barriers and learnt to deal with infrastructure constraints. The importance of the role that owner/manager plays is also apparent because despite all the hurdles faced by enterprises in all but one case (MS7) participants have experienced an increase in customers. It is also demonstrated by the fact that some owner/managers had no prior e-commerce experience (MR2, MR4, MR5 & MS7). However, they saw it as an upcoming trend and recognised the value of the Internet and thus decided to build their knowledge of how to use it to develop their enterprise. The owner of MS7 (the only non-rural enterprise not to have prior Internet skills) recognised that he needed to build his skills because of the predominance of the Internet in tourism. He also acknowledged that even at the time of the interview he did not possess very good computer and Internet knowledge and admitted that he needed to address this.

The following example set in a village located in the highlands of Sarawak in East Malaysia (where four lodges participated), illustrates the importance of the owner/manager in adoption. Prior to the introduction of the telecentre, only one participant (MR3) out of the four had used the Internet before. However, even without prior Internet experience the other three participants (MR2, MR4 & MR5) recognised that the Internet was playing a major role in tourism, and thus decided to build their skills using a mixture of local training and self-capacity building. One owner (MR5) reflected that learning to use the Internet and computers was quite a shock (because of his unfamiliarity of technology), and although the owner admittedly was still learning he was confident enough to handle email correspondence with customers.

The owner of MR2 taught himself how to use the Internet once it was introduced into the area (the telecentre in Bario). Nevertheless, he had become quite aware of the benefits of using the Internet and would like to use it to attract more tourists. He also suggested that he was interested in developing a website but was unsure how to go about it. Another lodge owner from Bario (MR4) had used a computer previously for documentation and once the Internet was introduced his wife developed her skills and he

developed them to a lesser extent. While the owners of MR3 were interested in building a website, however, at the same time they acknowledged there was a limitation to the number of visitors that could be attracted to the area (as it is very remote). Therefore, the owners decided the investment into a website was not necessarily able to yield any return, unless they were able to host the website for free and have it built by a friend or family member. As a result of adopting the Internet as a marketing and communication tool, all four participants were able to increase the number of customers they received. Also, this participant (MR5) was able to limit his reliance on travel agents for customers. This example demonstrates that even with limited access (through a telecentre), and with no prior knowledge or skills that entrepreneurs exhibit awareness and readiness to take the necessary steps to build capacity.

Ecuador

Amongst the Ecuadorian participants there was a relationship between the role of the owner/manager and adoption. It was evident from the interviews that owner/managers were 'ready', as despite the acute limitations and hurdles imposed by the environments in which the enterprises operated, they were all able to derive some benefit from Internet adoption. The important finding is that 'ready' or aware managers see the Internet as a major part of tourism. At the same time, owner/managers are able to circumvent certain obstacles. In the case of Ecuador, the main obstacles were the lack of government support, financial constraints, lack of skilled employees, and poor infrastructure. In fact, a lodge (ER11) that operated in the remotest of regions and endured many ICT obstacles was able to enjoy online bookings of up to 70 percent. In this case, the owners had very low computer and Internet skill levels, yet even so once they introduced the Internet '*things evolved rapidly*'. Likewise, ever since the owner of ES1 took over a hotel from its previous owner the business has gone from virtually no online bookings to 60 percent in less than three years. A similar experience was shared by another rural participant (ER2) that was able boost online sales from 20 percent to up to 40 percent of overall sales in just over one year despite the participant having no prior Internet skills.

Most owner/managers had developed their skills on their own. For instance, when the owner of EM5 started the business, he immediately bought a computer and then took steps to learn to how to use it. Furthermore, all owner/managers were quite enthusiastic about the benefits of the Internet and at the same time were aware of the environmental limitations.

Summary of Manager Characteristics

In this study, of all the e-readiness factors that were examined in the data collection phase, the role of the owner/manager stands out as the most relevant determinant of e-readiness. This is in line with other studies that show that adoption is heavily reliant on the owner/manager's acceptance and knowledge of the technology (Iacovou, Benbasat & Dexter 1995; Cloete, Courtney & Fintz 2002; Seyal, Rahim & Rahman 2000).

The name of the factor 'manager characteristics' has been re-labelled to 'owner/manager readiness' to clearly specify what is indicated. Owner/manager readiness refers to the bundle of the characteristics of an owner/manager such as their awareness, innovativeness, and perceptions of e-commerce, as well as their overall attitude towards it. Some examples of awareness and innovativeness have been given in the

discussion so far, as per Wresch (2002). Owner/manager readiness is also demonstrated by the fact that some owner/managers had no prior experience with the Internet; however, they saw it as an upcoming trend and decided to build their knowledge accordingly. Owner/managers also seemed quite enthusiastic about using the Internet to develop their enterprises. In fact, in all but one case participants have used the Internet to increase customers. Therefore based on the discussion the owner/manager readiness becomes an important e-readiness factor. In fact, the whole notion of 'readiness' may depend predominately on the owner/managers' readiness.

Again, it is important to point out that only STEs that were currently using the e-commerce were selected to participate in the study and that there is a possibility for a selection bias in this study. This bias has been mentioned on more than one occasion.

7.2.4 Summary of Organisational Readiness

This section discussed organisational readiness in light of the data gathered in Malaysia and Ecuador. It was observed that financial resources, employee skills, and owner/manager readiness emerged as the most pertinent factors. In fact, owner/manager readiness emerged as a factor that determines how an STE contends with external and internal forces. Financial resources and employee skills also emerged as important factors. These factors may help to explain why STEs appear to be making only modest use of e-commerce, as it was observed that they appeared to be resource poor in terms of financial resources and skilled employees. Socio-cultural factors may be more relevant amongst offline STEs (this study did not take into consideration the perspectives of offline STEs). Some participants speculated that some STEs have not adopted e-commerce because some owners were *'too old'* to learn to use the technology or because of language barriers. There was also the indication that it may be because other small lodges cater to illegal immigrants (in the case of STEs in Sabah, Malaysia). Furthermore, one rural participant put forth that training locals (specifically young females) to manage the Internet side of the business is not worth it because they get married and have children once they reach the age of 19-20. This suggests that a range of socio-cultural factors influence e-commerce adoption and use and that the issue is wider than the organisational sphere. This was a position of an expert in Phase One '*socio-cultural issues which you list under internal resources is also and external constraint'*.

The internal IT infrastructure factor is likely to be more relevant amongst larger enterprises and enterprises with more cumbersome IT infrastructures. This is promising because it suggests that STEs do not need to invest in complicated IT structures and that simply access to a computer with Internet is mostly all that is needed.

There were some similarities between the two groups of STEs in this contextual area, particularly with how STEs mitigated the impact of the cost of e-commerce and the importance in the role of the owner/manager. The issue of skilled employees relating to English language skills in addition to ICT skills was not expected, especially after the Malaysian set of data-collection (where it was not an issue). This suggests that this may be an issue in other countries where English language penetration is low.

7.2.5 Contextual area three: Market Readiness

The market readiness contextual area refers to the factors at the industry level that may influence or affect the adoption of e-commerce. Four factors are discussed in the market readiness contextual area in light of the data gathered. They are customer readiness, competitive pressure, supplier/partners and the collaborations with other STEs.

Customer Readiness

Customer readiness has two dimensions. The first is the customer's expectation of the business to be online. The second is the ability of customers to actually engage in e-commerce. It has been observed on many occasions that customers (predominately from developed countries) frequently use the Internet to plan and book tourism purchases.

Malaysia

The main source of customers for the Malaysian STEs was from developed countries (Europeans, Japanese, Australians, and North Americans). In fact, this was one of the main reasons for adopting e-commerce – to provide information to and communicate with foreign markets. It has been observed on a number of occasions in this thesis that tourism customers increasingly prefer to use the Internet to research, plan, and book tourism purchases. This was a trend not lost on the owner/managers. This further supports a link between owner/manager readiness and adoption. That is, owner/managers were aware of customer behaviour and were prepared to take action to fulfil customer needs.

Of the enterprises that could reveal the amount of online reservations they received (some were not able to do so), the highest was 90 percent. This was almost exclusively through email or via a booking form (which simply sent the information via an email to the STE) and represents a relatively high proportion of bookings. Table 32 displays the percentages of online reservations for the five enterprises that were able to disclose this information. For MS9 local customers represented 50 percent of the customer base. The owner of MM13 commented that locals make up a very small portion of the customer base and that they almost always use the telephone to place a booking or make an enquiry. She suggested that foreign customers use email more frequently mainly because they can write better than speak English and it is far cheaper than a telephone call.

Table 32: Malaysian percentage of online customers

STE	Percentage of online customers
MM8	90 %
MM10 & MR11	80 %
MM14 & MM6	60 to 70 %

In Table 33 MM10 is seen to receive 80 percent online bookings. However, this is misleading. The owner explained that two years ago the ratio was 50 percent online bookings and 50 percent 'walk-ins'. What has happened in the last two years, however, is that there has been an explosion in new small lodges opening up around Kota Kinabalu. To boost vacancies these new lodges have agents working at the airport and bus depots looking for newly arrived tourists to persuade them to come to their lodge. This impacted on the number of 'walk-in' customers that MM10 received. In other words, MM10's online bookings have not increased, rather its ratio of 'walk-ins' have decreased, meaning that online bookings represent a larger share of the bookings. This example is another illustration of the highly competitive nature of tourism.

Ecuador

The customer base for the Ecuadorian STEs was very similar to the Malaysian STEs (North Americans, Europeans, Australians, and Japanese, although the USA was by far the biggest market). This may help to explain the high percentages of online bookings – these countries have the highest Internet penetrations in the world. Like the Malaysian STEs there was a link between owner/managers being aware of their customer's Internet behaviour and adoption.

Concerning the local market, a participant (EM8) pointed out that local customers have increased from five percent to 30 percent over the last few years and made a point of mentioning that '*Ecuadorians only use the Internet to gather more information*'. This was because they prefer to use the telephone to make a booking and hear a voice so they can barter for the price. Supporting this, the owner of EM3 remarked that locals prefer to use the telephone rather than the Internet and explained that the local tourism market was small.

ES12 received the greatest proportion of online reservations (100 percent for its tour business). The owner remarked '*we have no phone calls from clients that want to book. If they book, they send a mail*'. EM4 followed with 90 percent. Eight enterprises were able to disclose the amount of online reservations they received (displayed in Table 33). Again, bookings were made exclusively through email or via a booking form.

Table 33: Ecuadorian percentage of online customers

STE	Percentage of online customers
ES12	100 % (for the tour business)
EM4	90 %
ER11	70 %
ES1 & EM7	60 %
EM5 & EM6	50 %
ER2	40 %

There was some reference to the currency change and the impact it had on tourism. A participant (EM8) explained that the change in the currency had a huge affect on the tourism market. This was because everything became more expensive and meant that budget travellers stopped coming in large numbers. The

participant continued to say that right after September 11 that the number of tourists decreased. However, the tourism industry bounced back.

There was a link between the type of traveller and the success of the online presence. This became obvious in the case of ES9, a 17th century hacienda in a semi rural area. ES9's customers are mostly people aged over 50 *'who have money to spend'*. Customers pay around US$ 250 per night for a stay in this luxury hacienda. This type of customer prefers to arrange everything through a travel agent. The owner lamented that he would prefer to have these customers book directly through the website (to limit the need for paying commissions). The owner was keen to build on its online presence but was unsure if this would make a difference given that most of its customers do not directly use the website. In most cases, customers are directed to view the website by travel agents, who use it as an online brochure to inform potential customers (this is explored in greater detail in section 7.4). This example is an argument against authors that claim that the Internet may replace traditional travel agents (Tse 2003). Along these lines, Ader, LaFleur and Falcone (2000) cited in Morrison & King (2003) suggested that some tourists still demonstrate a preference for booking through traditional travel agents because of the face-to-face interaction and advice they provide.

Summary of Customer Readiness

It has been observed on a number of occasions that tourism customers prefer to use the Internet to research, plan, and book tourism related purchases (Collins, Buhalis & Peters 2003). This is especially true for customers from developed countries. Customers from these countries represented a large portion of the customer base of the participant STEs and owner/managers understood customers from these countries frequently used the Internet for travel purposes. The similar customer bases amongst STEs may help to explain the similar e-commerce activities performed by the enterprises. The data collection found customer readiness to be one of the main drivers behind e-commerce adoption. This indicates that STEs are more likely to move to e-commerce when owner/managers are aware of changes occurring in their market environment. There was a unique example where customers did not use the website directly, rather they would be pointed to it by a travel agent as a form of online brochure. These customers would also rather book through a travel agent than email the STE directly to make a booking. This suggests that the type of customer plays a role concerning the online strategy of the business. It was also observed that local customers have different needs than international customers. In particular, local customers prefer to use the telephone to make a query or booking. There was the suggestion that this was also so they could barter over the price. This supports comments made by an expert in Phase One on more than one occasion that more attention should be given to the type of customer. The expert suggested that *'a portal is critical to develop on-line transactions with overseas tourists. Or locals may prefer a simple page (information) as many use dial-up and/or public Internet cafes (Vietnam comes to mind here)'*. However, on the whole, local customers represented a small portion of the customer base of the STEs in this study. Customers from countries such as those of Europe and North America (where there are high levels of Internet penetration) were the main source of customers. This indicates that small enterprises are more likely to move to e-commerce when there is a critical mass of customers (Kuwayama 2001). Therefore, it can be posited that customer readiness acts as an adoption driver.

Competitor Pressure

This factor refers to the pressure that is created by other STEs and other tourism enterprises to adopt e-commerce (the pressure arrises from them having adopting e-commerce).

Malaysia

Amongst the Malaysian enterprises it was generally felt that tourism is a competitive industry. The competition came from other tourism enterprises within the country, and more generally other destinations. Nevertheless, although no STE cited any specific example of competitive pressure, the overwhelming consensus amongst the STEs was that the Internet is commonplace in tourism – driven by customer behaviour and tourism entities such as intermediaries that prefer to do business online. Some examples concerning the competitive nature of the tourism industry have been given throughout the data analysis. It was summed up precisely by the owner of (MM14) *'no pressure, all competitors are online, it's just the way of doing things'*.

The owner of MM1 commented that he did not respond at all to competitive pressure. The owner adopted the Internet to provide information to customers and commented that in fact he does not have any competitors in Sibu (this appears to be true, there are very few tour operators in Sibu – it is slightly off the typical tourist route). In one case, a participant (MS6) that had developed a website and used email for more than 12 years, suggested to both his neighbours who are both tourism operators that they develop a website to promote their businesses individually. Although this may increase competition it could also increase visitors to outlying location.

The case of MR11 epitomises the competitive environment. According to the owner the lodge was one of the first small tourism operators to become online in Sarawak. Nevertheless, over the years the owner observed how more and more tourism operators became online *'many are flooding the market'*, making it hard for the business to been found online *'slowly the ration of Internet bookings are dropping because so many competitors are online'*. The owner continued to say '*I am promoting with great difficulty, not enjoying the promotional success of early on, as there is so much competition and so much tourism stuff online. As a result the website is going down hill.'* The owner also told the story of how an overseas-based business that offered tours in Borneo registered a domain name similar to the name of the business. This meant that if someone searched for the name of the MR11 on the Internet, MR11 would not be one of the first items listed.

MM10 is located in Kota Kinabalu where there has been an explosion of new tourism operators, however according to the owner the lodge was one of the first online. Therefore the owner did not consider what others were doing. Now however, there are more and more competitors online and they are all doing the same thing. The owner explained that to begin '*being found on the Internet was an issue.*' Now using a strategy (that was not revealed), the lodge can be listed directly (through its own website) or indirectly (on third-party sites) on every hit on the first page of a typical search engine search for accommodation in Kota Kinabalu. The owner also commented that he frequently sends 'dummy' emails to competitors to gain an understanding of their online customer service. Another participant (MM12) mentioned that there are many new backpacker lodges in town (something like 12 new lodges opened in the last eight months) and

remarked of its competitors '*only some have a website, many of the smaller budget hotels don't want to go online and cater to local budget customers or illegal immigrants'*. This indicates that the type of customer relates to e-commerce adoption. The owner of MM8 complained that there are more and more 'copycat' websites appearing. With bigger budgets the copycat websites are ranked higher on search engines and this makes it difficult for MM8 to compete, especially since the business was not accredited. These examples reaffirm that tourism is a highly competitive industry and suggests that STEs appear to be reacting to other STEs who have adopted e-commerce.

In Bario, despite the large number of lodges (something like ten within a population of 1000 people) there appeared to be little competitiveness amongst tourism operators. There was even a price cap (set by the local community) on all lodges and guides to prevent over competitiveness and regular village meetings to discuss the impact of tourism in the area. There was also some collaboration (or co-opetition) amongst the lodges to ensure that everyone benefits from tourism. Along these lines, the owners of MR3 were not interested in using the Internet to take customers from other lodges. One of the owners commented that they were simply willing to stick to accommodating large groups (such as documentary groups that frequently visit Bario) and using the Internet to market to these specific groups. Similarly the other lodge owners in Bario (MR2, MR4 & MR5) commented that the lodges did not really compete. One owner (MR5) was aware that most other lodges in Bario have a web presence and many STEs in Malaysia have a website, but his business had no real competitor, as the lodge was located 45 minute walk away any other lodge and attracted a niche market.

Ecuador

Amongst the Ecuadorian STEs the general view was that the most tourism operators used the Internet. Three participants (EM7, EM8 & EM6) paid close attention to what their competitors were doing but they agreed that everyone seemed to be doing the same things online. One (EM8) commented she *'pays attention'* but said *'they all pretty much do the same thing*'. One participant (EM6) responded curiously when asked about online payments '*no one is offering that yet, are they'?* This suggests that STEs are concerned with what their competitors are doing. On the other hand, the owner of EM8 was not concerned with local competitors and what they were doing online, rather *'first we compete with other countries and then internally'*. This suggests that competitive nature of tourism goes beyond local boundaries.

The owner of EM4 was of the view that *'that most small tourism enterprises are online and that they operate by grabbing a few tourists each'* referring to the large number of STEs in Quito (it seemed disproportionate to the number of visitors that Ecuador receives). This participant also commented that '*the government should take the initiative and investigate the tourism businesses to make sure they are legitimate and offer the correct services and that their offices are in good order'*. While ES1 viewed itself as an early adopter *'I use the Internet a lot, in fact, it's a large part of my work, but up here in Otavalo I'm still one of the pioneers'*. This participant also suggested that other STEs in the area have not adopted e-commerce because they are operated by Ecuadorians that do not recognise the value of the Internet. Overall, competitor pressure amongst the Ecuadorian STEs seemed to play a role in adoption and like the Malaysian STEs the view was that the Internet has become commonplace.

Summary of Competitive Pressure

The evidence from the data collection overwhelmingly suggests that tourism is a competitive industry and competitive forces play a role in the adoption of e-commerce. This supports the literature that contends that competitive pressure is a driving force (Molla & Licker 2005; Xu, Zhu & Kraemer 2002; Lertwongsatien, Wongpinunwatana & Achakulwisut 2004). Along these lines, a participant in the expert panel suggested that '*early adopters drive the need for e-commerce readiness'*.

A small portion of STEs even monitored regularly what other STEs were doing online. One enterprise (EM8) suggested that all the STEs seem to be doing the same thing online. It was summed up neatly by one participant (MM14) *'no pressure, all competitors are online, it's just the way of doing things'*. However, suggesting that 'it is the way of doing things' indicates that there is pressure to be online. In fact, the widespread adoption of the Internet by tourism entities (such as portal websites, intermediaries, travel agents, DMOs, large tourism enterprises, and SMTEs) has made the Internet into a battlefield with STEs struggling in some cases to be found online.

There were some examples to the contrary. In one case, a participant (MS9) that had developed a website and used email for more than 12 years, suggested to both his neighbours (tourism operators) that they develop a website to promote their businesses. In Bario local competition (and the negative aspects associated with competition) is limited by set prices and a community development approach.

The competitive pressure went beyond local boundaries, in fact on a number of occasions it was mentioned that STEs primarily compete with other destinations (both internal destinations and foreign). This suggests that there is potential for local STEs to collaborate with one another to promote a destination. On the whole the data suggests that competitor pressure is a readiness factor.

Supplier/Partners and Online Tourism Enablers

This factor refers to an investigation of supplier and partner readiness and the pressure they apply to adopt e-commerce. In tourism, intermediaries and other strategic partners in the tourism supply chain place pressure on business to adopt e-commerce because they prefer to do business online to reduce costs (Buhalis & Main 1998; Gupta, Jones & Coleman 2004). Overall, the main online interaction that was taking place was only with tourism related suppliers or strategic partners. In other words, outside of tourism related networks there was little interaction taking place. Most STEs interacted with (non-tourism) entities occurred in the traditional method. For instance, for supplies (food, cleaning materials, technical equipment, tour specific equipment, and so forth) STEs would use traditional markets and informal networks (in fact, in a rural area the owner of a STE where the researcher was staying asked the researcher to walk to another village four hours away to pick up supplies). In Phase One the factor 'online tourism enablers' was added to the framework because experts suggested that the services offered by these entities contribute to e-readiness. However, this section revealed that suppliers/partners and tourism enablers are essentially the same factor. In other words, suppliers/partners and tourism enablers refer to traditional suppliers and strategic partners as well as the online variety (which are also called portals, vortals, eMediaries, cyber-mediaries). From an industry point of view they are the same. In light of this these two factors are discussed together.

Malaysia

Despite the literature that suggests that small enterprises face pressure from suppliers and partners to adopt e-commerce, there was little evidence to suggest this was the case in Malaysia. The owner MR11 experienced no pressure from suppliers to adopt the Internet. In fact, the owner commented that the business was online before most suppliers and tourism intermediaries. A similar experience was shared by MR5. Although this participant commented that since using email more and more online tourism entities contacted him (such as online intermediaries, travel agents and tourism portals). The owner of MS6 explained that email was the main means used to communicate with an intermediary in France, although there was never any pressure to adopt email as a means of communication because it has always been this way. Although, there was no direct influence applied by suppliers and partners, seven enterprises (MR11, MR3, MR4, MR5, MS7, MM10 & MS6) found that once they adopted e-commerce, online tourism intermediaries and tourism portals began to contact with them regarding possible affiliations. In these cases the intermediaries or portals would ask whether the enterprise would like to be listed with them and for some details of the business. The 'readiness' of an STE to interact with these entities is important as they may boost the online presence of a tourism enterprise and even result in bookings. One participant (MS7) contacted an intermediary to promote the business further and this resulted in a small amount of bookings. Another participant was planning on forming an alliance with an online intermediary in the very near future. Some enterprises (MM10 & MR11) even began using the booking engines of tourism intermediary websites. These provided the STE with functionality that they would not have access to otherwise. Nevertheless, there was some concern in dealing with intermediaries because they often asked for a commission or subscription fee (MR11).

Ecuador

In Ecuador no enterprise cited supplier or partner pressure as a reason for adopting the Internet. Nor was it an issue in the planning stage. Enterprises did use email to communicate with suppliers and partners, although this was never forced upon the enterprise. Two participants indicated how much they communicate with suppliers and partners. The owner of EM6 commented that communication with local and overseas intermediaries was about 50 percent by email and 50 percent by telephone and fax. Another participant (ES1) reported that it was mostly by telephone or fax and that there has been no pressure from outside suppliers or partners to change. Similarly the owner of ES9 mostly used email to communicate with intermediaries in Europe, on which he was dependant for customers. This was largely to reduce costs. There appears to be a critical mass to justify using electronic means to communicate. At the same time, other than some interaction with tourism intermediaries/agencies, there was little communication occurring with other businesses (outside of tourism networks).

All enterprises advertised on one or more tourism portals/intermediary websites and communication with these was by email, as this was the preferred communication method of the portal/intermediary. Five enterprises (ER2, EM3, EM4, ES9 & EM5) had increased interest from these entities once they started to use email (which led to increased customer interactions). Like the Malaysian STEs, these alliances were important for promoting the enterprise.

Summary of Supplier/Partner Readiness and Tourism Enablers

STEs in this study did not experience pressure from suppliers and partners to adopt e-commerce. STEs largely obtained supplies through traditional means. However, concerning tourism related interaction, there was frequent use of the Internet to communicate with tourism related suppliers and partners. For instance, email was the main means to communicate with overseas-based tourism intermediaries. Although this was not forced, it appears to be the most cost-effective and efficient means of communication. Other STEs used a mixture of telephone, fax, and email to interact with outside tourism related entities.

Enterprises in this study found that once they adopted email, online tourism intermediaries began to contact them regarding possible affiliations. This may be attributed to the fact that online intermediaries prefer to do business online with enterprises to reduce costs (Buhalis & Main 1998; Gupta, Jones & Coleman 2004). This is a market phenomenon that is not well explored. In most cases, the intermediary would ask whether the enterprise would like to be listed and for some details of the business. In some cases the STE would need to pay for advertising or pay a commission per booking. It suggests that the readiness of (and access to) tourism players such as online intermediaries is an important factor. Along these lines, it was commented by two experts in Phase One that STEs consider membership to a tourism portal as a way of overcoming low e-readiness because these services are a way of sharing infrastructure and possibly exploiting the Transaction Space. An expert also posited that the use of a portal *'can also reflect important local or regional relationships between tourism groups, which inturn may promote new cooperation and alliances'*.

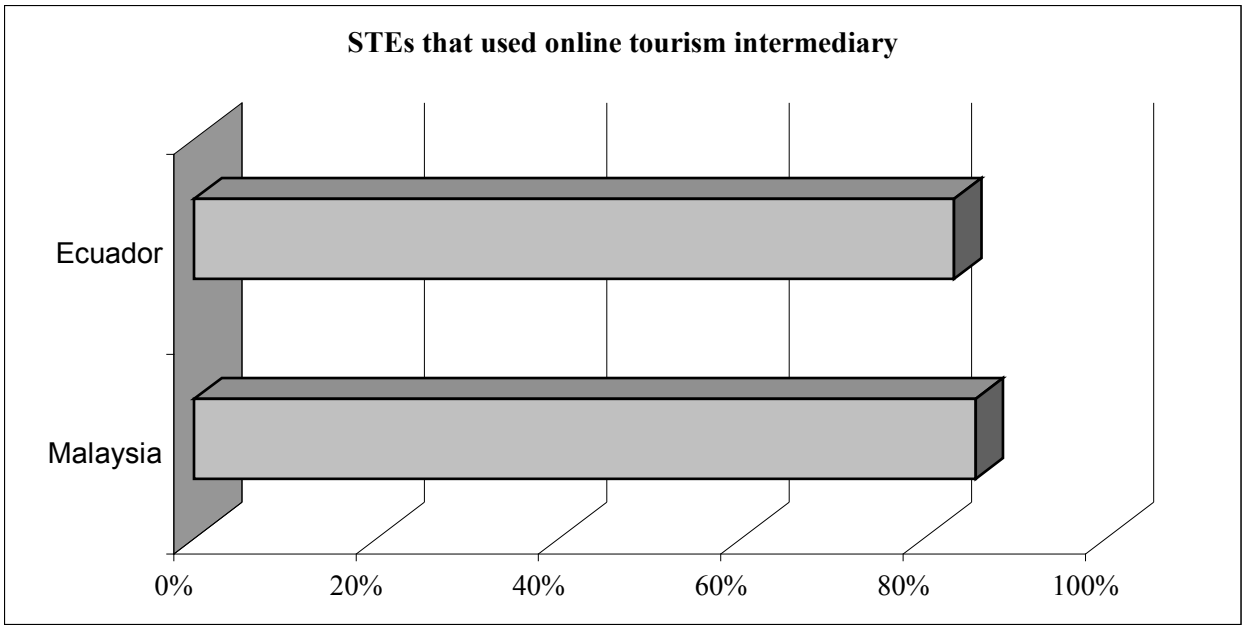

Figure 32: Proportion of enterprises that use portal/intermediaries

Figure 32 shows that the proportion of enterprises that used online intermediaries for promotion. There is a significant level of resemblance between the two very different groups of STEs. It appears as though despite the relative different levels of e-readiness between the two countries that there are some similarities and some common use of e-commerce. Overall, based on an analysis of the interview data supplier and partner readiness can be described as a relevant e-readiness factor if it is renamed to reflect that it refers to *tourism related suppliers and strategic partners*. The addition of the factor *tourism enablers* appears to have been inappropriate. Suppliers and partners refer to travel agencies and intermediaries or other partnership with other tourism entities (including tourism enablers). These can be classified according to business type, Internet or offline based, inter-organisational configuration, degrees of formality, and the extent of the intensity of the co-operative relationships (Morrison, Lynch & Johns 2004) and include horizontal and vertical relationships. These are also referred to as tourism networks (Morrison, Lynch & Johns 2004; Braun 2005). The qualitative data also suggests that STEs that do not adopt e-commerce (in particular email) are excluding themselves from forming important relationships with tourism entities. For non-tourism related supplies enterprises used traditional methods.

Collaborations

This factor refers to an assessment of the opportunity to form alliances through e-commerce. The Internet creates opportunities for businesses to create alliances that include joint ventures or other marketing alliances between businesses (O'Brien 1999) or for small businesses to pool their resources to adopt the Internet.

Malaysia

In Malaysia some enterprises expressed interest in collaborating with other STEs but cited business culture and customer differences as the main drawbacks. The owner of MR11 commented that it was very important but *'difficult to achieve'*. If the opportunity arose to collaborate with other businesses to pool resources and create a greater web presence it would be considered by the owner of MM14. Another three participants (MM8, MM10 & MS9) suggested that they would like to collaborate, but it was difficult because other enterprises operated differently and catered towards dissimilar markets. Along these lines, it was remarked '[we] *would like to but other businesses have different cultures and ethics'* (MM10). In the case of MM1 there were no other tour operators in Sibu to collaborate with. The owner of MM12 would like to pursue some kind of relationship with backpacker and other budget traveller associations but not with other STEs. One enterprise (MS7) was a member of the Sabah small lodges association and this group of tourism operators was considering collaborating together and developing a website for the group. This website would be more comprehensive and have more marketing power than the individual enterprise website of the STE (in the case this business the website had not been successful). All enterprises in Bario collaborated together on e-Bario (which has been described on a number of occasions). Without this forum enterprises from Bario would have very little online presence, because of the overall low readiness.

Ecuador

Amongst the Ecuadorian STEs only one (EM8) was collaborating with other tourism enterprises. EM8 collaborated with a group of small tourism operators from all over Ecuador. The group offered different types of eco-tourism services in Ecuador. The owner explained that without this collaboration it would have been impossible to promote on a popular USA tourism portal, which was relied on for customers. Promotion on the portal cost US$ 1700 per year. The business could not afford to promote on this portal on its own. This is another example of the importance of these services. The main purpose of the group website was to advertise as a cluster to better compete with other destinations because Ecuador did not have a strong online tourism presence.

Some tourism enterprises have contacted EM6 for the very reason of collaborating. However, the owner was not interested in an alliance of this kind and did '*not want to join another family*' because '*it is hard enough controlling everything as it is*'. The interviewee continued to say that she was '*unsure about the other businesses and how their reputations would affect my business*'. Finally, the owner of ES1 thought collaborating was a good idea, but was too busy to invest in these initiatives. This was a common response amongst the other participants.

Summary of Collaborations

In Phase One of the study there was a significant amount of conjecture amongst the experts concerning the role that collaborations play in e-readiness. However, the experience of the data collection shows that collaborations did not emerge as a readiness factor, but rather a means of overcoming low e-readiness. This is true despite the fact that Latin American countries rank high on Hofstede's scale for Collectivism (see section 3.3.1), there was very little observed in terms of collectivism in a business sense. This is true concerning the use of ICTs and business traditionally, although one enterprise did collaborate with a group of like-minded tour operators. In one other case a remote tour operator worked with other businesses in a village to develop new lodges to cater for the increase in tourists.

Where a collaborative effort took place it was important. The relatively low use of collaborative efforts may be linked with the competitive nature of the tourism industry. The competitive environment makes creating collaborations difficult. Some enterprises thought that developing some kind of collaboration with relevant enterprises was a good idea, as this would allow them to have a greater presence and promote a destination or group of STEs with more effectiveness. However, the general concern was that other businesses would have a different business ethic or promote to a different market. This may be because developing collaborations requires management skills, foresight, trust and the ability to develop strategic relationships. These managerial attributes are not always readily available in developing countries. Furthermore, STEs typically do not actively engage in this type of networking (Braun 2005). In line with this, Gammack et al. (2004) reported that SMTEs in the APEC region fail to recognise the importance of industry clusters and cooperation.

It is important to point out there was a strong collaboration effort occurring in Bario, through the development of the e-Bario initiative. This not only promoted each individual lodge but also the destination as a whole. In line with this, an expert in Phase One commented that collaboration amongst STEs could be

a way of promoting a region or location. An STE in Ecuador also collaborated with other STEs, although in this case it was with other tourism operators from all over Ecuador and the purpose was to develop a combined website (in addition to its individual one) and promote on an expensive USA based travel portal. In both cases the decision to collaborate was guided by the advantage that could be gained by pooling resources. This suggests that collaborations present a valuable opportunity for resource poor STEs, especially those in rural areas. At the same time, the experience of the field research suggests that there is little evidence to suggest that collaborations are a readiness factor, rather collaborating is a very important strategy to overcoming low readiness.

7.2.6 Summary of Market Readiness

The qualitative evidence identified that customers, competitors, and tourism supplies/partners within the market readiness contextual area are pertinent e-readiness factors. This contextual area acts as a driver because market forces appeared to have acted as a catalyst for change. Both sets of STEs largely marketed towards international customers, particularly those from Europe, North America, Australia, and Japan. This may aid in explaining their actual use of e-commerce. It was observed that tourism is a highly competitive industry and that tourism intermediaries play a large role. This is a phenomenon that is not well supported in the literature in the context of developing countries. The factor collaborations was not found to be a relevant e-readiness factor, but rather a strategy to overcoming low e-readiness. This is something that is explored in greater detail in the next section.

7.3 Reflections on e-readiness

The experience of the data collection provided in-depth insight into the most relevant e-readiness factors that concern STEs. At the macro level, it was found that government readiness, telecommunications infrastructure and supporting industry readiness are critical readiness factors. Moreover, these factors are all intertwined. This contextual area is described as a 'controller' and can also serve as an effective measure of the e-commerce environment in a developing country. As observed, government readiness in Malaysia has been crucial in providing a favorable e-commerce environment. This is in line with other authors that posit that the role of government is essential in developing countries in providing a conducive environment (Rizk 2006; Mujahid 2002; Pradhan 2002; Montealegre 1998; Sadowsky 1993). In Ecuador, on the other hand, government readiness can be described as low, with little being done to assist small enterprises. This is consistent with background discussion of Ecuador, and inline with the low rankings given to Ecuador concerning ICT policy and the related economic and business environment (Kirkman et al. 2002). In Phase One of this study experts suggested that government readiness can be both an inhibiting factor and at same time governments can offer assistance to STEs. Another important discussion point from Phase One was the availability of supporting services for facilitating e-commerce. In both Malaysia and Ecuador STEs reported that there was an abundance of these services, although at a cost. At the same time, there was strong evidence that enterprises turn to informal networks such as friends and family for ICT support and

advice and choose to handle things themselves. This echoes the informal characteristics of STEs described in the literature review.

At the organisational level, it was found that owner/manager readiness is the most critical readiness factor, and, as observed this factor is associated with the way other factors can impact on e-readiness. This supports existing literature (Iacovou, Benbasat & Dexter 1995; Cloete, Courtney & Fintz 2002; Seyal, Rahim & Rahman 2000) and supports the position of experts in Phase One that owner/managers need to be dynamic and flexible. The next most relevant factor at the organisational level was internal employee skills. It was suggested that rural STEs should consider the human resource base (both Internet and language skills) when making decisions about e-commerce.

Unlike other studies that suggest that cost is an issue (Costa 2001; Lake 2000; Cloete, Courtney & Fintz 2002), this study found that although cost invariably impacts on the activities of an enterprise, it was not a major barrier to adoption (Wresch 2003; Rizk 2006). However, the cost involved in adopting and using e-commerce did limit the activities that STEs could perform. If this is to be suggestive of the wider population of STEs in both these countries and beyond (and if possibility of the selection bias is taken into consideration) then one can expect that the cost of e-commerce will pose a barrier for many other STEs.

In Ecuador enterprises paid almost double the cost for ICTs than their Malaysian counterparts. However, in both cases, enterprises found ways to circumvent the financial burden associated with e-commerce adoption. This provides transferable lessons for STEs in other developing countries - by identifying some of the techniques that can be used by STEs to attenuate the financial burden. This is encouraging for STEs in countries where the cost of ICTs presents a barrier.

It was found that market forces play an important role in fostering e-readiness – acting as a driving force. This is consistent with the literature that suggests that a critical mass is needed, and the suitability of the product to the Internet is related to adoption. The experience of the data collection reaffirms that tourism is a highly competitive industry. Customer readiness was high especially among ‘developed country’ tourists, while local customers preferred to use offline means plan and book their tourism purchases. This suggests that enterprises need to consider the type of market that they wish to attract, and that local and foreign tourists may require two different online strategies. In support of this an expert in Phase One commented that local and international customers have very different requirements and levels of readiness.

The experience of the data collection showed that the influence of market forces is so strong that it overcomes the obstacles faced by enterprises. In summary the main challenges are:

- Poor infrastructure.
- Cost of adopting e-commerce.
- Lack of government support.
- Lack of skilled employees.
- High cost of supporting services.

These challenges are evened out by the readiness of the market, such as:

- High customer readiness (proven by the high number of online bookings).
- Intermediaries prefer to interact with online STEs.
- Portals/intermediaries provide benefits such as increased web presence and booking engines.
- Competitors are online.
- Other destinations (competitors) are online.

Based on the data gathered from the field interviews the framework has been refined to identify the most pertinent e-readiness factors. The refined framework is graphically represented in Figure 33. A number of changes have been made to the framework that was refined at the end of Phase One. Owner/manager readiness in particular emerged as a contextual area that has been placed outside of Organisational Readiness because it emerged as such an important factor. Therefore in the e-readiness step there are four contextual areas. Some factors were omitted because they were not seen to be significant (such as internal IT infrastructure and collaborations). While socio-cultural factors did not emerge as large factor amongst the study participants there was certainly evidence to suggest that it is a factor amongst STEs that have not adopted e-commerce. The discussions with STEs also suggest that it is a factor that is broader than the organisational environment.

In Phase One of this study there was some conjecture surrounding the role of collaborations in e-readiness. It emerged from the field research as a strategy to overcome low readiness rather than a direct e-readiness factor. The internal IT infrastructure was found to be irrelevant amongst the participants. This was because they were not hindered by cumbersome IT structures. Other factors such as supplier and partner readiness and tourism enablers were merged together. In fact, one important discovery was the importance of tourism portals and intermediaries. These entities can be used to overcome low e-readiness.

Therefore the refined framework suggests that the notion of e-readiness for STEs is reliant on four related contextual areas: the macro environment, market readiness, organisation readiness, and owner/manager readiness. Moreover, the framework shows that the macro environment, market readiness and organisational readiness are all related with the owner/manager's readiness. That is, how these contextual areas influence the readiness of an enterprise is dependant on how the owner/manager is able to manage and contend with these variables. Each of the contextual areas and related factors are described in Table 34. As observed, an assessment of these factors is necessary in the planning stage to identify opportunities and shortcomings in the environment to allow owner/managers to properly plan for e-commerce adoption.

The e-readiness step is a useful instrument for small enterprises to systematically audit their business environment and identify limitations and opportunities. At the same time the e-readiness component may also be useful for researchers, policy makers or development consultants that wish to develop STEs through ICTs.

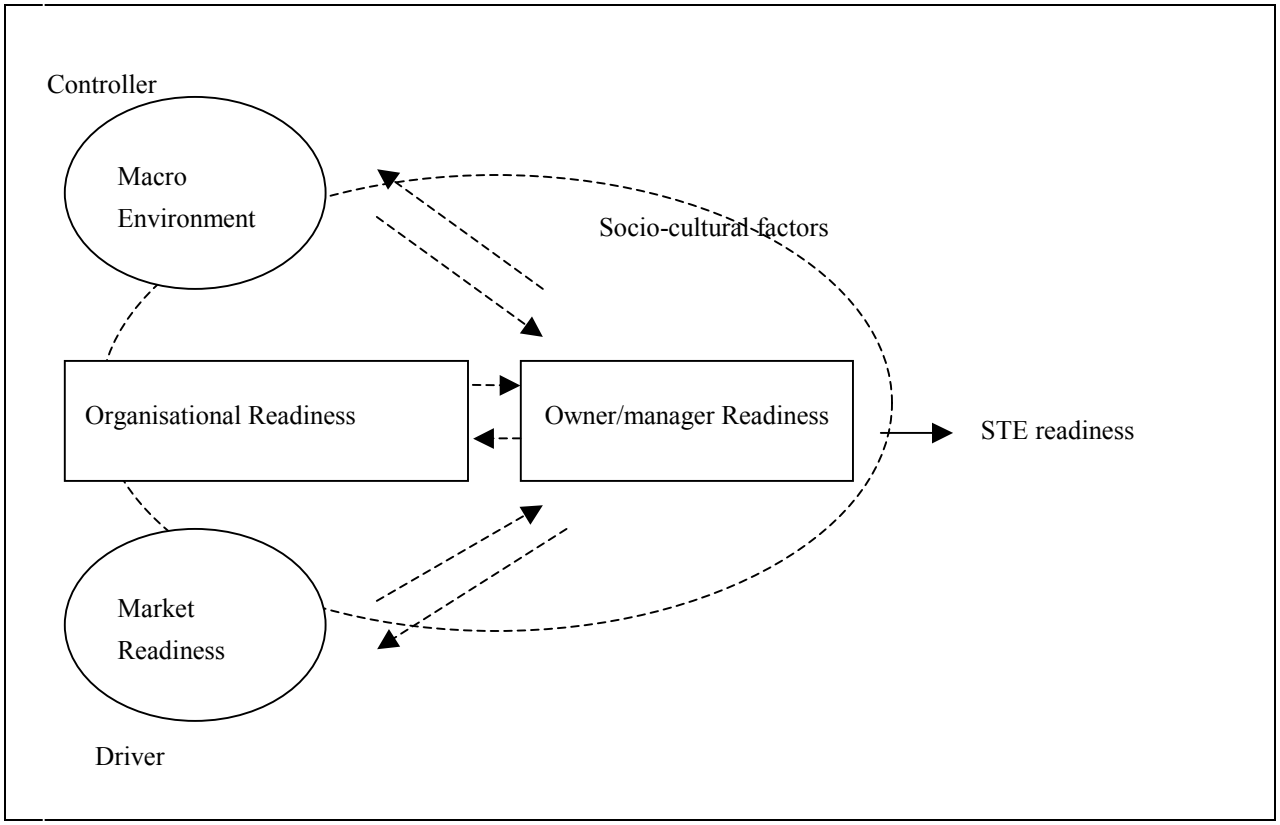

Figure 33: The refined e-readiness assessment

Table 34: The e-readiness factors (final)

Contextual area	Factor	Description
Macro Environment	Government readiness	Concerns government support of STEs and e-commerce in terms of the involvement and supportive policies. Although most of these will be transparent to STEs, they should investigate support initiatives that can help with e-commerce adoption.
	Telecommunications infrastructure readiness	Refers to the readiness of the telecommunications infrastructure (and access to electricity for effective use of ICTs).
	Supporting industry readiness	Concerns the readiness of e-commerce enablers. It includes ICT related support services and online payment related financial institutions/services.
Market Readiness	Customer readiness	Refers to customer readiness and their expectations of

		the STE to be online and the customer's ability to engage in e-commerce. Local and foreign customers will have distinct levels of readiness.
	Competitor readiness	Refers to an investigation of competitive pressure and competitor activities.
	Tourism suppliers & partners	This refers to the tourism networks in which the STE operates within and has the potential to engage through e-commerce. These include horizontal and vertical relationships with both online and offline tourism entities.
Organisational Readiness	Employee resources	Refers to an assessment of employee skills within the business (both ICT related and relevant language skills).
	Financial resources	Refers to an assessment of financial resources available to invest in e-commerce.
Owner/Manager Readiness	-	This refers to owner manager's overall awareness - characterised by attitude, knowledge and perceived value of e-commerce. This factor can influence the impact of the other factors on the STE.
Socio-cultural factors	-	This refers to a broad range of issues that cross the macro, market and organisational environment. Some factors identified in this study are, language issues, owners being too old to learn to use the technology, catering to illegal sectors of the market, cultural issues relating the local workforce, and that technology moves to fast for owner/managers.

7.3.1 Summary of the e-readiness step

In this section, a discussion was presented on the e-readiness component of the framework in light of the interview data. In particular the most pertinent determinants of e-readiness were identified and subsequently the framework was refined. It was observed that there are many similarities as well as vast differences between the two environments investigated. Nevertheless, this allowed the researcher to determine the factors that collectively contribute to e-readiness. A refined version of the e-readiness component of the framework was proposed. In the next section, the interview data is discussed in light of the second step of the framework.

7.4 The Information, Communication & Transactions Spaces

The previous section discussed the data collection concerning the e-readiness step of the framework. In this section the interview data is discussed to determine and categorise the main uses of e-commerce using Angerhns' (1997) ICDT framework (the Information, Communication, and Transactions Spaces). (The reader is reminded that because there are not any electronic or physical items for STEs to distribute the

Distribution Space was not discussed). In addition to discussing the main uses of each of the three spaces this section will describe the challenges STEs faced in doing so. It will also discuss comments made by STEs concerning how they may advance in their use of e-commerce, relevant issues, and their thoughts on the importance of the each space. Following the arrangement of the e-readiness discussion, the data is discussed country-by-country, and then summarised. Subsequent to this discussion, the e-readiness phase is discussed again with specific reference to the three spaces and how each space may be exploited in light of the e-readiness assessment.

7.4.1 The Information Space

This space refers to the different ways a business can provide information online. Exploiting this space means providing information to customers, such as product and business contact details. In the context of developing countries businesses typically exploit this space through basic static websites and the use of intermediary/portal websites. This was found to be the case in this study. The reader is reminded that this space is critical in the context of STEs and developing countries because:

- Tourism is an information-based and information-intensive industry.
- The Internet has become one of the most popular mediums for researching and planning tourism purchases.
- Trust is a barrier to e-commerce in developing countries, with small enterprises seen as a risk by international customers. An STE can address this issue by presenting information about the business online.

Malaysia

The main application of this space was to use it as a vehicle to promote the business and to offer information to potential customers. This was achieved by providing information on the business' website, tourism portal/intermediary websites, and official tourism websites.

Exploiting the Information Space through websites

The primary method of exploiting this space was through the development of a website. This was a not a new phenomenon. In fact, most enterprises had websites for over five years. Five enterprises did not have websites (MM13, MR2, MR3, MR4 & MR5), while the website of MM12 was partly under construction (though up and running). The websites were static in nature. That is, they were basic websites, developed and updated infrequently. Despite the simplicity of the websites, they appeared easy to use and navigate, although this was the impression of the author and not verified through any performance analysis. The types of information provided on the websites were business contact details, descriptions of tours and accommodation, images, and customer reviews. This suggests that even though many participants had a website for more than five years, they were clearly at the early stages of website development. Content was typically offered in English despite the worldwide and local customer base. Interestingly, the owner of

MR11 also used the Information Space to inform customers that telephone communication may not be possible (on the website of the business was stated '*call but Phone lines sometimes down')*. This is an interesting strategy, and one that could be employed by other STEs with telecommunications problems – in the previous section it was observed that one participant (ES12) commented that customers sometimes did not understand why the business experienced communication problems.

A number of comments were made on the importance of a website. A participant (M12) considered the business website as necessary (even though it was still under construction) and suggested it was common for lodges that market to international visitors to have one. This supports that customer readiness is an adoption driver. A similar view was shared by the owner of MM1, in this case the website was essential because the enterprise was located in a city that was not frequented often by tourists. Likewise, a tour operator (MM8) that operated solely online commented that the business could not exist without a website. Two participants (MS7 & MM14) were considering completely revamping their websites in the next year. One (MS7) explained the rationale for revamping the website was because he believed that customers wanted a website that they could visit and obtain all the information that they needed concerning a destination (as opposed to having to search multiple websites). While another participant (MS6) was considering adding Italian and Russian content on the website specifically for those markets.

Of the enterprises that did not have a website, one urban (MM13) and two rural enterprises (MR2 & MR3) were considering developing one. The owner of MM13 indicated that she would use a friend to develop it, as she would be able to negotiate the price. The other two (MR2 & MR3) were considering developing low cost and low maintenance websites, though one of these participants (MR2) was unsure of how to approach this venture. In the past the owner of (MR3) tried unsuccessfully to develop a website, and expressed interest in trying again. However, next time the business will be assisted by a friend (from abroad) who has website design skills (the previous website was built by one of the managers). This suggests a link between financial readiness, recognising a lack of internal skills, and how informal networks can be used. For enterprises without a website, using intermediary websites as a vehicle to exploit the Information Space was essential – it was observed in the previous section that these tourism entities play a role in e-readiness. The next section describes in more depth how participants used these third-party websites to exploit the Information Space.

Exploiting the Information Space through tourism intermediary/portals

In addition to using websites to exploit the Information Space, the majority (nearly eighty percent) of the STEs were using online intermediaries to promote themselves. Three enterprises (MM12, MM13 & MM8) did not promote through a third-party site. The owner of MM13 explained that this was because they (the intermediaries) had not been in contact with the business. While another participant (M12) was planning to develop relationships with as many online tourism related entities as possible – particularly those aligned with eco-activities and backpackers. The typical types of information on these portals were: details of products, business details, images of the business and activities, and reviews. In some instances, an enterprise's email address would be listed, though in most cases customers would have to make a booking or send a query through a form on the portal website.

A few enterprises were affiliated with so many intermediary websites that they were unaware of how many they were listed with: '*we are with so many I cannot remember the amount or the names of the sites*' (MM14). The intermediaries were almost exclusively tourism related, although in some cases they were also eco-friendly websites or other niche websites. For instance, a scuba-diving operator (MM14) was listed with many scuba-diving portals, and another (MS6) (which is recognised for environmentally friendly practices) was listed with eco-friendly portals. Referring to the importance of these strategic relationships, it was commented '*It is important and successful, if only there were more people wanting to come to the country!'* (MR11) (Referring to the smaller numbers of tourists that make it to East Sarawak compared to Peninsula Malaysia and Sabah). Only a small amount of enterprises (MM14, MM10 & MS6) paid for promotion on the intermediary websites, and they reported that the affiliation with these websites were important to the business. In addition to the use of third party entities in this manner, the owner of MS7 explained that he wanted to use an online travel forum to post some promotional details of his business (self-promoting the business), however, he could not figure out how to login. The indication was that his Internet skills were not efficient to work out how to login to the website.

In the case of Bario, all the STEs that participated (MR2, MR3, MR4 & MR5) had listings with the e-Bario website, which offered the STEs a way of exploiting this space. Two enterprises also promoted themselves with another local initiative (www.kelabit.net). However, all enterprises from Bario also listed with online intermediaries and described these as important for exposure and for receiving bookings (the most popular being www.wildasia.net). This further highlights the importance of these services in enabling remote STEs to exploit the Information Space.

Exploiting the Information Space through official tourism sites

The official government websites were: www.sabahtourism.com (only MM8 from Sabah was not on this website), www.sarawaktourism.com (the Sarawak website was under construction at the time of the investigation), and the well recognised and award winning site www.tourism.gov.my (in Sabah all but two enterprises were listed on this website, while none of the enterprises from Sarawak were listed on it). These websites offered STEs the opportunity to exploit the Information Space. The Sabah tourism website displayed categorised information and published business contact details such as email and URL, as well as location and number of rooms, and so forth. The Malaysian tourism website was more comprehensive and included features and information, such as directories of tourism enterprises, music, list of events, information for business travellers, multimedia presentations, and in pre-trip and in-trip information.

As observed, many STEs explained that use of official tourism websites played an important role in exploiting the Information Space. Some enterprises were still in the process of joining these websites. MR11 was in the process of being listed with the official site for Sarawak, because it was important to be '*recognised as a bona fide business*'. While two participants (MM8 & M12) explained that this would be their next step after receiving accreditation. In the case of MM13 the government tourism website was the primary means of online promotion and has lead to an increase in customers.

Ecuador

Echoing the use of the Internet amongst Malaysian enterprises, Ecuadorian enterprises also heavily made use of the Information Space. The main ways that this space was exploited was through the development of a website and promotion through intermediary websites.

Exploiting the Information Space through websites

All enterprises in Ecuador had a website. Again this was not a recent occurrence as most STEs had websites for over three years. This is similar to the case in Malaysia and suggests that the use of websites is becoming more common amongst STEs in developing countries. On the whole the websites were a step ahead of the Malaysian STEs (again, this was the impression of the author and not verified through any performance analysis). Many of the websites used streaming images and were available in multiple languages. Table 35 displays the languages in which the websites were available.

Table 35: Languages offered on website by Ecuadorian STEs

	ES1	ER2	EM3	EM4	EM5	EM6	EM7	EM8	ES9	EM10	ER11	ES12
English	X	X	X	X	X	X	X	X	X	X	X	X
Spanish	X						X	X		X	X	
Dutch					X					X	X	
French								X		X	X	
German							X				X	
Portuguese											X	

The use of websites to exploit the Information Space was for different purposes. For instance, the website of ES9 did not directly attract customers, this was because the website was only used by overseas travel agents as a brochure to show to potential customers. Nevertheless, its use in this manner had resulted in bookings and a reduction in the cost of printed advertising material. The owner labelled the website a *'permanently updated lying brochure'* (like a traditional brochure except that the online version is always up to date). The owner explained that his customers were typically wealthy older travellers that preferred to pay a travel agent to take care of all the arrangements.

The owners of EM10 were eager to point out that their website received 800 to 1000 hits per month. Although the majority of customers were business travellers, the website was actually marketed towards independent travellers, a market they were keen to develop. However, at the time of the interview the high number of hits did not translate into bookings from the independent traveller market.

Exploiting the Information Space through tourism intermediary/portals

Ecuadorian STEs further exploited the Information Space through promotion with online intermediaries. Only two enterprises (ER11 & EM4) did not use these. The owner of ER11 explained that she felt that the

business was already quite popular and therefore further promotion was not necessary. To illustrate this a basic Google search will list ER11 on dozens of websites (such as, environmental sites, travel sites, blogs, travel reviews, and so forth) none of which the business had a role in providing information to. In other words, the STE did not have any actual involvement in its own promotion on these websites. Furthermore, the researcher noticed ten or so framed travel magazine and eco-lodge awards on the wall of the lodge from all around the world, which confirmed the popularity of the lodge. One participant (EM4), on the other hand, once used intermediaries for promotion but then decided to move away from them. This was because the business received no benefit from affiliating with these entities and that '*there are too many of these umbrella organisations who operate in the US, abroad and in Ecuador*'. The owner referred this type of service is a *´big racket´* because the intermediaries elicited a small fee for advertising and '*care nothing for the actual business*'.

The owner of EM3 commented that www.ecuadorexplorer.com was important for boosting the business profile. The owner commented that he continued to receive emails from other intermediaries who explained that if he affiliated with them they would boost his online promotion significantly. However, he explained that he was content with his level of promotion and replied to these tourism portals/intermediaries along the lines of *'no thank you I do not need to boost my online presence at all'*.

The owner of ES1 explained that one strategy she adopted when she first took over the business was to affiliate with as many online intermediaries as possible. These were a mixture of different websites, such as European travel websites and other tourism related websites directed at specific types of customers (such as backpackers or couples). The use of online intermediaries resulted in a small amount of bookings although the owner refused to pay for promotion on these websites because '*you can get carried away and end up paying a lot of money*'. A similar path was followed but ER2. The interviewee explained that the aim was to boost the online presence of the business. One of the first things the interviewee did (when she became involved in the business) was to get the business listed with as many tourism portals and scuba diving related websites as possible (but maintained that the business is not willing to pay for promotion on these websites). The interviewee found that many intermediaries would contact her in regards to developing affiliations and she commented that she would like to continue to build the business profile using intermediary websites.

Identical to the Malaysian STEs, the types of information displayed on the tourism portals were: details of products, business details, images of the business and activities, and reviews. In some instances, the business email address would be listed, although in most cases customers would have to make a booking or send a query through a form on the tourism portal website.

The most popular tourism portal was www.ecuadorexplorer.com. ER2, EM3, EM5, ES9, EM8, EM10, ER11, EM6 & ER2 were listed on this portal. In the absence of any government initiative www.ecuadorexplorer.com appears to be the foremost online promotional instrument for Ecuador. This was a relatively expensive promotional exercise. Three participants could recall the amount they paid for promotion on www.ecuadorexplorer.com. This varied from US$ 30 per month (EM5), US$ 69 every three months (ES9), to US$ 100 per month (ES12), although this appears to be for different levels of promotion.

Exploiting the Information Space through official tourism sites

In the previous section, it was observed on a number of occasions that the Ecuadorian government did not provide an avenue for STEs to promote online. One participant (ER11) received an eco-tourism certificate and along with this the business was promoted on a government tourism website, but the website is never updated and difficult to find (the researcher could not locate ER11 on the government tourism website). Furthermore, enterprises generally felt that the government did very little to promote Ecuador as a destination.

7.4.2 Summary of the Information Space

This section discussed the use of the Information Space amongst the two sets of STEs. Figure 34 illustrates the different uses of the Information Space adopted by participants. It suggests variation between the two groups of STEs in their use of the Information Space. In particular, the use of websites to exploit the Information Space was more common in Ecuador, while the use of a government tourism website was only used in Malaysia. The use of the Information Space amongst rural and metropolitan enterprises only varied slightly (mainly in the case of Bario, where all enterprises exploited the Information Space through a collaborative effort). However, rural STEs faced more obstacles to adopting e-commerce.

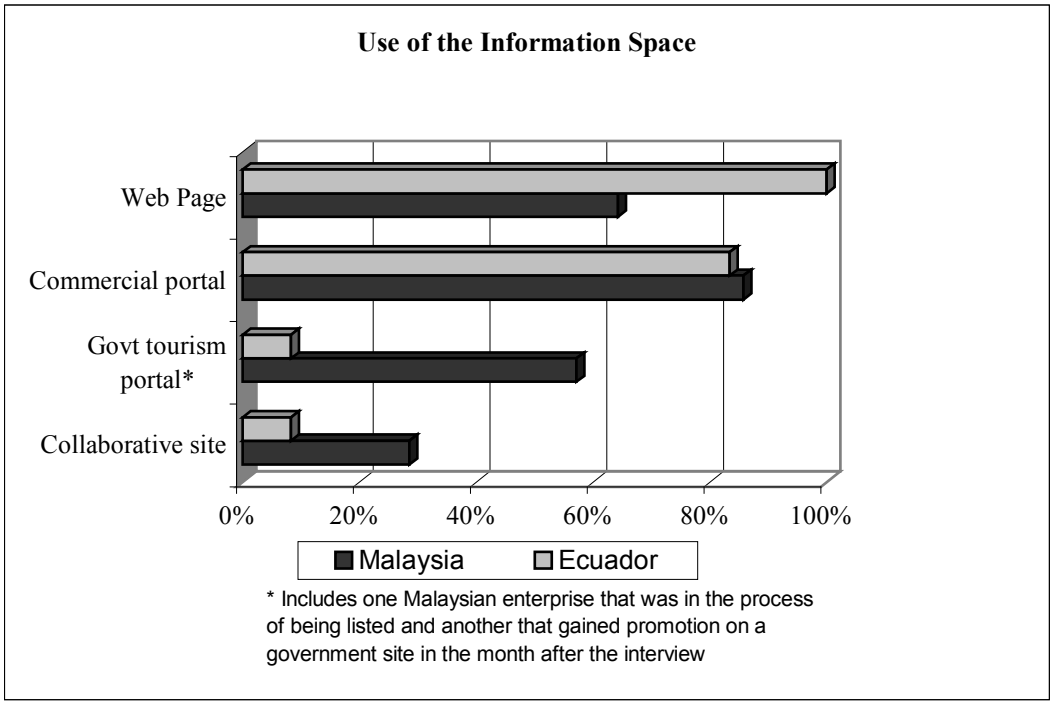

Figure 34: How STEs exploited the Information Space

The use of websites was very common and most enterprises had a website for over three years. This suggests that they are not lagging behind their counterparts in developed countries. For instance, a study of

Australian STEs found that most had established websites in the last three to five (Sellitto, Burgess & Davidson 2005). However, in this study the general level of sophistication of the websites was low. This is inline with the discussion in the literature review, where it was observed that small businesses typically develop basic static websites. This suggests that many STEs have reached a plateau level of sophistication.

Enterprises considered their websites as an important part of reaching international audiences, and described it as a cheap means of advertising. In support of this, Purcell et al. (2004) found that one of the key opportunities for SMEs using the Internet in Samoa is cheaper advertising. There were some examples to the contrary. For instance, one STE (MS7) did not experience an increase in customers by exploiting the Information Space through a website.

Overall, Ecuadorian enterprises appeared to have slightly more sophisticated websites, including streaming images. This goes against the perception that people and SMEs in countries with lower e-readiness rankings are less sophisticated in their use of the Internet. Along these lines, Dada (2006) argues that the e-readiness rankings applied to each country do not necessarily apply to the users within these countries. This is promising because it suggests that even STEs operating in constrained environments can make use of e-commerce. Another area where Ecuadorian enterprises proved to be more sophisticated was in making content available in multiple languages. This is illustrated in Figure 35. A possible reason for this difference is that information on the official tourism websites for Malaysia was offered in multiple languages – an option that was not available to Ecuadorian enterprises (for instance, www.sabahtourism.com offered content in English, Malaysian, and Japanese with downloads in Korean and Chinese. While www.vivecuador.com was only available in English)

Two enterprises (MS9 & EM4) shared the notion that a further benefit of a website was that it minimised the amount of paper being used by reducing the production of traditional advertising material. One participant (MS9) went so far as to say that he would like to become a 'paperless' business.

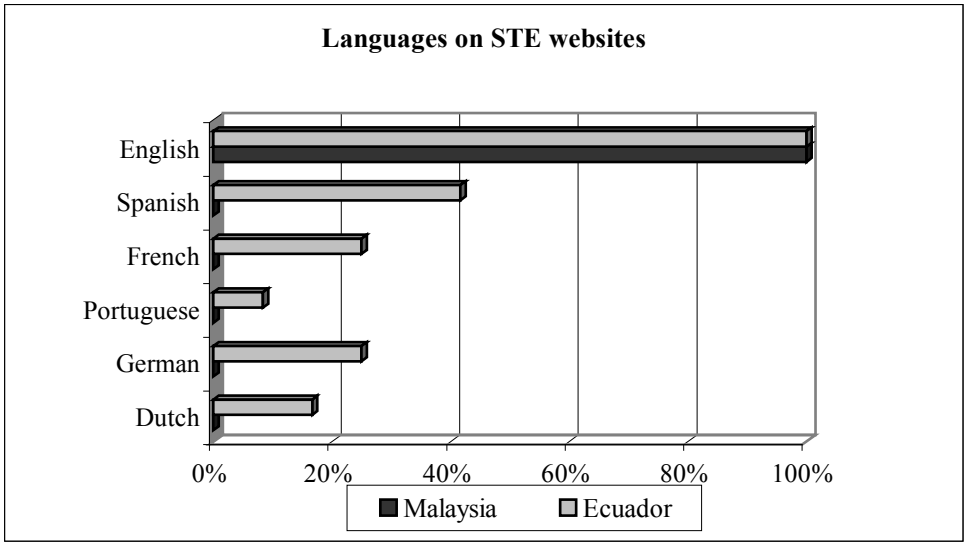

Figure 35: Languages offered on website

Although the discussion of websites suggests that they are commonplace in Malaysia and Ecuador, it is useful to point out that a brief review of STEs in both countries revealed that not all STEs have a website. Some socio-cultural and customer related reasons have been given for this.

In addition to the use of individual websites, tourism portal/intermediary websites were seen as an essential promotional method. This supports the comments made by an expert in expert panel '*the portal publishing medium has generally become important for the tourism industry with a growing number of smaller tourism enterprises tending to utilise a portal listing as an important web presence. Such portal service provides real value for the resource poor SMTE allowing them to have basic web exposure without the need (and cost) associated with establishing their own site'*.

In some cases this even resulted in online bookings (through the online intermediary website). Even the participant (MS7) that was dissatisfied with the lack of success of the business website received a small amount of bookings through a tourism portal. These websites proved to be important for STEs for a number of reasons:

- They ranked higher in search engine results.
- They offered services such booking engines.
- They allowed the enterprise to 'piggyback' on the name of the intermediary's brand.
- They afforded the STEs greater online exposure.
- They could result in increased bookings directly through the portal website.

However, some participants were frustrated with the difficulty of being found amongst the proliferation of websites in the Information Space. Two enterprises (MR11 & MM10) shared similar frustrations with online marketing: '*the biggest obstacle is how to promote the business, how to be found*' (MR11). They reported that in the late 1990's they enjoyed much more success on the Internet due to the fact that many of their competitors were not online. In fact, despite the newness of the Internet at that time they received a greater number of visitors, which they attributed to their online exposure through their website. However, as a result of the proliferation of competitor websites and tourism portal websites, the owner of MR11 suggested that the online presence of the business has suffered, and the website had become increasingly difficult to find. Conversely, an STE (MM10) was quite satisfied with how customers located the business online. The owner commented that for sometime after experiencing some initial success, '*being found on the Internet was an issue.*' Now using a strategy (which he preferred not to elucidate on), the business is listed directly (through its own website) or indirectly (on other websites) on every hit on the first page of a typical search engine search for accommodation in Kota Kinabalu.

Other studies have highlighted the importance of official tourism websites in promoting STEs (Purcell, Toland & Huff 2004). The previous section provided some examples of how government tourism websites could provide benefits to STEs. These websites provide tourists with pre-trip and in-trip information.

Government tourism websites are important because they help tourism enterprises, in particular those without websites, to promote themselves to a worldwide audience. Official tourism websites were important in the case of the Malaysian enterprises not only for promotion but also for being recognised as a legitimate business operator. Along these lines, UNCTAD (2004) identified trust as an important factor for international customers dealing with enterprises in developing countries. Nevertheless, in the case of Ecuador, no effective government tourism website exists, although www.ecuadorexplorer.com appears to have filled the void for some STEs.

Overall simple, inexpensive and low maintenance activities were taking place in the Information Space. The exception was the use of streaming images on some of the Ecuadorian STE websites. Figure 36 illustrates how enterprises were exploiting the Information Space and what information was provided. Although the ways enterprises were exploiting the space can be grouped into four areas (website, intermediary/portal website, government website, collaborative website) it is important to note that how this was achieved varied amongst the enterprises.

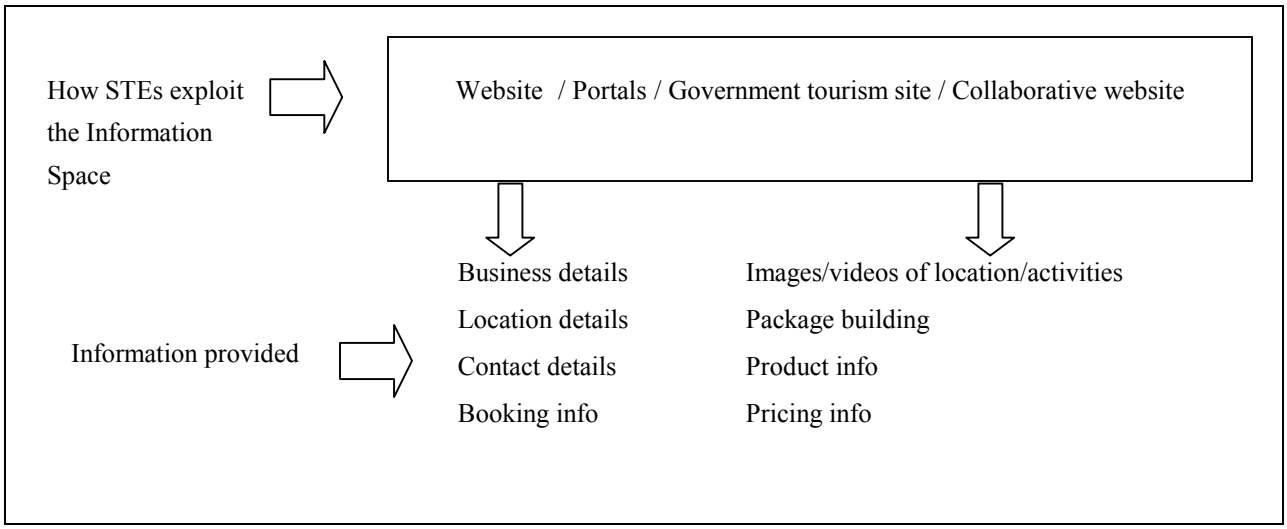

Figure 36: How enterprises were exploiting the Information Space

Even though the discussion so far points to the Internet as an efficacious tool to exploit the Information Space, it is useful to point out that traditional media still played a significant role and importantly it was linked to the success of the Information and Communication Spaces. Seven Malaysian and two Ecuadorian enterprises claimed that travel guidebooks especially had a large impact on their enterprises. Guidebooks were seen by enterprises as an exclusive form of advertising that could lead to an increase in customers and was linked to the success of the online presence. A bread and breakfast owner in Sandakan (MM13) that did not have a website commented that even having an email address listed in a guidebook '*has been important and resulted in more customers'*. A remote enterprise shared a similar experience (MR4). A tour operator located in Sibu (MM2) claimed that a listing in a popular guidebook '*has made me [the enterprise] famous*'. The owner of MS7 complained that a popular guidebook actually incorrectly spelt the business' email address and lamented the potential loss of business this caused. A participant (EM10) explained that Lonely Planet contacted the business via e-mail to set up a date to meet with the business

owners (husband and wife). However one of the owners (the husband) forgot about replying to the email. The wife lamented this lost opportunity and complained to the husband about his recklessness during the interview. This example also illustrates that increased interaction with tourism entities (in this case travel guide books) can be gained by adopting e-commerce, specifically email. UNCTAD (2004) recommends that STEs take advantage of traditional marketing techniques (to complement online promotion). On the other hand, the owner of ES12 commented '*for us it is not important to be in Lonely Planet, SA Handbooks [South America travel guidebooks]. For us it is important each trip goes well, even if it is one client. This is the best recommendation/promotion for us and we keep more or less the same kind of clients'.*

7.4.3 Communication Space

This space refers to the exchange of information with the various stakeholders, such as customers, suppliers, and strategic partners. Unlike the Information Space, information in the Communication Space may flow both ways and can travel synchronously or asynchronously. It bears reminding that email is the most widely used Internet activity by small businesses in developing countries. It is also the most cost effective and easily adopted.

Malaysia

Email represented the primary use of the Communication Space. For all of the participants interviewed, it was seen as a cost effective medium that allowed communication across geographical borders. One unexpected benefit that arose from using email was that many enterprises (MR11, MR3, MR4, MR5, MS7, MM10 & MS9) found that online tourism intermediaries began to contact them to develop affiliations.

Communication with customers

The main business activities in this space involved communication with customers, mainly answering queries and receiving bookings. It was observed that the range of online bookings varied from 60 to 90 percent. Conversely, one enterprise (MS7) reported that the number of enquiries and bookings received via email was negligible.

One participant (MR11) had been using email since 1998 and initially enjoyed high numbers of bookings from email, although recently with more and more competitors becoming online these numbers had dropped. All the STEs in Bario (MR2, MR3, MR4 & M45) reported that they had increased the numbers of visitors significantly since adopting email. One enterprise (MR5) in Bario was also able to limit dependence on travel agents as a distribution channel. Overall, this highlights the importance of email as a communications channel '*for me, it is very good and convenient'* (MM13).

Communication with other entities

One benefit of the use of the Communication Space that is not well supported in the literature is that of increased interaction with other entities in the tourism chain. That is by adopting email, STEs are able to better exploit the Communication Space and communicate with other tourism players, especially

intermediaries/portals. This was a trend reported by seven participants from Malaysia (MR11, MR3, MR4, MR5, MS7, MM10 & MS9). As observed earlier, there are many advantages to using online intermediaries/portals. At the same time, there were some issues associated with dealing with these entities '*it has helped, but of course you lose immediate control over it and end up providing a fixed price service for someone else'* (MR11). Finally, the owner of MM1 explained that he sometimes used Skype[12] to communicate with overseas agents, because of the cost advantages it provided.

Ecuador

Email was the main use of the Communication Space amongst the Ecuadorian enterprises. Similar to the Malaysian STEs, the use of email offered significant benefits.

Communication with customers

The main business activities in this space involved communication with customers. That is, answering queries and receiving bookings. It was observed that the range of online bookings ranged from 40 to 100 percent. One enterprise solely received bookings via email (ES12 – for the tour business). Also, at the time of the study ER11 was only able to receive bookings via email because of problems with the telecommunications infrastructure. This reiterates the importance of email for STEs. The remainder of the enterprises had increased the number of customers since using email. One participant (ES1) was quick to point out that she makes sure to respond to emails as immediate as possible - she explained that there were tourism operators that checked their email only once a week. The owner of EM6 explained that email communication with customers was more efficient and effective. The interviewee continued to say that before the Internet she would spend all day typing faxes (on a typewriter) and then dialling away on a fax-machine, which was expensive and time consuming.

Communication with other entities

Email communication with tourism suppliers and partners, was another use of this space. Email was the main means used by the owner of (ES9) to communicate with overseas agents that it relied upon for customers. For EM6 communication with suppliers was '*about 50 percent email 50 percent traditional*'. Five enterprises (EM4, ES9, EM5, ER2 & EM3) reported that online intermediaries had contacted them since adopting email. Other enterprises still preferred to use telephone or fax communication as a medium to communicate with local entities such as travel agents, as responses were more immediate. Like the Malaysian STEs, there was increased interaction with other entities in the tourism chain (since email was adopted) (ER2, EM3, EM4, ES9 & EM5). One participant (EM7) used Skype and MSN Messenger[13] to communicate with overseas and local partners, like the case of the MM2 it was because of the cost benefits it provided.

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[12] Skype Internet telephony (VoIP) network allows users to speak to other Skype users for free or call traditional telephone numbers for a fee.

[13] MSN Messenger is an instant messaging service.

7.4.4 Summary of the Communication Space

As observed, the main use of this space was as a communication medium with customers and with intermediaries from abroad. It was observed that local customers preferred to use the telephone to contact STEs. For many businesses, bookings via email represented a large portion of overall bookings. Using email also allowed enterprises to reduce their communication costs and provided an efficient communication channel. This supports the argument that email is the most widely adopted Internet activity adopted by small enterprises in developing countries (Duncombe 1999; Moodley & Morris 2004; Palmer 2000). There was some use of online communication technologies such as the telephony service Skype and the instant messenger service MSN messenger. Given the benefits of these technologies and their uptake across the world they are likely to be used by more and more STEs in the near future (the Skype website http://www.skype.com/intl/en/ claims that in 2006 there were over 136 million users worldwide. While in 2005 there was over 180 million active MSN Messenger accounts each month http://www.microsoft.com/presspass/press/2005/). This is an area that is not well explored in the context of use by small businesses in developing countries.

In Phase One an expert suggested that the Communication Space can be used for 'push' marketing by STEs through the use of e-newsletters that *'focus on converting the "one-off" customer into the "repeat" customer'*, however there was no evidence of this type of activity occurring at the time of the study. Nevertheless, roughly one year after the study however the researcher received an e-brochure from one of the Ecuadorian STEs. This suggests that this may be the next step for some STEs.

STEs experienced increased contact with online tourism intermediaries and portals once adopting email. This led to greater exposure and in some cases increased bookings (directly though the tourism intermediary website). It was also suggested that email provides a physical record. ICT infrastructure was the main obstacle to exploiting this space – this has been discussed in detail in the e-readiness section. In Malaysia four enterprises (MM8, MS9, MR11 & MM14) indicated that this meant that they needed to have more than one email address in the event that their mail server 'crashed', which occurred often (this refers to the ISP or other external mail servers, no enterprise had their own internal mail server). The following two extracts from two participant email signatures highlights precisely how this was achieved:

'Please note that if we didn't reply your message within 3 days time, please forward your e-mail to xxxxxx_tours@hotmail.com or give us a call. Sometimes, the server could be down. Sorry for the inconvenience!'

And,

NOTE Due to the unreliability of our mail server, please send your messages to all three addresses below:
mailto: xxxxxx@tm.net.my
mailto: xxxxxx@hotmail.com, and
mailto: xxxxxx@hotmail.com

For the same reason a participant (MR11) had six email addresses, and three of those email addresses were forwarded on to a single address (a participant that sent 'dummy' emails to competitors also reported that often emails bounced). This is similar to the strategy of the same participant (MR11) that used the Information Space to inform customers that telephone communication may not be possible. This is another example of how owner/managers contended with underlying infrastructural problems. Interestingly, this was not a strategy adopted by the Ecuadorian participants.

A number of benefits were associated with the use of the Communication Space:

- Reduced cost of advertising.
- Faster communication.
- Increased interaction with tourism portals/intermediaries.
- Provide physical record.
- Increased bookings.
- Reduce dependence on traditional distribution channels.

7.4.5 Transaction Space

The main use of this space is to carry out actual payments online. It has been observed throughout this thesis that small businesses in developing countries face many obstacles to offering online payments, and these are still very rare in developing countries (Asia Foundation. 2005). Although portals have been suggested as a possible solution (Kuwayama 2001), the experience of this study suggests that there is little evidence to support this claim. The readiness of the Malaysian and Ecuadorian infrastructure and supporting industry to enable online transactions has been discussed.

Malaysia

As observed, no enterprise offered online transactions. There was also some confusion in relation to how transactions could be performed online. This has been discussed at length in section 7.2. One enterprise (MM10) used a popular portal to 'sell' rooms. In this case the customer would make a booking that included placing a ten percent deposit online with the intermediary as a guarantee. The customer would then pay the remaining 90 percent upon arrival. While this resulted in sales, the money transacted online did not go to the enterprise, only to the intermediary. The reader is reminded that overall, enterprises saw this space as something that may be exploited in the distant future. The general view was that at the moment this activity was not appropriate or the critical mass (customer readiness) was simply not there to warrant the investment in this feature.

Ecuador

Two Ecuadorian enterprises (EM10 & EM7) offered online payments. This service was offered through Credit Card and PayPal payments. These two enterprises were not able to say what percentage of customers

utilised this option. However, both indicated the level was low. Echoing the behaviour of their Malaysian counterparts, there was some uncertainty amongst the Ecuadorian enterprises surrounding the customer readiness for this feature. Ecuadorian enterprises, however, were enthusiastic about the potential of online payments (and Internet banking generally), as this would allow them to avoid spending days at a time at the bank.

One participant (ES1) was affiliated with a tourism portal website that allowed customers to make a booking by paying ten percent online to the intermediary (similar to MM10) for a booking and then pay the remainder when they arrive at the hotel. The owner commented that this relationship has been good for the business because the customers and the hotel have a confirmed booking (however, again this did not involve online financial transactions between the STE and the intermediary or customer).

7.4.6 Summary of the Transaction Space

This space was the least used. Although, there was some indication that enterprises will begin to exploit this space. Contrary to suggestions in some of the literature and the comments of an expert in the expert panel '*a portal can allow the sharing of complex technology such as online payment systems. Sharing of infrastructure in a portal environment will allow SMTEs to access Internet-based services that may not have been possible at the individual business level'*, portals were not used to offer online transactions. Overall the conjecture and uncertainty surrounding this area suggests that it is one issue that needs greater attention by policy makers to allow STEs in developing countries to progress further up the e-commerce ladder.

At this point, it is useful to point out a recent observation. Nine months after performing the field research in Malaysia the researcher revisited website of MM14. During the interview the participant indicated that the business would develop a new website and use a European designer to do so. The researcher found the new website a great deal more sophisticated than the previous one (including streaming images, internal flight planner, scuba-dive planner, and was available in multiple languages). One feature in particular that was added is that the enterprise now offers customers the opportunity to pay using mobile (cellular) phone payments (it the literature review it was observed that Duncombe et al. (2005) suggested that mobile phone technology may be of use to small enterprises). In this case it is interesting because the business did not offer online payments. It may be that offering mobile phone payments may be a strategy employed to offer payments where PC-to-PC payments over the Internet are not possible.

7.5 Summary of the three spaces

This section discussed the Information, Communication, and Transaction Spaces in light of the data gathered from Malaysia and Ecuador. It was observed that the Information and Communication Spaces were the most commonly used spaces. In line with the literature the Transaction Space was the least used space. There were some similarities between the STEs from both countries in how the spaces were used.

However, it was observed that Ecuadorian enterprises showed some signs of more sophisticated uses of the spaces. Figure 37 illustrates how each of three spaces were exploited and what each space was used for. It bears some resemblance with the version of the ICDT model applied to travel agents by O'Brien (1998) (see Figure 9) especially concerning the types of information displayed in the Information Space. It is useful because it illustrates the simple ways that each space may be exploited and summarises the uses of the three spaces by the STEs in this study. In the next section the discussion examines the e-readiness framework with direct reference to the Information, Communication, and Transaction Spaces.

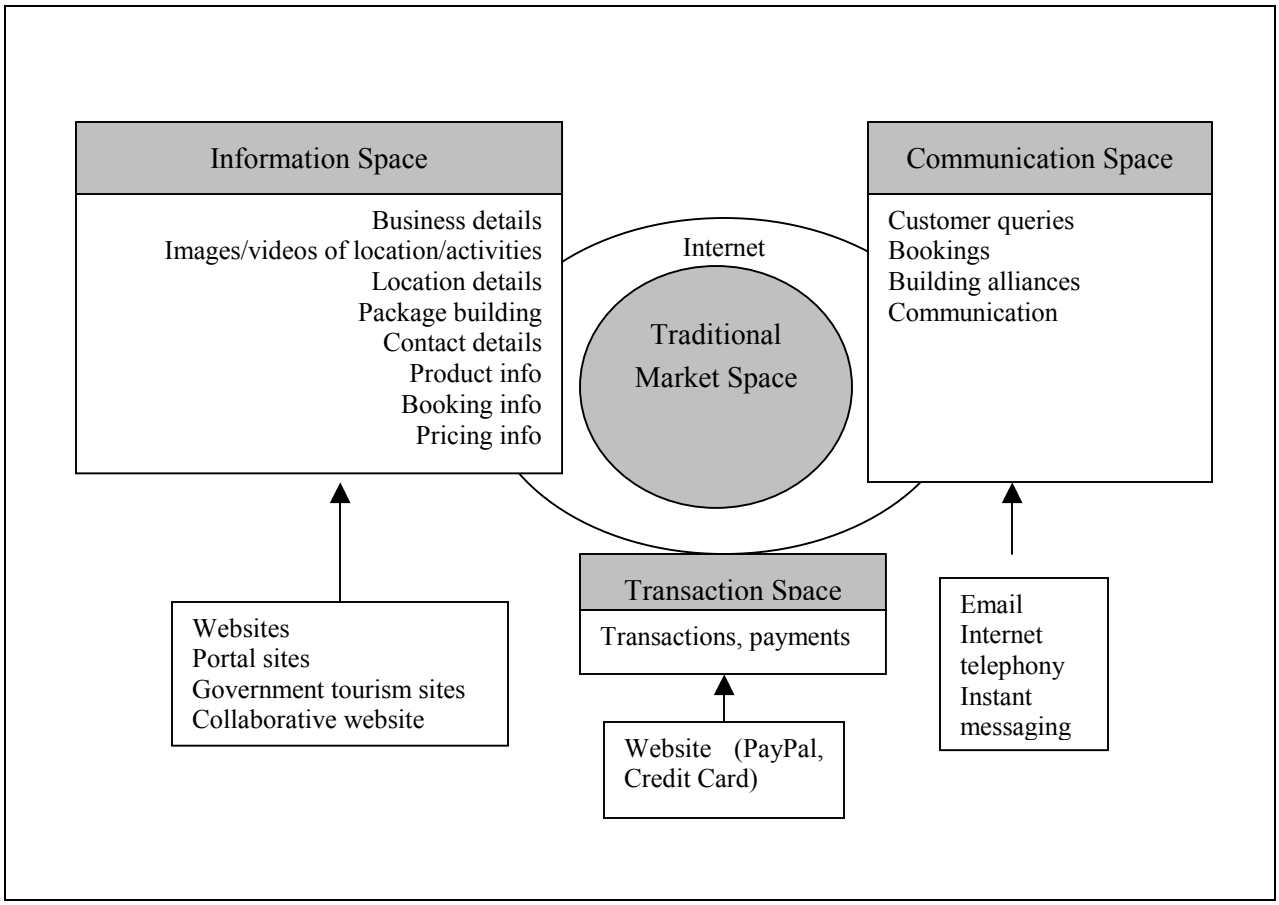


Figure 37: The ICDT model applied to this study

7.6 Discussion of the spaces and e-readiness

One theme that surfaced the discussion of the three spaces is that STEs in both countries have employed similar uses of the Internet. The major differences existed in how the Information Space was exploited, although the information provided was the same. This then leads to the question, how are STEs in a lesser-developed country (Ecuador) seemingly behaving in a similar manner as STEs in a more conducive environment (Malaysia)? One factor that was highlighted in the e-readiness discussion is that market forces have acted as a catalyst for adoption. The other factor that may help explain the similarities (despite the environmental differences) is owner/manager readiness. That is, owner/managers that are aware of the market forces and their overarching environments will find ways to circumvent barriers and adopt e-commerce. It has been observed that participants found ways to overcome limitations and adopt the

Internet. In the next section, the discussion of the e-readiness framework and the spaces that can be exploited by e-commerce are combined. The purpose of this is to illustrate how e-readiness factors relate to how the Internet can be used. By doing so, the research is putting together the final elements of this study. Following this discussion a table (Table 36) is presented that summarises the transferable lessons from this study for STEs.

7.6.1 The Macro Environment

Government Readiness

Government readiness played a multidimensional and somewhat transparent role in the readiness of STEs and the use of the three spaces. Government readiness played a role in facilitating adoption of the Internet in Malaysia. Some examples of government readiness in the form of initiatives have been described. More generally the Malaysian ICT policy environment was discussed in section 6.2.2. The government initiatives directly assisted in the overall e-readiness of a business and how they may exploit the Internet. For instance, tax-free ICT equipment can relieve the initial financial burden of adoption and schemes such as rebates on websites allow enterprises to exploit the Information Space.

At the same time, government readiness is more than likely to be transparent. That is, the benefits are more likely to be inherited in the actual environment (such as cheaper ICTs, more skilled human capital, and better infrastructure). In Ecuador, the government was seen to act as a barrier. It was commented that the government provides 'no assistance' and some enterprises blamed the government for the high costs of ICTs. According to the data, government readiness in Malaysia can be described as 'high' while in Ecuador it could be described as 'low'. Nevertheless, there were very similar uses of the Internet between the two sets of enterprises. The role of the Internet in tourism may help to explain this. In support of this, Tiessan et al. (2005) found that commitment to the web is driven by market opportunities and customer expectation.

For STEs, government readiness can also refer to the readiness of a government to provide an official tourism website as a platform for online promotion. This allows enterprises to exploit the Information Space by promoting on a scale not normally afforded. The benefits of these government tourism websites have been discussed. It has been observed that Malaysian enterprises enjoyed the promotion through the government tourism websites (www.tourism.gov.my, www.sabahtourism.com and www.sarawaktourism.com), and participants that were not listed on any government website saw it as the next step. In Ecuador this was not the case. In fact, Ecuadorian participants were generally disappointed with government tourism promotion. It is useful to point out however, that in the absence of a government tourism website the commercial venture www.ecuadorexplorer.com appears to have filled the void.

Telecommunications Infrastructure

In this study a number of different environments were examined (from remote to metropolitan). Even in areas where the infrastructure was poor, there was evidence to suggest that adoption can be achieved and lead to successful results. The key is that owner/managers learnt to circumvent or deal with the poor

infrastructure. In support of this Molla and Licker (2005) assert that while some enterprises may accept the internal and external barriers others will take steps to counteract them.

Even though the uses of the three spaces were quite similar amongst the two groups there were a number of different ways in which enterprises accessed the Internet. This was related partially to the overarching infrastructure. For instance, to exploit the spaces a number of different means of accessing the Internet were used:

- Internal access - using dial-up, ADSL, cable, and satellite connection.
- Access from a telecentre or public access point.

Also, using the Internet may involve learning to work with poor quality infrastructure, by:

- Answering emails offline.
- Using a backup ISDN connection.
- Using multiple email accounts.
- Using a backup power supply.
- Informing customers that there may be delays.
- Being innovative (such as in the case of ER11 setting up a satellite-dish).

This suggests that there is no 'one size fits all' solution. There is very little literature that suggests that there is more than one way to access the Internet or build a web presence in developing nations. This study however, takes into consideration the dynamics of the environment in developing countries. Take the Communication Space for instance. The primary use of this space was email communication, however, there are different ways access Internet access can be achieved (telecentres, satellite-dishes, dial-up, ADSL). This will depend on the most part on the telecommunications infrastructure. Internal access may only be afforded when the infrastructure permits and where the business has the financial resources. On the other hand, the Internet can be utilised from a telecentre (assuming one exists), such as by MR2, MR3, MR4 & MR5 and to a lesser extent by MR11, EM5 & ER2 (almost one third of the total number of STEs). This is inline with the attention that telecentres and public Internet access points have received in developing countries (Harris 2005; Colle & Roman 2005). However, it is an area where there is limited understanding in the context of use by small tourism operators. Where neither option exists (internal or shared Internet access) a manager may need to become innovative and look to options such as a satellite-dish connection, such as that employed by ER11. Innovative endeavours like this however will depend on manager readiness (as well as available financial resources).

Supporting Industry Readiness

For the most part access to professional services was readily available to study participants, except in the instances of the remote STEs. This included website developers, technicians, ISPs, hosting services, and so forth. However the suggestion was that these services are costly and it may be difficult to find 'a good one'. Use of professional IT consultants, was minimal. Where these services were employed however, they were

undoubtedly important for exploiting the spaces. By far the majority of STEs turned to family and friends for expertise and advice, or owner/managers developed their own capacity. This suggests that to exploit the Information and Communication Spaces expensive outside help is not necessarily required. This also acts as a lesson for other STEs – they should look inwardly (to informal networks and build-self capacity) for the existence of suitable skills and knowledge (where possible) before seeking external assistance. To exploit the Information Space many STEs developed websites themselves or used family and friends. This may help to understand why most STEs had simple low maintenance websites.

There was some conjecture amongst interviewees surrounding the use of online transactions. Even the two enterprises that were using this space were a little unclear on how it works or the volume. It is important that STEs examine the readiness of financial institutions or the readiness to use payment services such as PayPal before commencing with this step. STEs that transacted with overseas-based customers and agencies used international bank transfers or telegraph payments. There was also some indication of internal and personal use of online banking and enthusiasm amongst Ecuadorian participants for online banking. This suggests that there is potential for this space to be utilised between customers, partners/suppliers and businesses in the future.

7.6.2 Market Readiness

Customers

This study further confirms that the Internet has become an indispensable tool in tourism. The relatively high proportion of email bookings received by participants especially supports this claim. This was even true in rural areas where the environments were constrained. It was suggested that offline enterprises do not adopt e-commerce because they cater to the local market.

In relation to the spaces, an investigation of customer readiness is important, as customer behaviour is one of the major reasons for adopting e-commerce. To determine the best strategy, businesses need to understand their customer expectations. A costly move to incorporating online transactions for example may not yield any return if customers are not ready for/do not want this feature. Local customers will have different needs and different demographic groups will also have diverse needs. This has been explored throughout this chapter and was suggested by an expert in Phase One. This suggests that in relation to the spaces that customer readiness is multidimensional. That is, customer readiness is not simply about if customers are using the Internet, but also more deeply their actual online behaviours. For instance, in one case potential customers (who were upscale customers) typically only viewed the website of a business once pointed to it by their travel agent (like an online brochure).

Competitors

The evidence from the data collection overwhelmingly suggests that tourism is a competitive industry and competitive forces play a role in adoption. This supports the literature that contends that competitive pressure is a driving force concerning e-commerce adoption (Molla & Licker 2005; Xu, Zhu & Kraemer 2002; Lertwongsatien, Wongpinunwatana & Achakulwisut 2004). The general view was that use of the

Internet was commonplace in tourism. It was also the common consensus that online STEs were all exploiting the spaces in a similar fashion. The Information Space was used for providing information about the business in four simple different ways: through a businesses own website, on a government tourism website (to a lesser extent), through a collaborative website or through an intermediary website. The Communication Space was used by all STEs for email amongst customers and to a lesser extent with tourism suppliers and partners. There was also limited use of Internet telephony and instant messaging.

Tourism Suppliers and Partners

Interaction with tourism suppliers and partners was a common use of the Communication Space. This involved horizontal and vertical relationships with online tourism intermediaries such as tourism portals as well as traditional intermediaries such as travel agencies. Online tourism intermediaries played a large role in fostering readiness and exploiting the Information and Communication Spaces. As discussed, they provide a number of services and there are positive (increased web presence) as well as negative aspects (loss of control) associated with their use.

In the future, intermediaries may also be used to accept online payments (to exploit the Transaction Space), although there was very little evidence of this. Some enterprises had begun to use the booking engines of online intermediaries, but payments remained offline. This appears to be the next level of sophistication. STEs also reported that they experienced increased interaction from tourism intermediaries once going online. As underscored by Gupta et al. (2004) online intermediaries prefer to do business online. This suggests that STEs that do not go online may not benefit from building these essential partnerships. This e-readiness factor is important therefore for both communicating with partners and suppliers such as overseas-based travel agencies.

7.6.3 Organisational Readiness

Financial Resources

In the literature there are two schools of thought surrounding the cost involved with Internet adoption. One school suggests that it acts as a inhibiting factor (Costa 2001; Lake 2000; Cloete, Courtney & Fintz 2002). Others argue that financial factors are not the leading concern and businesses find ways to attenuate the cost surrounding Internet adoption (Wresch 2003; Rizk 2006). The evidence from this study lies somewhere in between these two arguments (although one limitation in claiming this is the perspectives of non-adopters, or STEs that may have tried but failed to adopt e-commerce). The reason for this is that while cost was not an e-commerce inhibitor it certainly influenced the types of activities that the STEs could perform. However, at the same time there were reports that adopting the Internet can reduce costs. The ways enterprises attenuated the financial strain of e-commerce adoption have already been pointed out and discussed. These provide transferable lessons for other STEs in developing countries. The key appears to be that if owner/managers perceive an item as being ‘needed’ then they will pay for it. This follows the traditional theories of innovation diffusion (Rogers 1983).

The ways that cost influenced the business directly impacted how the spaces could be exploited. For instance, some enterprises opted for free hosting of their websites (MM1, MM14 & ES9 – which appear rather unprofessional and contain third party advertisements) as opposed to paying for hosting to exploit the Information Space. In some cases, STEs used this as a first step before moving onto paid hosting. In support of this Costa (2001) suggests that a small business that has an idea to go online, should do it immediately, and correct it later.

The theme here is that financial resources are an issue in how each space can be exploited. In many cases the use of the spaces was imperfect and fraught with many limitations. In support of this Costa (2001) suggests that a small business that has an idea to go online, should do it immediately, and correct it later.

Employee Skills

One area that was of a concern to some participants was employing people with the necessary technical and language skills to manage or at least work within the parameters of an online presence. This was an issue in both rural and metropolitan regions, though more predominant in rural areas. Other than train employees (which can often be difficult because there was the suggestion that once they become more skilled they may leave) there appeared to be little that enterprises could do, as this is related to the overall readiness of the macro environment. Some owner/managers found that they were forever responsible for the online component of the job. This suggests that owner/managers need to consider this factor as they may find that they are drawn away from the daily operation of the enterprise. This factor may also limit how each space may be used as higher levels of sophistication require greater skills and are more time consuming.

7.6.4 Owner/Manager Readiness

In this study manager readiness played a defining role in adoption. This was evident in the way that manager's sidestepped hurdles and adopted the Internet. This supports Molla and Licker (2005 p.888) who suggested:

> *Some organizations might choose to accept these limitations and decide to wait and see or move very cautiously. But others with dynamic capabilities, committed leaders and business resources might have a very different assessment of their environment and can decide to adopt innovative business models that can work even within such constraints.*

This is important in developing countries where the environments are often restrictive. How the three spaces were exploited was related to how a manager dealt with an analysis of the overall environment. That is the capacity of the owner/manager to analyse, understand, and manage the forces affecting the business (Austin 1990). It has been observed on more that one occasion that this study may have researched the perspective of 'Internet enthusiasts', and the bias this introduces. At the same time, this is where the strength and utility of this study lies. By targeting online enterprises a number of concrete strategies have emerged from the qualitative data that serve as an example for other STEs seeking to adopt the Internet.

7.6.5 Note on the level of sophistication

In the literature review a number of different models of Internet adoption were discussed. These usually begin with entry-level activities and then build up to more sophisticated activities. In this investigation most enterprises were using entry-level activities and have been doing so for some time. The case of MM14 provides a useful example on building sophistication. This dive operator began their online presence with a crudely developed website that was hosted on a free hosting service. After some time, they developed a relatively more sophisticated website in-house and hosted it on a server in the USA. At the time of the interview the manager commented that the business would develop a more sophisticated website using a European website developer who understands the needs of the clientele. In October 2006 the researcher revisited the website and found that indeed a new site had been created. This was a very sophisticated site, with streaming images and sound, and was available in Spanish, Portuguese, Italian, Chinese, German, French, Spanish, and English (it was observed earlier that Malaysian participants only offered content in English). Also the business offers mobile phone payments and the website provides an internal flight and scuba-dive organiser. This supports authors who suggest that small businesses prefer a staged approach to adoption. As participants watched relatively closely to what others were doing online it also suggests that other STEs may follow suit.

A number of enterprises did comment that they would revamp their website and undertake a new promotional strategy and some also expressed interest in moving onto online payments. This suggests that as time progresses and e-readiness improves the sophistication of the three spaces increases.

7.7 The revised framework

Figure 38 presents a top-level graphical representation of the refined framework. As observed, there are two components to the framework, the e-readiness assessment component and the strategy formation component. Although the two components can be of use separately (the first as an e-readiness tool, the later to categorise e-commerce use), each is related. Each component includes more detail than can be incorporated into the top-level representation (a more in-depth illustration of the two steps can be viewed in Figure 33 and Figure 37).

The framework suggests that before the e-readiness assessment there is a precondition that there needs to be the idea to adopt. The results of this study suggest that market forces drive adoption. After performing the e-readiness step the enterprise can decide to exploit the Internet in light of the level of e-readiness, or if the enterprise decides they are not ‘ready', not to proceed with adoption. The iterative loop was suggested by a number of the experts in Phase One that argued that some small businesses might not proceed past the e-readiness step. However, the results of this study suggest that enterprises can proceed to exploiting the Internet no matter their level of readiness (at the same time, the researcher realises that this is biased by the inclusion of only online enterprises in this study). After auditing the business environment the framework suggests that an enterprise progress on to exploiting three simple spaces. This thesis has described in detail how these spaces can be exploited. After performing these two steps, the next move for an enterprise is the

actual adoption of e-commerce. Following the graphical representation of the framework a table summarising the results of this study in a manner that may be of use to STEs is presented. It provides a number of transferable lessons for STEs based on the structure of the framework.

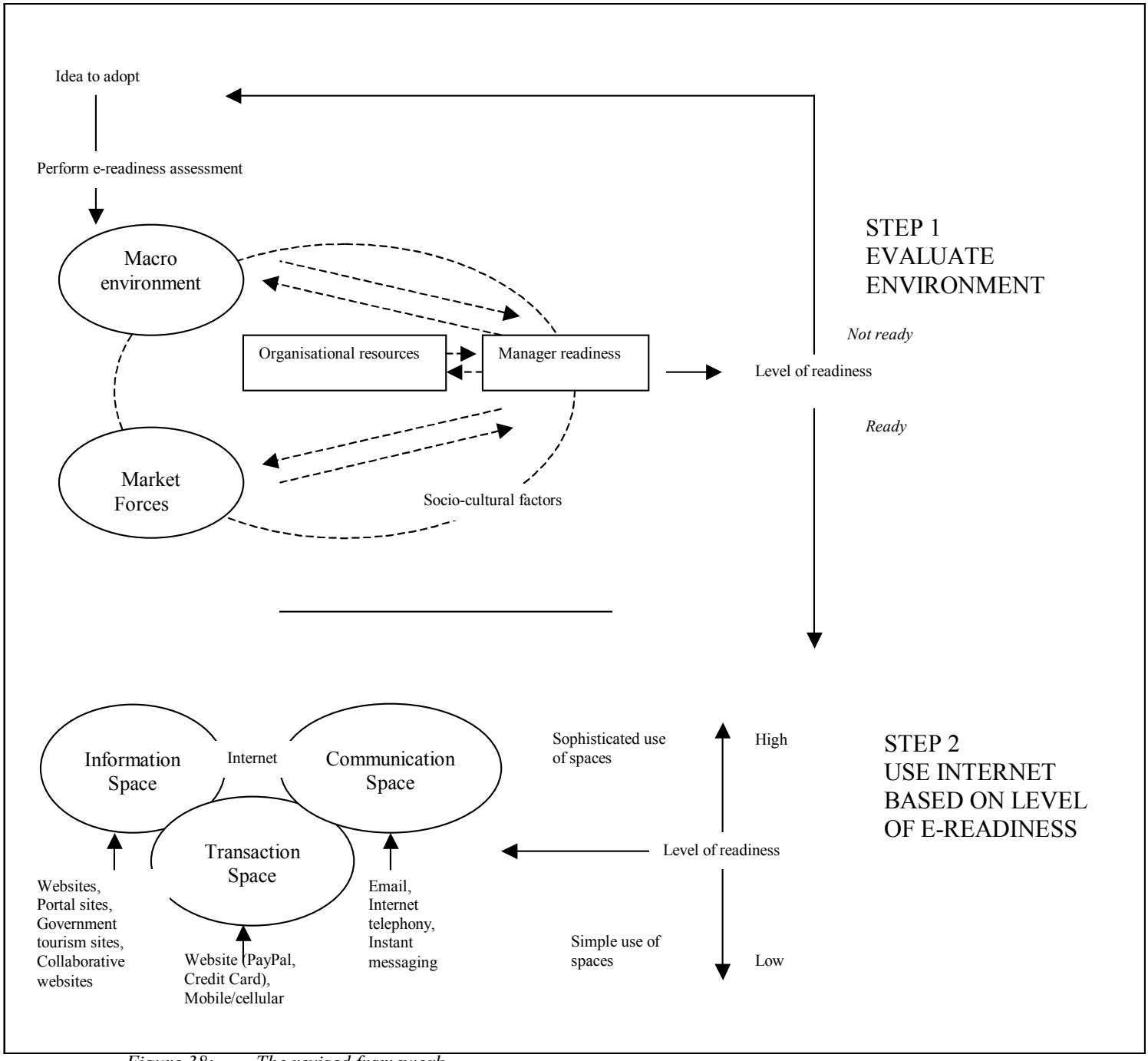


Figure 38: The revised framework

7.8 Summary of the field research

The study began with an initial framework that was developed based on existing literature. Phase One involved refining the framework using an expert panel. In Phase One the framework was narrowed to two areas (the e-readiness investigation and focusing on exploiting the Information, Communication, and Transaction Spaces). Phase Two refined the framework further using field research with STEs in Ecuador and Malaysia. In the first section of this chapter a discussion was presented on the e-readiness step in light of the field research. In particular the most relevant determinants of e-readiness were identified. In the following section details of how the three spaces were utilised were presented.

This study has offered a number of contributions for research and importantly a number of transferable lessons for STEs (Table 36). The final framework, although designed for STEs, is likely to be of equal use to researchers, development consultants, and policy makers. Although this was not a comparative study, it is impossible not to notice the differences as well as the similarities between the two diverse countries. This was more evident in the discussion of the e-readiness factors. One area that stands out is that of the divergence in government readiness. It has been observed on numerous occasions that the STEs in Malaysia enjoyed more favourable policies than their counterparts in Ecuador. The consequence of this was government contributed to readiness in Malaysia, while inhibiting readiness in Ecuador. In terms of using the Information, Communication, and Transaction Spaces it was found that there were a number of similarities concerning how the spaces were used between the two countries. Therefore, despite the difference in development experienced by the two countries, they both utilise the Internet in similar ways. This further supports the argument that macro e-readiness rankings are not always applicable to the small business level.

The discussion in the preceding sections indicated that different paths have been traversed in the journey to e-commerce adoption, and a range of conditions encountered. This means that there is no one-size fits all solution, and that a flexible approach to adoption is required that takes into consideration the business environment and organisational resources. One finding that is linked to this is the importance of the role of owner/managers in surmounting shortcomings and making sense of available resources.

This research contributes to the embryonic body of research in the field of STEs and e-commerce in developing countries, and has raised a number of questions for future research. It is one of a few studies that investigated this area by using field research in more than one country (as well as the expert panel). As a result, there is greater likelihood that the framework and the results of this study can be applied generally to STEs in other developing countries.

Chapter Eight

Summary & Conclusion

8 Summary and conclusion

8.1 Summary and conclusion

8.1.1 Further study

Although, this study has produced, assessed, and refined a framework, this does not mean that the work is complete. The most relevant determinants of e-readiness have been identified and the use of e-commerce has been discussed. As it stands a framework has been developed and as observed it is useful for small tourism operators and more broadly development consultants, researchers, and policy makers. An attempt has been made to transfer the conceptual framework into a more practical application for STEs (in terms of the suggestions in Table 36). The next challenge (post thesis) is to ensure that the framework can be applied to STEs. This requires further fieldwork with 'online' as well as 'offline' tourism operators. Such an application should not be theoretical, but should be practical (however, it should be based on a rigorous framework such as the one developed in this study).

Although this study focuses on a small selection of STEs in Malaysia and Ecuador, the intention was to gain an understanding of e-readiness with a finite number of participants. The results of this study are suggestive of the problems faced (to a large extent), and the solutions applied (to a lesser extent) by STEs in developing countries. One limitation is the absence of the point of view of offline tourism operators, or ones that may have tried, but failed, to surmount obstacles. A complementary approach would be to focus on both adopters as well as non-adopters. Another avenue for future study is to conduct a longitudinal study to examine the long-term experience of current non-adopters and their transition to becoming online. Some discussion has been given on non-adopters in this thesis, however this has been from the perspective of adopters. The researcher recognises the challenges involved with investigating non-adopters in a developing country context.

At the macro level there has been a significant amount of work done on bridging the digital divide. However, this has not been extended to the small business domain. To this end, the author encourages research that leads to outcomes that can be of use to small businesses as well as policy makers. Research that takes this framework and applies it to different developing countries (of varying levels of development), expands the scope of the framework to different industries and as already commented incorporates the views of non-adopters would be welcomed as extremely valuable. Another valuable contribution to research would be to investigate in greater detail the characteristics of owner/managers in the context of developing countries and examining further any links between their characteristics and how they adopt and use technology. This follows the typical stance of innovation adoption, but it is an area where there is limited understanding in the context of STEs and developing countries. The author encourages further study in this area and suggests that complementary research approaches are used, both qualitative as well as quantitative.

This study raises questions for future research. One emerging question is how can more widespread e-commerce adoption be facilitated amongst STEs in developing countries? This is a complex and

multidimensional problem, and one that is not only relevant to STEs, but also to businesses and individuals generally in these countries. Addressing infrastructural, financial, and capacity related barriers would go someway to further facilitating the diffusion of the Internet amongst STEs in developing countries. To this end, more research in this area is needed, as it is important in the domain of STEs, and more broadly tourism and economic development.

8.1.2 Summary of this thesis

The purpose of this thesis was to develop a framework to assist STEs in making decisions about e-commerce. The most relevant determinants of e-readiness have been identified and the use of e-commerce has been discussed. It was intended that the framework would provide STEs with an instrument that would allow them to systematically audit their business environment and provide a flexible approach to how best exploit the opportunities created by the Internet. It was intended that the framework would take into account the specific characteristics of small businesses in developing countries and the specific characteristics of the tourism industry.

In Chapter One (the literature review) the author framed the study by discussing generally the digital divide. The purpose of this discussion was to put into context the environment in which the study took place. This chapter also discussed the dimensions of small enterprises in developing countries. When looking at the specific characteristics of small businesses in developing countries, it is important to note that they operate in quite different environments than their counterparts in the developed world. Some of these characteristics are:

- They are resource poor.
- They suffer from information scarcity.
- They are affected by external forces, which they have no control over.
- They have basic technology needs, are informally run, and often employ family members.
- They have trouble gaining access to capital, which is often obtained from family members.
- The political environment is not conducive to small businesses and often favors larger businesses.
- They operate in informal sectors and avoid any form of formal registration.
- They face restrictions concerning qualified human resources

This chapter also established the relationship between tourism and the Internet. It was observed that tourism and the Internet are well suited to each other and the Internet offers many potential benefits for STEs. Some examples were given on the use of the Internet in the developing country context.

In Chapter Two (the theoretical foundations) a number of different frameworks and models were discussed that have been developed to describe technology adoption and assist enterprises to make decisions on

adopting and using technology. These focused on developing countries as well as developed countries and were aimed at a mixture of large and small enterprises, although none of these works focused on STEs (or simply small enterprises) in developing countries. This suggested a gap in the existing research. At this stage, it was possible to design the initial conceptual version of the framework. It was based on a synthesis of the works discussed in the chapter. As with macro and micro studies, the present work started off by categorising the different contextual areas. As observed from the initial discussion using Tornatzky and Fleischer's (1990) framework and discourse on the related literature collectively a mix of internal and external forces influence the adoption of e-commerce and contribute to the level of e-readiness. An investigation of these factors is useful in the planning stage to identify opportunities, detect and counteract obstacles, manage threats and develop e-commerce strategy. Though these factors may vary across different studies and have varying degrees of influence on a business, on the whole, they typically include an investigation of the macro environment, market environment, and the organisation environment.

The proposed initial conceptual framework segmented factors that contribute to the businesses e-readiness into three contextual areas. The first contextual area was labelled the Enabling Environment. This area referred to an e-readiness assessment of e-commerce enablers such as supporting industries and government readiness. The second contextual area was labelled Market Forces. This referred to an assessment of the market environment. It was suggested that in regards to the tourism industry an investigation of the market environment is likely to reveal the main e-commerce adoption drivers, such as customer expectations and intermediary and competitive pressure. The third contextual area was labelled Organisational Readiness. This referred to an assessment of the organisations readiness to adopt e-commerce. It is here that a business is likely to encounter many obstacles to e-commerce. The overall investigation of these three contextual areas was labelled the business e-readiness. Once a business has performed its e-readiness assessment, the next step is to decide how the enterprise will exploit the Information, Communication, and Transactions Spaces. This was based on the work of Angehrn (1997). As observed on a number of occasions each of these spaces may be used in various ways and this is directly linked to the level of e-readiness. The reader is reminded that the initial framework had three steps: 1) The E-readiness Step 2) The Strategy Formation Stage, and 3) Implementation Issues. However, a decision was made early in the investigation to omit the third step.

This study shared a number of characteristics of interpretive and post-positivist research. The study was classified as a Delphi (the focus group/the expert panel) and multiple-case study, although there were some unintentional elements of ethnography and the action research method. The study was divided into two major phases. Phase One involved a discussion with experts conducted through a web based discussion list. This was carried out like an online focus group and was designed to refine the conceptual framework. As is typical with such studies, a small number of experts participated in the data collection. A preliminary version of the framework was introduced at the start of the phase and was refined throughout the discussion. The following points highlight some of the major observations made during this phase of the study.

- Some of the e-readiness factors overlapped across more than one contextual area.

- There was some conjecture as to whether collaborations were an e-readiness factor or a strategy to overcome low e-readiness.
- Owner/managers play a large role in influencing adoption.
- The use of tourism portals is predominant in tourism.
- The framework needed to be iterative and a number of other structural changes were suggested.
- The Implementation Step should be omitted from the study to allow the researcher to focus on the first two parts of the framework. (In hindsight, this was an excellent suggestion as it allowed the researcher to focus the study).

Based on the expert panel discussion the framework was refined and prepared for Phase Two of the study. Phase Two involved an investigation of STEs in a developing country context. The countries selected were Malaysia in South East Asia and Ecuador in South America. The two countries were selected based on a number of decisive factors, such as e-readiness ranking and development indicators. It was also desirable to select two countries with different characteristics such as culture, religion, government type, and so forth. For logistical and financial reasons, two small countries in terms of surface size were selected. In total twenty-six STEs participated. Based on the data gathered during the field research the framework was refined further. A number of significant findings were uncovered in this data collection phase. Some of these were:

- Owner/manager readiness is one of the most relevant determinants of e-readiness. In fact, e-commerce adoption depends on how the owner/manager makes sense of available resources and the forces that surround the business.
- Owner/managers found ways to mitigate certain obstacles and deal with environmental constraints
- The tourism industry is highly competitive and market forces have fostered the adoption of the e-commerce.
- Government readiness can act as an adoption facilitator as well as provide many barriers to adoption.
- Despite the different levels of e-readiness and development experienced by both countries, STEs in both areas used the Information, Communication, and Transaction Spaces in similar ways – with Ecuadorian enterprises showing slightly more sophistication.
- The Macro Environment acts as an adoption controller, controlling many aspects of readiness.

The final version of the framework

The final framework (Figure 38) reflects the changes made to the initial framework based on the data gathered in both phases of the study. The framework suggests that before the e-readiness assessment there is a precondition that there needs to be the idea to adopt. After performing the e-readiness step the enterprise can decide to exploit the Internet in light of the level of e-readiness, or if the enterprise decides

they are not ‘ready', not to proceed with adoption. After auditing the business environment the framework suggests that an enterprise progress on to exploiting three simple spaces.

In the e-readiness step (Figure 33) there are four contextual areas with owner/manager readiness emerging as a contextual area on its own. Some factors were dropped because they were not seen to be pertinent in the context of this study, such as existing IT infrastructure (it was suggested that this factor may be more relevant amongst larger enterprises or those with more cumbersome IT infrastructures) and collaborations (this factor emerged as a strategy to overcome low readiness rather than a direct e-readiness factor). Other factors such as tourism enablers and supplier/partner readiness were merged into one factor, labelled tourism suppliers and partners. This was because they were found to refer to the same type of relationship with online and offline tourism entities. Socio-cultural factors were not a direct factor, however, there was the suggestion that this factor is related to e-readiness, and that it is broader than the organisational environment. This is an area that requires further research to understand its impact on STEs and e-commerce adoption. Notwithstanding the final framework, the two sets of countries displayed different levels of readiness concerning each factor. For instance, government readiness was high in Malaysia and allowed tourism enterprises to exploit a range of favorable conditions. On the other hand, government readiness was low in Ecuador resulting in no support to tourism enterprises. This disparity showed the importance and relevance of this factor in two different country contexts.

Concerning the three spaces, it was found that STEs exploited the spaces in a number of different ways. The Information Space was exploited through individual and group websites, the use of third-party websites such as tourism portals, and through government tourism websites. The communication space was primarily used for email, however there was some use of Internet telephony and instant messaging. The Transaction Space was the least used (only two STEs used this space) and was used for Credit Card and third party service payments. A graphical representation of how the spaces were exploited is presented in Figure 37.

Discussion of the findings

The adoption of ICTs in the tourism sector has become one of the choices that seem unavoidable because they bear so directly on the prospects for competing and even surviving in the highly competitive global tourism economy. With small tourism enterprises representing numerically the dominant form of tourism operators, tourism playing a major economic role and contributing to poverty alleviation focusing on ICTs should be an essential piece of tourism development.

In this thesis a number of impediments to the appropriation and use of ICTs were articulated. These are recurrent practical challenges across the digital divide literature. A dominant theme in this study is the awareness of small tourism operators of the need to adopt ICTs and their ability to affectively harness available resources. This provides lessons to offline tourism enterprises and even to small businesses in other industries where ICTs do present some value but where entrepreneurs are discouraged by what appears to be insurmountable challenges.

As other authors have highlighted, it appears that the use of ICTs and electronic marketplaces in Ecuador and Malaysia are most viable as open information exchanges. This is a true reflection of the nature of the

tourism product, which at its core is information. While the use of ICTs for transactions have emerged, its widespread use is likely to be slow given the lack of understanding, lack of financial and commitment investment and low level of confidence between buyers and sellers.

In Malaysia and Ecuador, like many other countries, ICT adoption amongst small businesses was driven by international customers, particularly those from affluent countries where Internet penetration is high and its use to research and plan purchases is common. This is illustrated precisely by the fact that local customers still prefer to use traditional means and low Internet penetration rates remain.

The benefits experienced by tourism operators in this study indicate that there is sufficient justification to push for ICT use, and lobby for wider policy support to small tourism operators that have not adopted ICTs or have tried but failed to surmount obstacles. For instance, just some of the incentives provided to Malaysian small tourism enterprises included rebates on websites, tax-free ICT equipment and promotion through a successful government e-tourism website.

Given the potential for tourism to play a role in poverty alleviation and the important role of tourism greater sector support should be provided to small operators. Some instructive examples of the case in Malaysia have been given, other recommendations for the tourism sector support have been provided.

Despite these benefits and encouraging examples of ICT adoption and use in this study, the majority of small businesses in developing countries have yet to reap these benefits (Chacko & Harris 2006). Therefore, an emerging question is how can more widespread ICT adoption be facilitated amongst small tourism enterprises in developing countries? This is a complex and multidimensional problem, and one that is not only relevant to small tourism enterprises, but also to businesses and individuals generally in these countries. The quintessential concern for those of us interested in ICTs and development is addressing infrastructural and human capacity related challenges. Addressing this has become increasingly important especially against the backdrop of the millennium development goals and the role that ICTs can play in development. There is a full spectrum of articulate opinion on how this can be done given the political will and resources. Adopting the sector support recommendations would go someway to alleviating some of the pressure from small tourism operators.

Applying the framework

The final framework can be applied in a number of different ways. At the small business level it can be applied by a manager to assess the business environment and organisational readiness to adopt ICTs. Using such a tool would identify opportunities and weaknesses that need to be addressed. At the same time, the framework could be used by development professionals or consultants to small tourism businesses. By applying the framework in this manner a consultant is well positioned to understand what areas need to be addressed (if any) before adoption can occur. Finally the framework is an instructive tool for policy makers. By applying the framework the tourism sector policy makers are able to identify which e-readiness ingredients are lacking and need to be addressed in the process of ICT and tourism development.

Table illustrates how the framework can be applied to small tourism enterprises. It provides a practical guide to e-readiness that is based on the rigorous framework developed in this study.

Table 36: Lesson for STEs

	Factor	How does it affect you?
Macro Environment	Government	A government can provide many different support programs that can assist you in adopting the Internet into your business. For instance tourism operators in Malaysia reported using government initiatives that included rebates on the cost incurred developing a website, no tax paid on ICT equipment, and promotion on successful government tourism websites. Conversely some governments do not offer any type of support to small businesses. Taking advantage of government support can help you in many areas of e-commerce adoption. For instance, financial incentives may assist you to overcome the financial burden associated with adopting and using the Internet. Unfortunately, in some countries this type of support will not exist - this does not mean that Internet adoption is off limits, as there are many ways to work around the costs. Some of these ways are discussed in a later section. A good starting point to uncover some possible initiatives that you can take advantage of is your small business council. Government tourism websites can be used to promote your tourism enterprise. Some governments have an official tourism website at the country as well as state or local levels. These are usually only available to 'accredited' tourism enterprises. Official tourism websites are especially important to tourism enterprises that do not have a website – as it allows them to promote worldwide with no expenditure. Government tourism websites are also important because they can allow enterprises to be recognised as a legitimate business. Where this option is not available (because an official tourism website does not exist), or you are not accredited then it is important to use a popular portal website for your country /region.
	Telecommunications Infrastructure	There are a number of ways to connect to the Internet. It is important that you investigate the telecommunication infrastructure in your area to gain an understanding of what type of Internet connection you are able to gain access to. If you have a reliable internal telephone connection, then consider using dial-up (the cheapest option), broadband or cable (the most expensive option). The Internet can be used to offer access to guests in a lodge. Where a reliable internal connection is not possible, consider an ISDN connection (Digital network with higher speed) or a satellite-dish connection – both these solutions are technically sophisticated, but achievable. You may also wish to use an Internet connection from a public Internet access point such as a telecentre or Internet café. This is a common means of access for rural tourism operators. Learning to deal with poor infrastructure may be necessary (this involves becoming accustomed to day to day outages and slow connections). A strategy used is to download emails, reply to them offline and the return online and send the reply. Other strategies involve having more than one email address (in the event that mail server goes down) and informing customers of the poor infrastructure and possible telecommunication problems in your email signature or on your website.
	Supporting Industry/services	Before adopting and using the Internet, it is important to investigate your local environment to determine if the necessary support services are in place to assist you. This involves website developers, technicians and also the financial institutions if you are considering offering online payments. It is also worth considering the cost of these services. Rural and remote enterprises may find that these services are not readily available. Where these services are not available or too costly and the necessary skills do not exist within the business then look to family and friends - someone you know may be able to assist you for a reduced price or for free. The key is however, is that they should have knowledge of the Internet. When paying for the development of a website, consider not only the upfront cost, but also the cost of changes to a website. If you would like to offer online payments, then consider the readiness of your financial institution to carry these out and also the readiness of your customer base.

Market Readiness	Customers	Different customers have different needs. For instance, many local customers in developing countries prefer to use the telephone to make a booking to negotiate the price. On the other hand customers from developed countries (where many people use the Internet) prefer to send an email. This can be categorised further, for instance, older wealthy customers are often quite happy to allow a travel agent to arrange their trip, while younger and independent travellers prefer to plan their trips and communicate with tourism operators themselves. This needs to be taken into consideration when deciding how you will use the Internet to reach your customers.
	Competitors	What are your competitors offering on the Internet? This refers to your local, interstate, and international competitors. It is common for STEs to examine the online activities of their competitors. This is likely to give you a good understanding on what you should be doing.
	Suppliers & partners	The Internet can also be used to engage with suppliers and partners. If you wish to interact with entities such as tourism intermediaries it is important that you at least use email, as there is evidence to suggest that tourism agencies prefer to use the Internet to communicate to keep costs down. This will also reduce your overall communication costs. This is especially true when communicating with overseas suppliers and partners. To interact with these entities even Internet access from a telecentre would suffice. Tools such as Internet Telephony (such as Skype) and Instant Messaging (such as MSN Messenger) are also useful tools that can be used to communicate with these entities. They are also free to use.
Organisational Readiness	Financial resources	The cost of adopting and using the Internet is usually one of the main reasons why small businesses do no use it. Although there will be a start up cost, there is evidence that in the long-run that using the Internet can bring costs down by reducing your reliance on traditional print media, reducing commissions paid to travel agents, and increasing customers. Some strategies are suggested here to assist you to reduce the cost. These are real examples of how tourism operators reduce the financial burden of Internet adoption: • Using friends or family for IT assistance, advice, and website development, or performing these tasks internally (rather than paying for professional assistance). • Using simple, low cost online activities such as email and basic web publishing that are inexpensive and require very little maintenance. • Hosting a website in another country where the cost of hosting is less. • Hosting a website with a free hosting service (at least until benefits materialised – then moving onto paid hosting), rather than paying for a hosting service. These are free hosting services that provide URLs, such as www.geocities.com/*your business*/. • Using the brand of third-party tourism websites (such as online intermediaries and tourism portals), and using the resources of these websites such as marketing power and booking engines. • Sharing resources with other tourism enterprises. For instance, an Ecuadorian lodge/tour operator collaborated with other similar tourism operators to develop a superior website promoting eco-lodges in Ecuador. By pooling their resources they were able to compete more aggressively, and promote themselves on a level that they could not afford through their individual websites. • For remote tourism operators, consider collaborating together to promote your tourism enterprises and the destination. • Accessing the Internet from a shared access point as opposed to purchasing all the necessary equipment to use the Internet internally. • Using government initiatives that can reduce the cost of purchasing the necessary equipment and develop a web presence.

	Employee skills	There are a number of issues to consider concerning skilled employees: • If you do not have employees that can manage the Internet aspect of the business then this may result in you taking care of the Internet component of the job and be drawn away from the daily operation of the business. • There may be a shortage of skilled people in the local area, meaning that you do not have a large pool to hire people from. • Skilled employees can be expensive. • Can your employees communicate well in English or the language of your customers? This is important if they are to manage the Internet aspect of the business. All these issues should be considered prior to Internet adoption because the will impact on how the Internet can be used.
Owner/Manager readiness		This area refers to your attitude towards adopting and using the Internet. This will impact on your ability to make the most of the Internet. Are you enthusiastic, committed and aware of the potential benefits? Evidence suggests that the attitude of the owner/manager is the key factor that leads to adoption.

The above table includes a list of recommendations for small tourism enterprises concerning ICT adoption. However, there are a number of recommendations that arise from this study that are applicable to governments and business support agencies. These have been discussed at length in terms of their influence concerning small tourism enterprises in Malaysia and Ecuador (see sections 7.1 to 7.6) and are only listed here:

- Provide greater training and coordination.
- Develop a framework to facilitate online transactions.
- Provide schemes to reduce the cost of purchasing/upgrading ICT equipment.
- Strengthen ICT infrastructure.
- Build ICT education.
- Promote e-tourism through online tourism portal.
- Coordinate the development of clusters of remote tourism enterprises.

8.1.3 Concluding remarks

The study was conducted over the course of three years and spanned three continents. In the beginning the researcher began with the aim of developing a framework for e-commerce adoption in developing countries. The thought for the project was conceived in 2003, a year the researcher spent time living, working, and traveling in developing countries.

This study contributes to the literature in this under researched area. The final framework although designed for STEs is likely to be of equal use to researchers, development consultants, and policy makers. Table 36 provides some guidelines for STEs to assist them to make decisions about e-commerce.

Although this was not a comparative study, it is impossible not to notice the differences as well as the similarities between these two diverse countries. This was more evident in the discussion of the e-readiness

factors. One area that stands out is that of the divergence in government readiness. It has been observed on numerous occasions that the STEs in Malaysia enjoyed more favorable policies than their counterparts in Ecuador. Another finding of this study is the importance of the role of owner/managers in overcoming shortcomings and contributing to e-readiness. Also, market forces emerged as a major catalyst for change, reasserting that tourism is an industry that is dominated increasingly by the use of the Internet – a fact that has not been recognised in the context of developing countries.

In Phase Two the researcher was alert to the possibility of researching the perspective of 'Internet enthusiasts', and the bias this possibility introduced (this has been pointed out on more than one occasion). However, irrespective of the selection method applied, it is an almost impossible consequence to avoid the perspectives of this group emerging, especially when contacting participants via the Internet (Menou 1999). At the same time, the researcher believes that this is where the strength and utility of this study lies. By targeting online enterprises a number of concrete strategies have emerged from the qualitative data that serve as an example for other small tourism operators seeking to adopt e-commerce.

8.1.4 Contribution

Has this thesis made a significant contribution to the existing body of knowledge? The author believes that it has. It has been observed that small enterprises in developing countries have received little attention regarding the adoption of ICTs. It is important to note that this study is particularly relevant given the focus on bridging the digital divide, the Millennium Development Goals (MDGs)[14], the impact and focus of tourism for development, and the role of small businesses generally in developing economies.

Previous research targeting e-commerce in businesses is either lacking in detail or has a 'big' business focus and typically concentrate on developed countries. Small businesses in developing countries have different needs. This research has involved the development of a framework. In addition to the framework a number of other significant contributions to research have emerged through the discussion of the research. Also, the researcher has published a number articles as a result of the work described in this thesis and the work has been presented at a number of international forums (Appendix A contains a list of publications).

The Internet is increasingly becoming an essential tool in the tourism industry. Along with the opportunities it offers, it presents significant challenges. This study shared the experiences of tourism operators in Malaysia and Ecuador. By doing so, this study adds to the embryonic body of research in this field, and has raised a number of questions for future research. It is argued that small business research should be practical (Burgess 2002). This study provided insight into the reality of e-commerce adoption and offered a number of practical implications for small tourism operators and researchers interested in ICT and development. A number of transferable lessons emerged from the qualitative data that can be applied to other STEs. Armed with such knowledge small they are in a better position to adopt e-commerce.

[14] The MDGs were discussed in Chapter Two.

8.1.5 Final note

By combining so many different elements – developing countries, tourism, e-commerce, small business and tourism, could this study be viewed as to ambitious? At the start it probably was. However, the expert panel helped focus the scope of the project (in particular suggesting that one aspect be omitted). This allowed the project to become achievable and the study to become more rigorous.

In hindsight, the study was an adventure, involving short periods living in two foreign countries. The researcher believes that this thesis stands by itself as a doctoral thesis. The framework has been presented and discussed and a tool for small enterprises has been developed based on the theoretical work (although it still needs some work and its practical application can be a project on its own, an idea the researcher wishes to pursue in post-doctoral research). In its current form the framework presented in this thesis is very useful for small enterprises as well as researchers, development consultants, and even policy makers.

References

Abhilash, C. M. 2002, 'E-Commerce Law in Developing Countries: An Indian Perspective', *Information & Communication Technology Law,* vol. 11, no. 3, p. 2002.

Acs, Z. 2006, 'How is entrepreneurship good for economic growth?' *innovations,* vol. Winter 2006, pp. 97-107.

Adler, M. & Ziglio, E. 1996, *Gazing into the Oracle: The Delphi method and its application to social policy and public health*, Jessica Kingsley Publishers, Bristol, Pennsylvania.

Agbeibor, J., Winfred 2006, 'Pro-poor economic growth: Role of small and medium sized enterprises', *Journal of Asian Economics,* vol. 17, no. 1, pp. 35-40.

Akkeren, J. v. & Cavaye, A. 1999, 'Factors affecting the adoption of Internet technologies by small business in Australia - an empirical study', in *Proceedings of the Information Outlook 1999 (IO'99)*, ed. P. C. Dr Leoni Warne, Andrew Freeman, Canberra, ACT.

Alavi, M. & Carlson, P. 1992, 'A review of MIS research and disciplinary development', *Journal of Management Information Systems,* vol. 8, no. 4, pp. 45-62.

Aljifri, H. A., Pons, A. & Collins, D. 2003, 'Global e-commerce: a framework for understanding and overcoming the trust barrier', *Information Management,* vol. 11, no. 3, pp. 130-138.

Al-Qirim, N. A. Y. 2004, 'A framework for electronic commerce research in small to medium-sized enterprises', in N. A. Y. Al-Qirim, (ed.) *Electronic commerce in Small to Medium-Sized Enterprises: Frameworks, Issues and Implications*, Idea Group, Hershley, PA, USA, pp. 1-16.

Al-Shaikh, F. N. 1998, 'Factors for small business failure in developing countries', *Advances in Competitiveness Research,* vol. 6, no. 1, pp. 75-86.

Andam, Z. R. 2003, *e-Commerce and e-Business: Asia-Pacific e-Primers Series*, Available: [http://eprimers.apdip.net/series/info-economy/e-comm.pdf] (June 10, 2005).

Angehrn, A. 1997, 'Designing mature Internet business strategies: the ICDT model', *European Management Journal,* vol. 12, no. 4, pp. 361-369.

APEC 2000, *APEC Readiness Initiative. E-Commerce Readiness Assessment Guide*, Available: [http://www.internetpolicy.net/readiness/readiness_guide_5.pdf] (January 15, 2006).

Ashley, C., Roe, D. & Goodwin, H. 2001, *Pro-Poor Tourism Strategies: Making Tourism Work For The Poor - a review of experience*, London: Overseas development institute.

Asia Foundation. 2005, *Regional survey of SME's use of ecommerce in Indonesia, the Philippines, Sri Lanka and Thailand*, Available: [http://www.asiafoundation.org/ICT/surveys.html] (December 12, 2005).

Austin, J. E. 1990, *Managing in developing countries : strategic analysis and operating techniques*, New York : Free Press ; London : Collier Macmillan.

Bajaj, K. K. & Nag, D. 1999, *E-commerce : the cutting edge of business*, Tata McGraw-Hill, New Delhi.

Bala, P., Harris, R. W. & Songan, P. 2004, 'E Bario Project: In search of a methodology to provide access to information communication technologies for rural communities in Malaysia', in S. Marshall, X. H. Yu & W. Taylor, (eds.), *Using community informatics to transform regions*, Idea Group Pub., Hershey, PA, pp. 115-131.

Bannock, G. 2005, *The economics and management of small business : an international perspective*, Routledge, New York.

Bannock, G., Baxter, R. E. & Davis, E. 1992, *The Penguin dictionary of economics,* 5th edn, Penguin Books, London, England ; New York, N.Y., USA.

Barbour, R. S. & Kitzinger, J. 1999, 'Introduction: the challenge and promise of focus groups', in R. S. Barbour & J. Kitzinger, (eds.), *Developing focus group research : politics, theory, and practice*, SAGE Publications, London ; Thousand Oaks, pp. 1-20.

Barnard, L. & Wesson, J. L. 2003, 'Usability issues for E-commerce in South Africa: an Empirical Investigation', in *Proceedings of SAICSIT 2003*, pp. 258-267.

Bedi, A. 1999, *The Role of Information and Communication Technologies in Economic Development – A partial Survey.*, Center for Development Research, Universität Bonn, Bonn.

Bhatia, S. & IBM Singapore. 2001, *e-ASEAN Readiness Assessment*, Available: [http://www.itu.int/asean2001/documents/pdf/Document-28.pdf] (October 28, 2006).

Birch, A., Gerbert, P. & Schneider, D. 2000, *The Age of E-Tail*, Capstone Publishing, UK.

Blaikie, N. W. H. 2000, *Designing social research : the logic of anticipation*, Polity Press, Malden, MA.

Booth, A. 1999, *Making the Internet Work for Your Business*, Allen-Unwin, New South Wales, Australia.

Braun, P. 2005, 'Creating value to tourism products through tourism networks and clusters: uncovering destination value chains', in *2005 OECD & Korea Conference, Global Tourism Growth: A Challenge for SMEs*, Gwangju, Korea.

Bridges.org 2005, *E-readiness Assessment Tools Comparison*, Available: [www.bridges.org] (March 20, 2006).

Briedenhann, J. & Wickens, E. 2004, 'Tourism routes as a tool for the economic development of rural areas--vibrant hope or impossible dream?' *Tourism Management,* vol. 25, no. 1, pp. 71-79.

Brislin, R. W. 1986, 'The wording and translation of research instruments', in W. J. Lonner & J. W. Berry, (eds.), *Field methods in cross-cultural research*, vol. 8, Sage Publications Inc., California, pp. 137-164.

Bryman, A. 2004, *Social research methods,* 2nd edn, Oxford University Press, Oxford ; New York.

Buhalis, D. 1998, 'Strategic use of information technologies in the tourism industry', *Tourism Management,* vol. 19, no. 5, pp. 409-421.

Buhalis, D. 1999, 'Information technology as a strategic tool for sustainable tourism development', *The Courier,* vol. no. 175, no. May-June, pp. 55-57.

Buhalis, D. 2004, 'eAirlines: strategic and tactical use of ICTs in the airline industry', *Information & Management,* vol. 41, no. 7, pp. 805-825.

Buhalis, D. & Main, H. 1998, 'Information technology in peripheral small and medium hospitality enterprises: strategic analysis and critical factors', *International Journal of Contemporary Hospitality Management,* vol. 10, no. 5, pp. 198-202.

Bulmer, M. 1983a, 'Interviewing and field organization', in M. Bulmer & D. P. Warwick, (eds.), *Social research in developing countries : surveys and censuses in the Third World*, UCL Press, London, pp. 205-217.

Bulmer, M. 1983b, 'Sampling', in M. Bulmer & D. P. Warwick, (eds.), *Social research in developing countries : surveys and censuses in the Third World*, UCL Press, London, pp. 91-101.

Bulmer, M. & Warwick, D. P. 1983, 'Data collection', in M. Bulmer & D. P. Warwick, (eds.), *Social research in developing countries : surveys and censuses in the Third World*, UCL Press, London, pp. 149-160.

Bunnell, T. & Coe, N. M. 2005, 'Re-fragmenting the 'political': Globalization, governmentality and Malaysia's Multimedia Super Corridor', *Political Geography,* vol. 24, no. 7, pp. 831-849.

Burgess, S. 1998, 'Information Technology in Small Business in Australia: A Summary of Recent Studies', in *United States Association for Small Business and Entrepreneurship 12th Annual Conference Proceedings*, Northern Illinois University, Clearwater, pp. 283-291.

Burgess, S. 2002, *Business-to-Consumer Interactions on the Internet: A Model for Small Businesses*, PhD Thesis. School of Information Management and Systems, Monash University, Melbourne, Australia.

Burgess, S. & Schauder, D. 2001, 'Web Site Development options for Australian Small Businesses', in *Resources Management Association International Conference Proceedings*, Toronto, Canada.

Burgess, S. & Wenn, A. 2005, 'Information technology in small business: a study of small businesses in Melbourne, Australia', in M. G. Hunter, S. Burgess & A. Wenn, (eds.), *Small Business and Information Technology: Research Techniques and International Case Studies*, Heidelberg Press, Heidelberg, Vic., pp. viii, 144.

Buultjens, J., Tiyce, M. & Gale, D. 2003, 'Sustainable Forest-Based Tourism in the North East New South Wales, Australia: A Problematic Goal', *Tourism Review International,* vol. 7, no. 1, pp. pp1-12.

Bytes for All. 2007, *ICT gets 21pc higher allocation in national budget*, Available: [http://bangladeshictpolicy.bytesforall.net/?q=] (June 21, 2007).

Carroll, B. & Siguaw, J. 2003, 'The evolution of electronic distribution: Effects on hotels and intermediaries', *The Cornell Hotel and Restaurant Administration Quarterly,* vol. 44, no. 4, pp. 38-50.

Cavana, R. Y., Sekaran, U. & Delahaye, B. L. 2001, *Applied business research : qualitative and quantitative methods*, John Wiley & Sons Australia, Milton, Qld.

Cecchini, S. & Scott, C. 2003, 'Can information and communications technology applications contribute to poverty reduction? Lessons from rural India', *Information Technology for Development,* vol. 10, pp. 73-84.

Central Intelligence Agency. 2007a, *The World Fact Book*, Available: [https://www.cia.gov/library/publications/the-world-factbook/geos/ec.html] (June 22, 2007).

Central Intelligence Agency. 2007b, *The World Fact Book*, Available: [https://www.cia.gov/library/publications/the-world-factbook/geos/my.html] (August 10, 2007).

Chacko, J. G. & Harris, G. 2006, 'Information and Communication Technology and Small, Medium, and Micro Enterprises in Asia-Pacific—Size Does Matter', *Information Technology for Development,* vol. 12, no. 2, pp. 175-177.

Chaston, I. 2004, *Small Business E-commerce Management*, Palgrave McMillan.

Chau, S. & Turner, P. 2005, 'Stages or phases? Insights into the utilisation of e-commerce based on the experience of thirty-four Australian small businesses', in M. G. Hunter, S. Burgess & A. Wenn, (eds.), *Small business and information technology - research techniques and international case studies*, Heidelberg Press, Heidelberg, Victoria Australia, pp. 93-112.

Choucri, N., Maugis, V., Madnick, S. & Siegel, M. 2003, *Global E-readiness - For What?*, Available: [http://ebusiness.mit.edu/] (March 14, 2005).

Chyau, C. 2005, *Why Should Countries Embed ICTs into SME Policy*, Available: [http://www.apdip.net/apdipenote/4.pdf] (October 2, 2006).

Clark, T. 2000, 'Electronic Commerce in China', in F. Sudweeks & C. T.Romm, (eds.), *Doing business on the Internet: Opportunities and pitfalls*, pp. 233-236.

Cloete, E., Courtney, S. & Fintz, J. 2002, 'Small businesses' acceptance and adoption of e-commerce in the Western-Cape Province of South-Africa', *The Electronic Journal on Information Systems in Developing Countries,* vol. 10, no. 4, pp. 1-13.

Colle, R. D. 2005, 'Memo to telecentre planners', *EJISDC,* vol. 21, no. 1, pp. 1-13.

Colle, R. D. & Roman, R. 2005, 'Towards demand-driven community telecentres', in R. M. Davison, (ed.) *Information systems in developing countries : theory and practice*, City University of Hong Kong Press, Hong Kong, pp. 114-129.

Collins, C., Buhalis, D. & Peters, M. 2003, 'Enhancing SMTEs' business performance through the Internet and e-learning platforms', *Education Training,* vol. 45, no. 8, pp. 483-494.

Collins, J. S. & Karush, G. 2004, 'The role of e-commerce in scaling up small business in developing economies: a B2B information architecture model and IT infrastructure', in M. Sami & G. Karush, (eds.), *International Business & Information Technology*, Routledge, New York, pp. 161-178.

Coppock, K., Maclay, C. & Calero, L. A. 2002, 'Ecuador Country Profile', in G. S. Kirkman, P. K. Cornelius, J. D. Sachs & K. Schwab, (eds.), *The Global Information Technology Report 2001-2002 Readiness for the Networked World*, Oxford, New York, pp. 194-195.

Costa, E. d. 2001, *Global E-commerce Strategies for Small Businesses*, MIT Press, Cambridge, Mass. ; London.

CountryWatch 2006, *Ecuador 2006 Country Review*, Available: [www.countrywatch.com] (December 9, 2006).

Croes, R. R. & Tesone, D. V. 2004, 'Small firms embracing technology and tourism development: evidence from two nations in Central America', *International Journal of Hospitality Management,* vol. 23, pp. 557-564.

Crotty, M. 1998, *The foundations of social research : meaning and perspective in the research process*, Allen & Unwin, St Leonards, NSW.

Cullen, R. 2001, 'Addressing the digital divide', *Online Information Review,* vol. 25, no. 5, pp. 311-320.

Dada, D. 2006, 'E-readiness for developing countries: moving the focus from the environment to the users', *Electronic Journal of Information Systems in Developing Countries,* vol. 27, no. 6, pp. 1-14.

Dakley, N. C. 1975, 'Toward a Theory of Group Estimation', in H. A. Linstone & M. Turoff, (eds.), *The Delphi Method techniques and Applications*, Addison-Wesley Publishing Company Inc, Reading, Masachusetts, pp. 236-261.

Daly, J. A. 2000, 'Studying the impacts of the Internet without assuming technological determinism', *Aslib Proceedings,* vol. 52, pp. 285-300.

Davidson, A., Burgess, S. & Sellitto, C. 2006, 'An investigation of SMTE Web Site usage in Australia: Implications for E-commerce adoption and planning processes', in N. Al-Qirim, (ed.) *Global Electronic Business Research: Opportunities and Directions*, Idea Group Publishing, Hershey, PA, pp. 88-113.

Davidson, A. P. & Yu, I. 2005, 'The Internet and the occidental tourist: an analysis of Taiwan's tourism web sites from the perspective of western tourists', *Information Technology & Tourism,* vol. 7, no. 2, pp. 91-102.

Davis, F. D. 1989, 'Perceived usefulness, perceived ease of use, and user acceptance of information technology.' *MIS Quarterly,* vol. 13, no. 3, pp. 319-340.

Dawson, C. 2002, *Practical research methods : a user-friendly guide to mastering research techniques and projects*, How To Books, Oxford.

De Boer, S. J. & Walbeek, M. M. 1999, 'Information technology in developing countries: a study to guide policy formulation', *International Journal of Information Management,* vol. 19, no. 3, pp. 207-218.

Delbecq, A. L., VandeVen, A. H. & Gustafson, D. H. 1975, *Group techniques for program planning : a guide to nominal group and Delphi processes.*, Scott Foresman, Glenview, Ill.

DeLone, W. & McLean, E. 1992, 'Information Systems Success: The

Quest for the Dependent Variable', *Information Systems Research,* vol. 3, no. 1, pp. 60-95.

Drew, S. 2003, 'Strategic Uses of E-Commerce by SMEs in the East of England', *European Management Journal,* vol. 21, no. 1, pp. 79-88.

Duncombe, R. 1999, *The Role of Information and Communication Technology for Small, Medium and Micro Enterprise Development in Botswana*, Interim Results of a Research Project Supported by the UK Department for International Development (DFID).

Duncombe, R. & Heeks, R. 2001, *Information and Communication Technology: A Handbook for Entrepreneurs in Developing Countries*, UK Department for International Development.

Duncombe, R. & Heeks, R. 2002, 'Enterprise across the digital divide: information systems and rural microenterprise in Botswana', *Journal of International Development,* vol. 14, no. 1, pp. 61-74.

Duncombe, R., Heeks, R., Kintu, M. J. R. & Nakangu, B. 2004, *eCommerce for small enterprise development a handbook for enterprise support agencies in Uganda*, Institute for Development Policy and Management.

Duncombe, R., Heeks, R., Kintu, R., Nakangu, B. & Abraham, S. 2005, *eCommerce for Small Enterprise Development A Handbook for Entrepreneurs in Developing Countries*, Institute for Development Policy and Management, Manchester.

Dutta, N. 1988, 'Management of business activities and development of small – and medium size enterprises in developing countries', *Development & south-south cooperation, small and medium sized enterprises in developing countries,* vol. 3, no. 6, pp. 29-39.

Dutta, S. 2002, 'The Importance of Organisational Leadership for Creating Technology Excellence', in G. S. Kirkman, P. K. Cornelius, J. D. Sachs & K. Schwab, (eds.), *The Global Information Technology Report 2001-2002 Readiness for the Networked World*, Oxford, New York, pp. 54-61.

Dutta, S. & Lopez-Claros, A. 2005, *The Global Information Technology Report, 2004-2005 : Efficiency in an increasingly connected world*, Palgrave MacMillan, New York.

Economist 2005a, 'Confused in the Andes.' *Economist J1 - Economist,* vol. 377, no. 8449, p. 40. Retrieved: 2005/10/22/, from Article database.

Economist 2005b, 'Free-for-oil.' *Economist J1 - Economist,* vol. 376, no. 8441, p. 33. Retrieved: 2005/08/27/, from Article database.

Economist 2006, 'Banana republic.' *Economist J1 - Economist,* vol. 381, no. 8500, p. 48. Retrieved: 2006/10/21/, from Article database.

Economist 2007, 'Tightening his grip.' *Economist Economist J1 - Economist,* vol. 383, no. 8525, pp. 39-40. Retrieved: 2007/04/21/, from Article database.

Efendioglu, A. M. & Yip, V. F. 2004, 'Chinese culture and e-commerce: an exploratory study', *Interacting with Computers,* vol. 16, no. 1, pp. 45-62.

Eisenhardt, K. M. 1989, 'Building theories from case study research', *The Academy of Management Review,* vol. 14, no. 4, pp. 532-550.

EIU. 2004, *Economist Intelligence Unit E-readiness Rankings 2004*, Available: [http://graphics.eiu.com/files/ad_pdfs/ERR2004.pdf] (June 4, 2006).

EIU. 2005, *Economist Intelligence Unit The 2005 E-readiness Rankings*, Available: [http://www.eiu.com/site_info.asp?info_name=eiu_2005_e_readiness_rankings] (December 4, 2005).

EIU. 2007, *The 2007 e-readiness rankings: Raising the bar*, Economist Intelligence Unit, Written in co-operation with The IBM Institute for Business Value.

Ezzy, D. 2002, *Qualitative analysis : practice and innovation*, Allen & Unwin, Crows Nest, N.S.W.

Faggiani, K. S. 2005, 'Identifying and overcoming barriers to the use of information technology by small business', in M. G. Hunter, S. Burgess & A. Wenn, (eds.), *Small business and information technology - research techniques and international case studies*, Heidelberg Press, Heidelberg, Victoria Australia, pp. 37-53.

Flick, U. 2006, *An introduction to qualitative research,* 3rd edn, Sage Publications, London.

Frey, S., Schegg, R. & Murphy, J. 2003, 'E-mail customer service in the Swiss hotel industry.' *Tourism & Hospitality Research,* vol. 4, no. 3, pp. 197-212.

Fuchs, C. & Horak, E. 2006, 'Africa and the digital divide', *Telematics and Informatics,* vol. In Press, Corrected Proof.

Fuller, T. 2000, 'Will small become beautiful?' *Futures,* vol. 32, no. 1, pp. 79-89.

Furuholt, B., Kristiansen, S. & Wahid, F. 2005, 'Information dissemination in a developing society: Internet cafe users in Indonesia', *EJISDC,* vol. 22, no. 3, pp. 1-16.

Galperin, H. 2005, 'Wireless networks and rural development: Opportunities for Latin America', *Information Technologies and International Development,* vol. 2, no. 3, pp. 47-56.

Gammack, J., Asia Pacific Economic Cooperation (Organization). Tourism Working Group., Griffith University School of Management. & APEC International Centre for Sustainable Tourism. 2004, *Development needs of small to medium size tourism businesses : a report prepared for APEC Tourism Working Group*, School of Management Griffith Business School Griffith University, [Nathan] Qld.

Gartner, W. C. 2004, 'Factors affecting small firms in tourism: a Ghanaian perspective', in R. Thomas, (ed.) *Small firms in tourism : international perspectives*, Elsevier Ltd, Oxford, pp. 35-52.

Getz, D. & Carlsen, J. 2005, 'Family business in tourism: state of the art', *Annals of Tourism Research,* vol. 32, no. 1, pp. 237-258.

Ghimire, B. K. 2001, 'Regional tourism and south-south economic cooperation', *The Geographical Journal,* vol. 167, no. 2, pp. 99-110.

Giamartino, G. A. 1991, 'Will small business be the answer for developing economies?' *Journal of Small Business Management,* vol. 26, no. 3, pp. 68-70.

Gibbs, A. 2000, 'Focus Groups', *Social Research Update*, no. 19 Winter 1997.

Glinkina, S. 2003, 'Small business, survival strategies and the shadow economy', in R. J. McIntyre & B. Dallago, (eds.), *Small and medium enterprises in transitional economies*, Palgrave McMillan, Hampshire, pp. 51-64.

Gnaniah, J., Yeo, A., Songan, P., Zen, H. & Hamid, K. A. 2004, 'A comparison on the implementation approaches for the e-Bario and e-Bedian projects', in *Work with Computing Systems*, eds. H.M. Khalid, M.G. Helander & A. W. Yeo, Damai Sciences, Kuala Lumpur, pp. 286-291.

Golden, W., Hughes, M. & Ruane, L. 2004, 'Traits of successfully e-enabled Irish SMEs', in N. A. Y. Al-Qirim, (ed.) *Electronic commerce in Small to Medium-Sized Enterprises: Frameworks, Issues and Implications*, Idea Group, Hershley, PA, USA, pp. 165-179.

Goldstein, A. & O'Connor, D. 2000, *E-commerce for Development: Prospects and Policy Issues*, OECD Development Centre, Paris.

Gomm, R. 2004, *Social research methodology : a critical introduction*, Palgrave Macmillan, Basingstoke.

Goodman, S., Kelly, T., Minges, M. & Press, L. 2000, 'International perspectives: computing at the top of the world', *Communications of the ACM,* vol. 43, no. 11, pp. 23--27.

Gordon, R. G., Jr 2005, *Ethnologue: Languages of the World,* Fifteenth edn, SIL International, Dallas, Tex.

Grandon, E. & Pearson, J. M. 2003, 'Strategic value and adoption of electronic commerce: an empirical study of Chilean small and medium businesses', *Journal of Global Information Technology Management,* vol. 6, no. 3, pp. 22-44.

Gratzer, M. & Winiwarter, W. 2003, 'A framework for competitive advantage in eTourism', in *ENTER 2003*, Springer-Verlag, Helsinki.

Gretzel, U. & Fesenmaier, D. R. 2001, 'Defining Internet Readiness for the Tourism Industry', in H. Werthner & M. Bichler, (eds.), *Lectures in E-Commerce*, Springer, Wien, pp. 77-103.

Guasch, J. C. & Ugas, L. 2007, 'The digital gap in Maracaibo city in Venezuela', *Telematics and Informatics,* vol. 24, no. 1, pp. 41-47.

Gunasekaran, V. & Harmantzis, F. C. 2007, 'Emerging wireless technologies for developing countries', *Technology in Society,* vol. 29, no. 1, pp. 23-42.

Gupta, H., Jones, E. & Coleman, P. 2004, 'How do Welsh tourism-SME websites approach customer relationship management?' in A. J. Frew, (ed.) *Information and communication technologies in tourism 2004 : proceedings of the international conference in Cairo, Egypt, 2004*, Springer, Wien, Austria, pp. 424-433.

Hall, C. M. & Rusher, K. 2004, 'Risky lifestyles', in R. Thomas, (ed.) *Small firms in tourism : international perspectives*, Elsevier Ltd, Oxford, pp. 83-97.

Hanh, N. H. 2002, "E-unreadiness' blamed on poor web site design', In *The Vietnam Investment Review*.

Hantrais, L. & Mangen, S. 1996, 'Method and Management of Cross-National Social Research', in L. Hantrais & S. P. Mangen, (eds.), *Cross-national research methods in the social sciences*, Pinter, London ; New York, pp. 1-12.

Harris, R. W. 2005, 'Explaining the success of rural Asian telecentres', in R. M. Davison, (ed.) *Information systems in developing countries : theory and practice*, City University of Hong Kong Press, Hong Kong, pp. 83-100.

Harris, R. W., Bala, P., Songan, P. & Khoo, E. 2001, 'Challenges and Opportunities in Introducing Information and Communication Technologies to the Kelabit Community of North Central Borneo', *New Media and Society,* vol. 3, no. 3, pp. 271-296.

Harvey, L. J. & Myers, M. D. 2002, 'Scholarship and practice: the contribution of ethnographic research methods to bridging the gap', in M. D. Myers & D. E. Avison, (eds.), *Qualitative research in information systems: a reader*, Sage Publications, London, pp. 169-180.

Harvie, C. & Lee, B.-C. 2002, *The role of SMEs in national economies in East Asia*, Edward Elgar, Cheltenham, UK.

Hausman, A. 2005, 'Innovativeness among small businesses: Theory and propositions for future research', *Industrial Marketing Management,* vol. 34, no. 8, pp. 773-782.

Hawk, S. 2004, 'A comparison of B2C e-commerce in developing countries', *Electronic Commerce Research,* vol. 4, no. 3, pp. 181-199.

Hill, J. & Wright, L. T. 2001, 'A qualitative research agenda for small to medium-sized enterprises', *Marketing Intelligence & Planning,* vol. 19, no. 6, pp. 432-443.

Hine, C. 2000, *Virtual ethnography*, Sage, London.

Hinson, R. & Sorensen, O. 2006, 'E-business and small Ghanaian exporters: Preliminary micro firm explorations in the light of a digital divide', *Online Information Review,* vol. 30, no. 2, pp. 116-138.

Hofstede, G. H. 1980, *Culture's consequences : international differences in work-related values*, Sage Publications, Beverly Hills, Calif.

Hofstede, G. H. 1991, *Cultures and organizations : software of the mind*, McGraw-Hill, London ; New York.

Humphrey, J. 2002, *Business-to-business e-commerce and access to global markets: exclusive or inclusive outcomes?*, Available: [http://www.gapresearch.org/production/jhb2bgvcfinal.pdf] (May 10, 2004).

Hunter, M. G., Burgess, S. & Wenn, A. 2005, 'The use of information systems by small business: an international perspective', in M. G. Hunter, S. Burgess & A. Wenn, (eds.), *Small business and*

information technology - research techniques and international case studies, Heidelberg Press, Heidelberg, Victoria Australia, pp. 3-15.

Iacovou, C. L., Benbasat, I. & Dexter, A. S. 1995, 'Electronic data interchange and small organisations: adoption and impact of technology', *MIS Quarterly,* vol. December, pp. 465-485.

Indjikian, R. & Siegel, D. S. 2005, 'The Impact of Investment in IT on Economic Performance: Implications for Developing Countries', *World Development,* vol. 33, no. 5, pp. 681-700.

Inkpen, G. 1994, *Information Technology For Travel and Tourism*, Pitman, London.

Internet World Stats. 2007, Available: [http://www.internetworldstats.com/stats2.htm] (May 25, 2007).

ITU 2000, *Internet From the Top of The World: Nepal Case Study*, Available: [http://web/osg/spu/casestudies/index.html] (May 20, 2004).

ITU 2005, *ICT Statistics 2004*, Available: [http://www.itu.int/ITU-D/ict/statistics/] (December 20, 2005).

James, J. 2002, 'Low-cost information technology in developing countries: current opportunities and emerging possibilities', *Habitat International,* vol. 26, no. 1, pp. 21-31.

James, J. 2003, 'Sustainable Internet access for the rural poor? Elements of an emerging Indian model', *Futures,* vol. 35, no. 5, pp. 461-472.

Jeffcoate, J., Chappell, C. & Feindt, S. 2002, 'Best practice in SME adoption of e-commerce', *Benchmarking: An International Journal,* vol. 9, no. 2, pp. 122-132.

Jeffrey, J. 2002, 'Low-cost information technology in developing countries: current opportunities and emerging possibilities', *Habitat International,* vol. 26, no. 1, pp. 21-31. Retrieved: 2002/1, from

Jennex, M. E., Amoroso, D. & Adelakun, O. 2004, 'E-commerce infrastructure success factors for small companies in developing economies', *Electronic Commerce Research,* vol. 4, no. 3, pp. 263-286.

Jennex, M. E. & Amoroso, D. L. 2002, 'e-Business and Technology Issues for Developing Economies: A Ukraine Case Study', *Electronic Journal of Information Systems in Developing Countries,* vol. 10, no. 5, pp. 1-14.

Johanson, G. 2002, 'Ethics in Research', in K. Williamson, (ed.) *Research Methods For Students, Academics and Professionals*, Centre for Information Studies, Charles Sturt University, Wagga Wagga, NSW, pp. 67-84.

Jones, E. L. 1983, 'The courtesy bias in South-East Asian surveys', in M. Bulmer & D. P. Warwick, (eds.), *Social research in developing countries : surveys and censuses in the Third World*, UCL Press, London, pp. 253-260.

Jones, M. & Alony, I. 2007, 'The Cultural Impact of Information Systems –

Through the Eyes of Hofstede – A Critical Journey', *Issues in Informing Science and Information Technology,* vol. 4, pp. 407-419.

Jussawalla, M. 1999, 'The impact of ICT convergence on development in the Asian region', *Telecommunications Policy,* vol. 23, no. 3-4, pp. 217-234.

Jutla, D., Bodorik, P. & Dhaliwal, J. 2002, 'Supporting the e-business readiness of small and medium-sized enterprises: approaches and metrics', *Internet Research: Electronic Networking Applications and Policy,* vol. 12, no. 2, pp. 139-164.

Kamel, S. & Hussein, M. 2002, 'The emergence of e-commerce in a developing nation: Case of Egypt', *Benchmarking: An International Journal,* vol. 9, no. 2, pp. 146-153.

Kamel, S. & Hussein, M. 2004, 'King Hotel goes online: The case of a medium enterprise in using e-commerce', *Journal of Electronic Commerce in Organisations,* vol. 2, no. 4, pp. 101-115.

Karake-Shalhoub, Z. & Al Qasimi, L. 2006, *The diffusion of e-commerce in developing economies : a resource-based approach*, Edward Elgar, Cheltenham ; Northampton, MA.

Karanasios, S., Sellitto, C., Burgess, S., Johanson, G., Schauder, D. & Denison, T. 2006, 'The role of the Internet in building capacity: small businesses and community based organisations', in *The 7th International We-B Conference 2006*, eds. C. Sellitto & A. Wenn, Victoria University, Melbourne, Australia, Melbourne, Australia, pp. 15-30.

Kasusse, M. 2005, 'Bridging the digital divide in Sub-Saharan Africa: The rural challenge in Uganda', *The International Information & Library Review,* vol. 37, no. 3, pp. 147-158.

Kaufman, D. 2000, 'Promoting Your Web Site', In *Internet.au, Australia*, vol. March, pp. 45-49.

Khan, H. 2002, 'The best practices of e-commerce strategies for small and medium sized tourism enterprises in Singapore', in *Asia Pacific Economic Cooperation (APEC) International Tourism Symposium, E-Commerce and Tourism in the APEC Region*, Seoul, pp. 175-186.

Kirby, D. A. & Kaiser, S. 2002, 'Joint Ventures as an Internationalisation Strategy for SMEs', *Small Business Economics,* vol. 21, pp. 229-242.

Kirkman, G. S., Cornelius, P. K., Sachs, J. D. & Schwab, K. 2002, *The Global Information Technology Report, 2001-2002 : Readiness for the Networked World*, Oxford University Press, New York.

Kirsten, M. & Rogerson, C. M. 2002, 'Tourism, business linkages and small enterprise development in South Africa', *Development Southern Africa,* vol. 19, no. 1, pp. 29-59.

Kitchin, R. 1998, 'Towards geographies of cyberspace', *Progress in Human Geography,* vol. 22, no. 3, pp. 385-406.

Kock, N. & Lau, F. 2001, 'Information Systems Action Research: Serving Two Demanding Masters", *Information Technology & People (Special Issue on Action Research in Information Systems),* vol. 14, no. 1, pp. 6-11.

Kuan, K. K. Y. & Chau, P. Y. K. 2001, 'A perception-based model for EDI adoption in small businesses using a Technology-Organization-Environment framework', *Information & Management,* vol. 38, no. 8, pp. 507-521.

Kuwayama, M. 2001, *E-Commerce and export promotion policies for Small and Medium-Sized Enterprises: East Asian and Latin American Experiences*, International Trade and Integration Division, United Nations Publications, Santiago, Chile.

Lake, S. 2000, *E-Commerce and LDCs: Challenges for enterprises and governments paper presented at the E-Commerce and LDCs Roundtable, Kathmandu, Nepal.*, United Nations Conference on Trade and Development (UNCTAD).

Lal, K. 2005, 'Determinants of the adoption of e-business technologies', *Telematics and Informatics,* vol. 22, no. 3, pp. 181-199.

Lerner, M. & Haber, S. 2001, 'Performance factors of small tourism ventures: The interface of tourism, entrepreneurship and the environment', *Journal of Business Venturing,* vol. 16, no. 1, pp. 77-100.

Lertwongsatien, C., Wongpinunwatana, N. & Achakulwisut, A. 2004, 'Factors influencing electronic commerce adoption in small and medium businesses: an empirical study in Thailand', in N. A. Y. Al-Qirim, (ed.) *Electronic commerce in Small to Medium-Sized Enterprises: Frameworks, Issues and Implications*, Idea Group, Hershley, PA, USA, pp. 106-127.

Levy, M. & Powell, P. 2000, 'Information systems strategy for small and medium sized enterprises: an organisational perspective', *The Journal of Strategic Information Systems,* vol. 9, no. 1, pp. 63-84.

Liu, Z. 2000, 'Internet tourism marketing: Potential and constraints', in *Fourth International Conference "Tourism in Southeast Asia & Indo-China: Development, Marketing and Sustainability"*, Chiang

Mai, Thailand, pp. Fourth International Conference "Tourism in Southeast Asia & Indo-China: Development Marketing and Sustainability".

Lonely Planet. 2004, *Malaysia, Singapore & Brunei*, Lonely Planet Publications Pty Ltd.

Lonner, W. J. & Berry, J. W. 1986a, *Field methods in cross-cultural research*, Sage Publications, Beverly Hills.

Lonner, W. J. & Berry, J. W. 1986b, 'Sampling and Surveying', in W. J. Lonner & J. W. Berry, (eds.), *Field methods in cross-cultural research*, vol. 8, Sage Publications Inc., California, pp. 85-110.

López-Bassols, V. & Vickery, G. 2001, 'The policy debate on electronic commerce – the OECD's contribution', *TA-Datenbank-Nachrichten,* vol. 4, no. 10, pp. 21-29.

Lu, J. & Lu, Z. 2004, 'Development, Distribution and Evaluation of Online Tourism Services in China', *Electronic Commerce Research,* vol. 4, no. 3, pp. 221-239.

Ma, J. X., Buhalis, D. & Song, H. 2003, 'ICTs and Internet adoption in China's tourism industry', *International Journal of Information Management,* vol. 23, no. 6, pp. 451-467.

MacLean, D., Souter, D., Deane, J. & Lilley, S. 2002, *Louder Voices: Strengthening Developing Country Participation in International ICT Decision-Making*, A study by the Commonwealth Telecommunications Organisation and Panos London, London.

Malaysian Communications and Multimedia Commission. 2007, *Selected Facts and Figures Q1 2007*, Malaysian Communications and Multimedia Commission, Selangor.

Manaster, G. J. & Havighurst, R. J. 1972, *Cross-national research: social-psychological methods and problems*, Houghton Mifflin Company, Boston.

Mann, C. L. 2002, 'Electronic Commerce, Networked Readiness and Trade Competitiveness', in G. S. Kirkman, P. K. Cornelius, J. D. Sachs & K. Schwab, (eds.), *The Global Information Technology Report: Readiness for the networked world*, Oxford University Press, New York, pp. 90-103.

Manning, P. K. 1996, 'Information technology in the police context: the sailor phone', *Information Systems Research,* vol. 7, no. 1, pp. 52-62.

March, R. 1997, 'Diversity in Asian outbound travel industries: a comparison between Indonesia, Thailand, Taiwan, South Korea and Japan', *International Journal of Hospitality Management,* vol. 16, no. 2, pp. 231-238.

Marker, P., McNamara, K. & Wallace, L. 2002, *The significance of information and communication technologies for reducing poverty*, Department for International Development (DFID).

Martinsons, M. G. 2002, 'Electronic commerce in China: emerging success stories', *Information & Management,* vol. 39, no. 7, pp. 571-579.

Matambalya, F. & Wolf, S. 2001, *The Role of ICT for the Performance of SMEs in East Africa – Empirical Evidence from Kenya and Tanzania, ZEF – Discussion Papers on Development Policy No. 42*, Centre for Development Research, Bonn.

Matlay, H. 2004, 'Small Tourism Firms in e-Europe: Definitional, Conceptual and Contextual Considerations', in R. Thomas, (ed.) *Small firms in tourism : international perspectives*, Elsevier Ltd, Oxford, pp. 297-312.

Maxwell, J. A. 2002, 'Understanding and Validity in Qualitative Research', in M. B. Miles & A. M. Huberman, (eds.), *The qualitative researcher's companion*, Sage Publications, Thousand Oaks ; London, pp. 37-64.

Maxwell, J. A. 2005, *Qualitative research design : an interactive approach,* 2nd edn, Sage Publications, Thousand Oaks, CA.

Mazzarol, T. & Choo, S. 2003, 'A study of the factors influencing the operating location decisions of small firms', *Property Management,* vol. 21, no. 2, pp. 190-208.

Mbambo, B. & Cronje, J. C. 2002, 'The Internet as an information conduit in developing countries: an investigation of World Wide Web usability amongst small and medium textile enterprises in Botswana', *Aslib Proceedings: new information perspectives,* vol. 54, no. 4, pp. 251-259.

McConnell 2000, *Risk E-Business: Seizing the Opportunity of Global E-Readiness*, McConnell International.

McIntyre, R. J. 2003, 'Small enterprises in transition economies: causal puzzles and policy-relevant research', in R. J. McIntyre & B. Dallago, (eds.), *Small and medium enterprises in transitional economies*, Palgrave McMillan, Hampshire, pp. 1-18.

Mead, D. C. & Liedholm, C. 1998, 'The dynamics of micro and small enterprises in developing countries', *World Development,* vol. 26, no. 1, pp. 61-74.

Mehta, S. & Kalra, M. 2006, 'Information and Communication Technologies: A bridge for social equity and sustainable development in India', *The International Information & Library Review: International Information Issues: Selected Papers from the American Society for Information Science and Technology Special Interest Group,* vol. 38, no. 3, pp. 147-160.

Mekonnen, G. 2001, 'Information Technology: Its Uses in Tourism Industry', in *A Conference on Information Communication Technologies and Development*, Addis Ababa.

Menou, M. 1999, 'Impact of the Internet: some conceptual and methodological issues, or how to hit a moving target behind the smoke screen', in *ASLIB*, eds. D. Nicholas & I. Rowlands, Windsor Park.

Mesher, G. M. & Zajac, E. E. 1997, 'The political economy of telecommunications in Malaysia and Singapore: A structure-conduct-performance comparative analysis', *Information Economics and Policy,* vol. 9, no. 3, pp. 183-202.

Molla, A. & Licker, P. S. 2005, 'eCommerce adoption in developing countries: a model and instrument', *Information & Management,* vol. 42, no. 6, pp. 877-899.

Montealegre, R. 1998, 'Waves of change in adopting the Internet: Lessons from four Latin American countries', *Information Technology and People,* vol. 11, no. 3, pp. 235-260.

Moodley, S. & Morris, M. 2004, 'Does e-commerce fulfill its promise for developing country (South African) garment export producers?' *Oxford Development Studies,* vol. 32, no. 2, pp. 155-178.

Morrison, A., Lynch, P. & Johns, N. 2004, 'International tourism networks', *International Journal of Contemporary Hospitality Management,* vol. 16, no. 3, pp. 197-202.

Morrison, A. J. & King, B. E. M. 2003, 'Small tourism businesses and e-commerce: Victorian tourism online Tourism and hospitality research', *Tourism and Hospitality Research,* vol. 4, no. 2, pp. 104-116.

Moyi, E. D. 2003, 'Networks, information and small enterprises: New technologies and the ambiguity of empowerment', *Information Technology for Development,* vol. 10, no. 4, pp. 221-232.

Mujahid, Y. H. 2002, 'Digital opportunity initiative for Pakistan', *Electronic Journal of Information Systems in Developing Countries,* vol. 8, no. 6, pp. 1-14.

Mukti, N. A. 2000, 'Barriers to Putting Businesses on the Internet in Malaysia', *Electronic Journal of Information Systems in Developing Countries,* vol. 2, no. 6, pp. 1-6.

Murelli, E. & Okot-Uma, R. W. O. 2002, *Breaking the Digital Divide : Implications for Developing Countries*, Commonwealth Secretariat ; SFI Publishing, [London].

Murphy, J. & Tan, I. 2003, 'Journey to nowhere? E-mail customer service by travel agents in Singapore', *Tourism Management,* vol. 24, no. 5, p. 543–550.

Myers, M. 1997, 'Qualitative Research in Information Systems', *MIS Quarterly,* vol. 21, no. 2, pp. 241-242.

Myers, M. & Avison, D. E. 2002, 'An introduction to qualitative research in information systems', in M. D. Myers & D. E. Avison, (eds.), *Qualitative research in information systems: a reader*, Sage Publications, pp. 3-12.

Namasivayam, K., Enz, C. A. & Siguaw, J. A. 2000, 'How wired are we? Selection and use of new technology in U.S. hotels', *The Cornell Hotel and Restaurant Administration Quarterly,* vol. 41, no. 6, pp. 40-48.

Nazmi, N. 2001, 'Failed reforms and economic collapse in Ecuador', *The Quarterly Review of Economics and Finance,* vol. 41, no. 5, pp. 727-735.

Neuman, W. L. 1997, *Social research methods : qualitative and quantitative approaches,* 3rd edn, Allyn and Bacon, Boston.

O'Connor, H. & Madge, C. 2003, '"Focus groups in cyberspace": using the Internet for qualitative research', *Qualitative Market Research: An International Journal,* vol. 6, no. 2, pp. 133-143.

O'Brien, J. A. 1999, *Management Information Systems: Managing Information Technology in the Internetworked Enterprise*, Irwin/ McGraw-Hill, USA.

O'Connor, P. & Frew, A. J. A. J. 2004, 'An evaluation methodology for hotel electronic channels of distribution', *International Journal of Hospitality Management,* vol. 23, no. 2, pp. 179-199.

OECD 2002, *Measuring the Information Economy 2002*, Organisation for Economic Co-operation and Development (OECD), Paris.

O'Leary, Z. 2004, *The essential guide to doing research*, Sage, London.

oneworld.net 2003, *Building digital opportunities: ICT case studies synthesis report*, Available: [www.oneworld.net] (May 1, 2004).

Oosthuizen, M. J. H. 2002, 'Action research', in K. Williamson, (ed.) *Research Methods For Students, Academics and Professionals*, Centre for Information Studies, Charles Sturt University, Wagga Wagga, NSW, pp. 159-175.

Orlikowski, W. J. & Baroudi, J. J. 1991, 'Studying Information Technology in Organizations: Research Approaches and Assumptions', *Information Systems Research,* vol. 2, no. 1, pp. 1-28.

Osterwalder, A., Rossi, M. & Dong, M. 2002, *The Business Model Handbook for Developing Countries*, Economics Working Paper Archive at WUSTL.

Oyelaran-Oyeyinka, B. & Lal, K. 2006, 'Learning new technologies by small and medium enterprises in developing countries', *Technovation,* vol. 26, no. 2, pp. 220-231.

Palmer, A. & McCole, P. 2000, 'The role of electronic commerce in creating virtual tourism destination marketing organisations', *International Journal of Contemporary Hospitality Management,* vol. 12, no. 3, pp. 198-204.

Palmer, J. J. 2000, 'Internet access in Bahrain: business patterns and problems', *Technovation,* vol. 20, no. 8, pp. 451-458.

Paraskevas, A. & Buhalis, D. 2002, 'Hosted Application Provision for Small and Medium Sized Tourism Enterprises: Are We Ready For This?' in W. K, F. A & H. M, (eds.), *Information Communication Technologies in Tourism*, Springer, Innsbruck, Austria.

Patel, N. V. 2003, 'E-commerce technology', in L. Harris, P. J. Jackson & P. M. Eckersley, (eds.), *E-business fundamentals*, Routledge, New York, pp. 43-63.

Payne, J. E. 2002, *E-Commerce Readiness for SMEs in Developing Countries: A Guide for Development Professionals*, Academy for Educational Development/LearnLink.

Peil, M. 1983, 'Situational Variables', in M. Bulmer & D. P. Warwick, (eds.), *Social research in developing countries : surveys and censuses in the Third World*, UCL Press, London, pp. 71-88.

Peng, Y.-C., Trappey, C. V. & Liu, N.-Y. 2005, 'Internet and e-commerce adoption by the Taiwan semiconductor industry', *Industrial Management & Data Systems,* vol. 105, no. 4, pp. 476-490.

Perren, L. & Ram, M. 2001, 'Case-study Method in Small Business and Entrepreneurial Research: Mapping Boundaries and Perspectives', *International Small Business Journal,* vol. 22, no. 1, pp. 83-101.

Phillips, M. 1998, *Successful E-Commerce: 10 Case Studies to Show Small Business How to Profit from Online Commerce*, Bookman, Melbourne, Australia.

Poon, A. 1993, *Tourism, Technology and Competitive Strategies*, CAB International, Wallingford.

Poon, S. 2000, 'Small business and Internet commerce: What are the lessons learned?' in F. Sudweeks & C. T.Romm, (eds.), *Doing business on the Internet: Opportunities and pitfalls*, pp. 113-135.

Poon, S. & Huang, X. C. 2004, 'E-commerce and SMEs: a reflection and the way ahead', in N. A. Y. Al-Qirim, (ed.) *Electronic commerce in Small to Medium-Sized Enterprises: Frameworks, Issues and Implications*, Idea Group, Hershley, PA, USA, pp. 17-30.

Poon, S. & Swatman, P. M. C. 1999, 'An exploratory study of small business Internet commerce issues', *Information & Management,* vol. 35, no. 1, pp. 9-18.

Pradhan, J. 2002, 'Information Technology in Nepal: What Role for the Government?' *Electronic Journal of Information Systems in Developing Countries,* vol. 8, no. 3, pp. 1-11.

Purcell, F., Toland, J. & Huff, S. L. 2004, 'The potential of e-commerce for remotely located SMEs: Case studies from Samoa', in N. A. Y. Al-Qirim, (ed.) *Electronic commerce in Small to Medium-Sized Enterprises: Frameworks, Issues and Implications*, Idea Group, Hershley, PA, USA, pp. 86-105.

Quan, J., Hu, Q. & Wang, X. 2005, 'IT is not for everyone in China', *Communications of the ACM,* vol. 49, no. 44, pp. 69-72.

Raisinghani, M., Vinaja, R. & Aladwani, A. M. 2002, 'E-commerce adoption in developing countries', *Eighth Americas Conference on Information Systems*, pp. 715-720.

Ramasamy, B., Chakrabarty, A. & Cheah, M. 2004, 'Malaysia's leap into the future: an evaluation of the multimedia super corridor', *Technovation,* vol. 24, no. 11, pp. 871-883.

Ranganathan, C. & Kannabiran, G. 2004, 'Effective management of information systems function: an exploratory study of Indian organizations', *International Journal of Information Management,* vol. 24, no. 3, pp. 247-266.

Rao, S. S., Metts, G. & Monge, C. A. M. 2003, 'Electronic commerce development in small and medium sized enterprises: A stage model and its implications', *Business Process Management Journal,* vol. 9, no. 1, pp. 11-32.

Rathore, A. S. & Alhabshi, S. M. 2005, 'A Case of Urban Cyber Cafés in Malaysia', *IFIP WG9.4 Newsletter,* vol. 15, no. 5.

Ratnathicam, I. 2002, 'Malaysia Country Profile', in G. S. Kirkman, P. K. Cornelius, J. D. Sachs & K. Schwab, (eds.), *The Global Information Technology Report 2001-2002 Readiness for the Networked World*, Oxford, New York, pp. 242-243.

Raventos, P. 2006, 'The internet strategy of the Costa Rican Tourism Board', *Journal of Business Research Strategic management in Latin America,* vol. 59, no. 3, pp. 375-386.

Richards, L. 2005, *Handling qualitative data : a practical guide*, Sage, London.

Rizk, N. 2006, 'Venturing the unexplored : e-readiness assessment of small and medium enterprises in Egypt', in S. Kamel, (ed.) *Electronic business in developing countries : opportunities and challenges*, Idea Group Publishing, Hershey, PA, USA, pp. 246-264.

Roe, K. 2006, 'The digital divide in the twenty-first century: An introduction', *Poetics: The digital divide in the twenty-first century,* vol. 34, no. 4-5, pp. 219-220.

Rogers, E. M. 1983, *Diffusion of innovations,* 3rd edn, Free Press ; Collier Macmillan, New York, London.

Rogers, E. M. 1995, *Diffusion of innovations,* 4th edn, Free Press, New York.

Romero, S. 2000, 'How a byte of knowledge can be dangerous, too', *New York Times. New York Times J1 - New York Times,* vol. 149, no. 51367, p. 4. Retrieved: 2000/04/23/, from Article database.

Sachs, J. D. & McArthur, J. W. 2005, *The Millennium Project: a plan for meeting the Millennium Development Goals*, The UN Millennium Project, New York.

Sadowski, B. M., Maitland, C. & van Dongen, J. 2002, 'Strategic use of the Internet by small- and medium-sized companies: an exploratory study', *Information Economics and Policy,* vol. 14, no. 1, pp. 75-93.

Sadowsky, G. 1993, 'Network Connectivity for Developing Countries', *Communications of the ACM,* vol. 36, no. 8, pp. 42-47.

Salman, A. 2004, 'Elusive challenges of e-change management in developing countries', *Business Process Management Journal,* vol. 10, no. 2, pp. 140-157.

Salvador, T., Sherry, J. W. & Urrutia, A. E. 2005, 'Less Cyber, More Caf˜ e: Enhancing Existing Small Businesses Across the Digital Divide With ICTs', *Information Technology for Development,,* vol. 11, no. 1, pp. 77-95.

Samitas, A. G. & Kenourgios, D. F. 2005, 'Entrepreneurship, small and medium size business markets and European economic integration', *Journal of Policy Modeling,* vol. 27, pp. 363-374.

Santarelli, E. & D'Altri, S. 2003, 'The Diffusion of E-commerce among SMEs: theoretical Implications and Empirical Evidence', *Small Business Economics,* vol. 21, pp. 273-283.

Sarrocco, C. 2002, 'Improving IP connectivity in the least developed countries: breaking the vicious circle', *Info - The journal of policy, regulation and strategy for telecommunications,* vol. 4, no. 3, pp. 14-28.

Schofield, J. W. 2002, 'Increasing the Generalizability of Qualitative Research', in M. B. Miles & A. M. Huberman, (eds.), *The qualitative researcher's companion*, Sage Publications, Thousand Oaks ; London, pp. 171-203.

Scott, M. 1986, 'The Dangers of assuming Homogeneity in Small Firms', in P. Rosa, (ed.) *The Role and Contribution of Small Business Research : Proceedings of the 9th National Small Firms Policy and Research Conference 1986*, Gower Publishing Group, Hamshire, England, pp. 79-90.

Scupola, A. 2003, 'The adoption of Internet commerce by SMEs in the south of Italy: an environmental, technological and organizational perspective', *Journal of Global Information Management,* vol. 6, no. 1, pp. 51-71.

Scupola, A. & Kubon, E. 2005, 'Adoption of e-commerce in small and medium size enterprises in Denmark', in M. G. Hunter, S. Burgess & A. Wenn, (eds.), *Small business and information technology - research techniques and international case studies*, Heidelberg Press, Heidelberg, Victoria Australia, pp. 127-140.

Sellitto, C., Burgess, S. & Davidson, A. P. 2005, 'Website Implementation Practices of Australian Small to Medium Tourism Enterprises', in *Institute for Small Business & Entrepreneurship 28th National Conference*, Blackpool, UK.

Seyal, A. H., Rahim, M. M. & Rahman, M. N. A. 2000, 'An empirical investigation of use of information technology among small and medium business organizations: A Bruneian scenario', *Electronic Journal of Information Systems in Developing Countries,* vol. 2, no. 7, pp. 1-17.

Sharma, S. K. & Gupta, J. N. D. 2003, 'Adverse effects of e-commerce', in S. Lubbe & M. V. Heerden, (eds.), *The economic and social impacts of e-commerce*, Idea Group Pub, Hershey, PA, pp. 33-49.

Shaw, E. 1999, 'A guide to the qualitative research process: evidence from a small firm study', *Qualitative Market Research: An International Journal,* vol. 2, no. 2, pp. 59-70.

Sheldon, J. P. 1997, *Tourism Information Technology*, CAB International, New York.

Sheridan, T. B. 1975, 'Technology for group dialogue and social change', in H. A. Linstone & M. Turoff, (eds.), *The Delphi Method techniques and Applications*, Addison-Wesley Pub Co., Reading, Masachusetts, pp. 535-549.

Simon, F. L. 1995, 'Tourism development in transition economies : The Cuba case', *The Columbia Journal of World Business,* vol. 30, no. 1, pp. 26-40.

Singh, A. D. 2000, *Electronic Commerce: Some implications for firms and workers in developing countries*, International Labor Organization www.ilo.org/inst, Geneva.

SMIDEC 2001, *E-Commerce Grant for SMIs.*, Available: [http://www.smidec.gov.my/] (February 18, 2006).

SMIDEC 2006, Available: [http://www.smidec.gov.my/detailpage.jsp?section=defsme&level=1] (February 10, 2006).

Somekh, B. 2006, *Action research : a methodology for change and development*, Open University Press, Maidenhead, England ; New York.

Tabor, S. W. 2005, 'Small business challenge: discovering the strategic value of IT', in M. G. Hunter, S. Burgess & A. Wenn, (eds.), *Small business and information technology - research techniques and international case studies*, Heidelberg Press, Heidelberg, Victoria Australia, pp. 15-25.

Talamanca, C. F., Furlani, A. & Alves, A. 2006, *ICT cluster priority assessment. ICT and SMEs: a strategy framework for the development of the Latin American and Caribbean Region*, Multilateral Investment Fund, Inter-American Development Bank, Italian Trust Fund for MIF Project Preparation.

Tanburn, J. & Singh, A. D. 2001, *Innovation and Sustainability in Business Support Services (FIT) - ICTs and Enterprises in Developing Countries: Hype or Opportunity?*, International Labour Office, Geneva.

Tarafdar, M. & Vaidya, S. D. 2004, 'Adoption of electronic commerce by organizations in India: Strategic and environmental imperatives', *Electronic Journal of Information Systems in Developing Countries,* vol. 17, no. 2, pp. 1-25.

Tatnall, A. & Burgess, S. 2003, 'Using Actor Network Theory to Identify Factors Affecting the Adoption of E-commerce in SMEs', in M. Singh & D. Waddel, (eds.), *E-business innovation and change management*, Idea Group Publishing, Hershey, Pa., pp. 152-169.

Tetelman, M. 2003, 'Foundations of Electronic Commerce for Development', in *A Sourcebook on Access and Applications: Models of Use & Case Studies:*, Academy for Educational Development, Washington, DC.

The Financial Express 2000, *CorDECT's pilot WLL project could transform telecom in rural India*, Available: [http://www.tenet.res.in/Press/20001.html] (September 3, 2004).

Thomas, R. 2000, 'Small firms in the tourism industry: some conceptual issues', *International Journal of Tourism Research,* vol. 2, no. Sept/Oct, pp. 345-353.

Tiessen, J. H., Wright, R. W. & Turner, I. 2001, 'A model of e-commerce use by internationalizing SMEs', *Journal of International Management,* vol. 7, no. 3, pp. 211-233.

Tigre, P. B. & O'Connor, D. 2002, *Policies and Institutions for E-Commerce Readiness: What Can Developing Countries Learn from OECD Experience?*, OECD Development Center.

Tornatzky, L. G. & Fleischer, M. 1990, *The processes of technological innovation*, Lexington Books, Lexington, Mass.

Tsai, H.-T., Huang, L. & Lin, C.-G. 2004, 'Emerging e-commerce development model for Taiwanese travel agencies', *Tourism Management,* vol. 26, no. 2005, pp. 787-796.

Tschang, T., Chuladul, M. & Le, T. T. 2002, 'Scaling-up information services for development: a framework of increasing returns for telecentres', *Journal of International Development,* vol. 14, pp. 129-141.

Tse, A. C.-B. 2003, 'Disintermediation of travel agents in the hotel industry', *International Journal of Hospitality Management,* vol. 22, no. 4, pp. 453-460.

Tully, J. & Riekstins, A. 1999, 'License-free Wireless Internet Access Technologies', *Computer Networks,* vol. 31, no. 21, pp. 2205-2213.

Turner, S. 2003, *Indonesia's Small Entrepreneurs : Trading on the Margins*, Routledge, London ; New York.

UNCTAD 2001a, *E-finance and small and medium-sized enterprises (SMEs) in developing and transition economies*, UNCTAD, Geneva.

UNCTAD 2001b, 'Report of the Expert Meeting on Improving the Competitiveness of SMEs in Developing Countries: The Role of Finance, Including e-Finance to Enhance Enterprise Development', in *Improving Competitiveness of SMEs in Developing Countries: Role of Finance Including EFinance to Enhance Enterprise Development*, Geneva.

UNCTAD 2003, 'E-commerce and development report 2003', in *United Nations Conference on Trade and Development*, United Nations Publication, New York and Geneva.

UNCTAD 2004, *Use of the Internet for efficient international trade: guide for SME managers*, United Nations Publication, New York and Geneva.

United Nations. 2005, *UN Millennium Development Goals*, Available: [http://www.un.org/millenniumgoals/#] (October 5, 2006).

van Dijk, J. A. G. M. 2006, 'Digital divide research, achievements and shortcomings', *Poetics. The digital divide in the twenty-first century,* vol. 34, no. 4-5, pp. 221-235.

Vatanasakdakul, S., Tibben, W. & Cooper, J. 2004, 'What prevent B2B eCommerce adoption in developing countries?: a socio-cultural perspective', in *17th Bled eCommerce Conference eGlobal*, Bled, Slovenia.

Vich-i-Martorell, G. A. n. 2003, 'The internet and tourism principals in the Balearic Islands', *Tourism & Hospitality Research,* vol. 5, no. 1, pp. 26-44.

Vinaja, R. 2003, 'The Economic and Social Impact of Electronic Commerce in Developing Countries', in S. Lubbe & M. V. Heerden, (eds.), *The economic and social impacts of e-commerce*, Idea Group Pub, Hershey, PA, pp. 22-32.

Walczuch, R., Van Braven, G. & Lundgren, H. 2000, 'Internet adoption barriers for small firms in The Netherlands', *European Management Journal,* vol. 18, no. 5, pp. 561-572.

Walsham, G. 1993, *Interpreting information systems in organizations*, Wiley, Chichester, West Sussex, England ; New York.

Wan, C.-S. 2002, 'The web sites of international tourist hotels and tour wholesalers in Taiwan', *Tourism Management,* vol. 23, no. 2, pp. 155-160.

Whyte, A. 1999, 'Understanding the Role of Community Telecentres in Development - A Proposed Approach to Evaluation', in R. Gomez & P. Hunt, (eds.), *Telecentre Evaluation*, International Development Research Centre (IDRC), pp. 271-312.

Wicklein, R. C. 1998, 'Designing for appropriate technology in developing countries', *Technology in Society,* vol. 20, no. 3, pp. 371-375.

Williamson, K. 2002a, 'The Delphi method', in K. Williamson, (ed.) *Research Methods For Students, Academics and Professionals*, Centre for Information Studies, Charles Sturt University, Wagga Wagga, NSW, pp. 209-220.

Williamson, K. 2002b, 'Research Techniques: Focus Groups', in K. Williamson, (ed.) *Research Methods For Students, Academics and Professionals*, Centre for Information Studies, Charles Sturt University, Wagga Wagga, NSW, pp. 25-48.

Williamson, K. 2002c, 'Research Techniques: Questionnaires and interviews', in K. Williamson, (ed.) *Research Methods For Students, Academics and Professionals*, vol. 235-249, Centre for Information Studies, Charles Sturt University, Wagga Wagga, NSW.

Williamson, K. & Bow, A. 2002, 'Analysis of quantitative and qualitative data', in K. Williamson, (ed.) *Research Methods For Students, Academics and Professionals*, Centre for Information Studies, Charles Sturt University, Wagga Wagga, NSW, pp. 225-250.

Williamson, K., Burstein, F. & McKemmish, S. 2002, 'The two major traditions of research', in K. Williamson, (ed.) *Research Methods For Students, Academics and Professionals*, Centre for Information Studies, Charles Sturt University, Wagga Wagga, NSW, pp. 25-48.

Wood, C. M. 2004, 'Marketing and e-commerce as tools of development in the Asia-Pacific region: a dual path', *International Marketing Review,* vol. 21, no. 3, pp. 301-320.

World Bank. 2000, 'News about World Bank Group Small and Medium Enterprise Initiatives', In *SME FACTS.*, vol. 1, World Bank Group SME Department.

World Bank. 2006, *World Development Indicators*, Available: [http://www.worldbank.org/] (May 12, 2007).

World Bank. n.d, *ICT at a glance*, Available: [http://www.worldbank.org/] (August 2, 2006).

Wresch, W. 2003, 'Initial e-commerce efforts in nine least developed countries: a review of national infrastructure business approaches and product selection', *Journal of Global Information Management,* vol. 11, no. 2, pp. 667-78.

WTO 2001, *E-business for tourism: practical guidelines for tourism destinations and businesses*, World Tourism Organization, Madrid.

WTO 2002a, 'Asia-Pacific conference on information technology in tourism', in *Information Technology in Tourism: The Asia-Pacific Perspective*, World Tourism Organisation, Kunming, Yunnan Province.

WTO 2002b, *Tourism and Poverty Alleviation*, World Tourism Organisation, Madrid.

WTO 2006a, *World Tourism Organisation Facts and Figures*, Available: [www.world-tourism.org/facts/menu.html] (June 12, 2007).

WTO 2006b, *World Tourism Organisation Worlds Top Tourism Destinations (absolute numbers)*, Available: [www.world-tourism.org/facts/menu.html] (June 18, 2006).

Wuelker, G. 1983, 'Questionnaires in Asia', in M. Bulmer & D. P. Warwick, (eds.), *Social research in developing countries : surveys and censuses in the Third World*, UCL Press, London, pp. 161-166.

Wunder, S. 2000, 'Ecotourism and economic incentives -- an empirical approach', *Ecological Economics,* vol. 32, no. 3, pp. 465-479.

www.answers.com 2007, *List of countries by English-speaking population*, Available: [http://www.answers.com/topic/list-of-countries-by-english-speaking-population] (February 4, 2007).

www.ecuadorexplorer.com 2006, Available: [www.ecuadorexplorer.com] (April 8, 2006).

www.internetpolicy.net 2005, *E-readiness Guides*, Available: [www.internetpolicy.net/readiness] (November 2, 2005).

www.tourism.gov.my 2006, *Tourism Malaysia*, Available: [www.tourism.gov.my] (August 12, 2006).

www.turismo.gov.ec 2007, *Ministrerio de Turismo* (June 8, 2007).

www.worldatlas.com 2007, Available: [http://graphicmaps.com/clipart.htm] (February 2, 2007).

Xu, S., Zhu, K. & Kraemer, K. L. 2002, 'A cross-country study of electronic business adoption using the technology-organization-environment framework', in *ICIS Conference*, Centre for Research on Information Technology and Organizations University of California, Barcelona, Spain.

Yin, R. K. 1994, *Case study research: design and methods,* 2nd edn, Sage, Thousand Oaks, CA.

Zeitlyn, D. & Barone, F. 2004, 'Small ads as first steps to Internet business: a preliminary survey of Cameroon's commercial Internet usage', *First Monday,* vol. 9, no. 9.

Zhou, Z. 2004, *E-commerce & information technology in hospitality & tourism*, Thomson/Delmar Learning, Clifton Park, NY.

Appendix A: Related publications & projects

This section contains a list of publications resulting from this thesis and from associated work. It also includes a list of projects that the author has been involved with during the course of this study.

Publications resulting from this research

Karanasios, S. & Burgess, S. 2006, 'Tourism and Internet adoption : a developing world perspective', *Journal of International Tourism Research* (forthcoming)

Karanasios, S 'Ecuador, tourism and the digital divide' *Journal of Business Systems Governance and Ethics. Special Issue on ICTs and developing countries*, vol 2, no.2 (forthcoming)

Karanasios, S. & Burgess, S. 2006, 'Exploring the Internet use of small tourism enterprises: evidence from a developing country', *Electronic Journal of Information Systems in Developing Countries,* vol. 27, no. 3, pp. 1-21.

Karanasios, S. Burgess, S. & McGrath, M. 2006, 'A research note on the use of the Internet by small tourism enterprises in East Malaysia', in *7th IBIMA Conference Internet & Information Systems in the Digital Age*, ed. K. S. Soliman, Brescia, Italy, pp. 76-82.

Karanasios, S. & Burgess, S. 2005, 'Small business e-commerce in developing countries: a planning and implementation framework', in *Proceedings of The Fourth International Conference on Information Technology in Asia*, eds. N. Kulathuramaiyer, A. W.Yeo, W. Y. Chai & T. C. Eng, Universiti Malaysia Sarawak, Kuching, Malaysia, pp. 16-22.

Karanasios, S. 2005, 'An e-commerce planning & implementation framework for small tourism enterprises in developing countries (Doctoral Consortium)', in *Proceedings of Qualitative Research and IT: Challenges for Qualitative Research*, Griffith University, Brisbane, Australia

Karanasios, S. & Burgess, S. 2005, 'An E-readiness model for small tourism businesses in developing countries', in *The 6th International We-B Conference 2005*, eds. C. Sellitto & A. Wenn, Victoria University, Melbourne, Australia, pp. 197-205.

Karanasios, S. & Burgess, S. 2005, 'E-readiness in developing countries: A conceptual e-readiness framework for small tourism enterprises', in *5th IBIMA International Conference on Internet & Information Technology in Modern Organizations*, ed. K. S. Soliman, IBIMA, Cairo, Egypt, pp. 765-771.

Karanasios, S. & Burgess, S. 2005, 'A model for small tourism business Internet use in developing countries', in *Proceedings of Tourism Enterprise Strategies: Thriving—and Surviving—in an Online Era (TES 2005)*, Victoria University, Melbourne, Australia, pp. 77-91.

Other publications resulting from associated work

United Nations. 2006 (workgroup publication), *Proceedings of the 44th Graduate Study Programme (GSP) The United Nations: A Time for Renewal*, United Nations Office at Geneva, Geneva.

Karanasios, S., Sellitto, C., Burgess, S., Johanson, G., Schauder, D. & Denison, T. 2006, 'The role of the Internet in building capacity: small businesses and community based organisations', in *The 7th International We-B Conference 2006*, eds. C. Sellitto & A. Wenn, Victoria University, Melbourne, Australia, Melbourne, Australia, pp. 15-30.

Burgess, S., Johanson, G., Schauder, D., Karanasios, S., Stillman, L. & Sellitto, C. 2006, 'Building capacity in small businesses for the use of the Internet: A study of 'outer' suburbs in Australia', in *SME Entrepreneurship Global Conference 2006*, Selangor, Malaysia

Burgess, S., Karanasios, S. & Sandy, G. 2003, 'A Web Site Decision Chart: Practice vs Theory', in *ICWI 2003*, pp. 1139-1143.

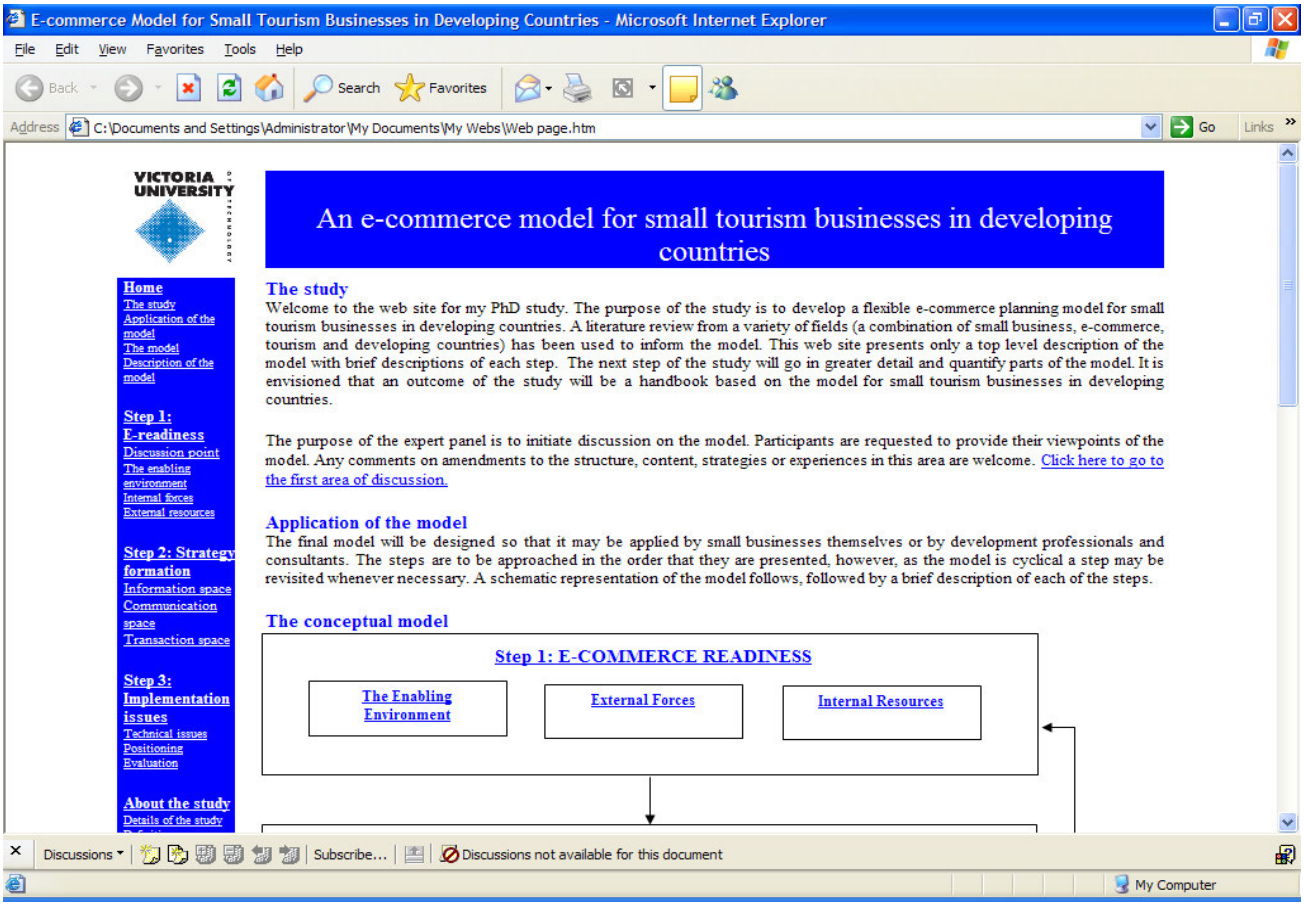
Related projects and programs

- **RMIT University - Business Information Technology 2007:** Evaluating the Impact of Information and Communications Technology on the Livelihood of Rural Communities. With: Assoc Prof Mohini Singh, Dr Alemayehu Molla
- **United Nations 2006:** Graduate Study Programme at the Palais Des Nations Geneva 3-23 July 2006
- **Monash University - Centre for Community Networking Research 2005-2006**: Small business and community based organisation in outer-urban Victoria. With: Prof Don Schauder, Assoc Prof Greame Johanson, Dr Stephen Bugress, Dr Carmine Sellitto, Dr Larry Stillman
- **Victoria University - E-commerce Research Unit 2004-2005:** E-commerce in tourism: use of websites by small regional and urban enterprises, Cooperatice Research Centre for Sustainable Tourism (CRCST). With: Dr Stephen Bugress, Dr Carmine Sellitto, Dr Andrew Davidson

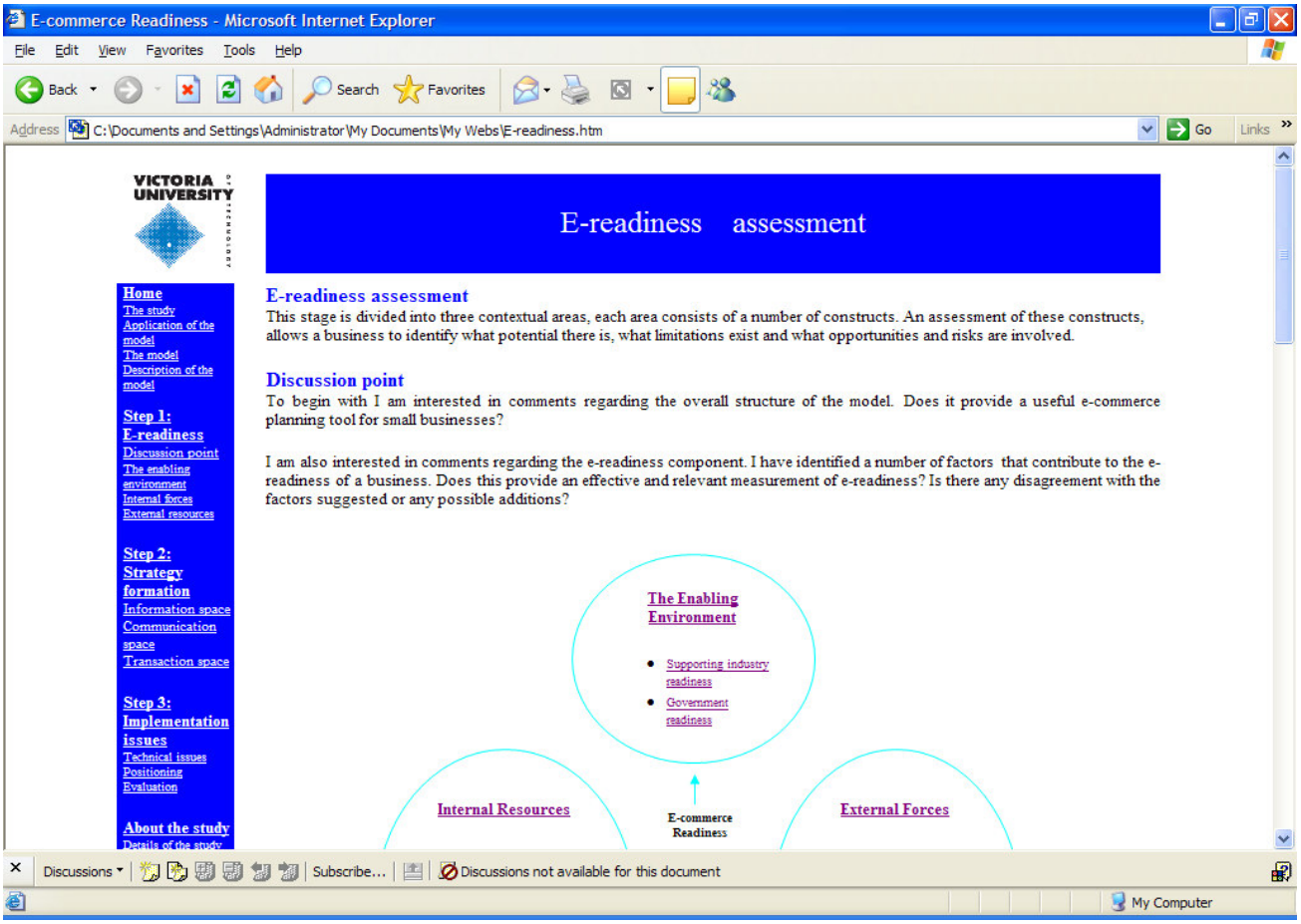
Appendix B: Phase One expert panel website

This section contains a copy of the website that was presented to the experts in Phase One of this thesis. The website was used to present the initial framework to the experts and a ListServ was used as a vehicle for the discussion. The website was updated with changes that reflected the comments put forth by experts during the course of expert panel.

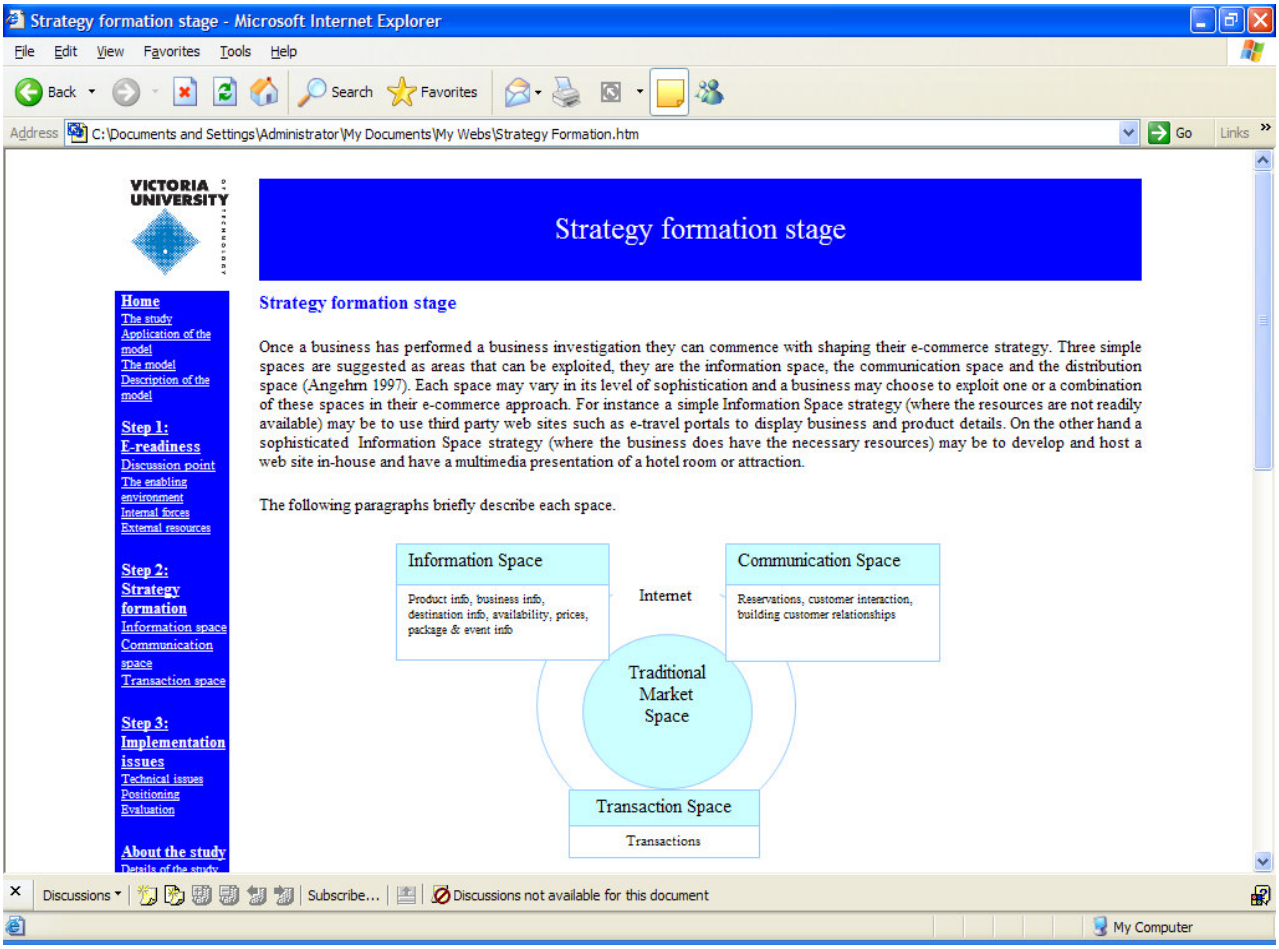
The home page



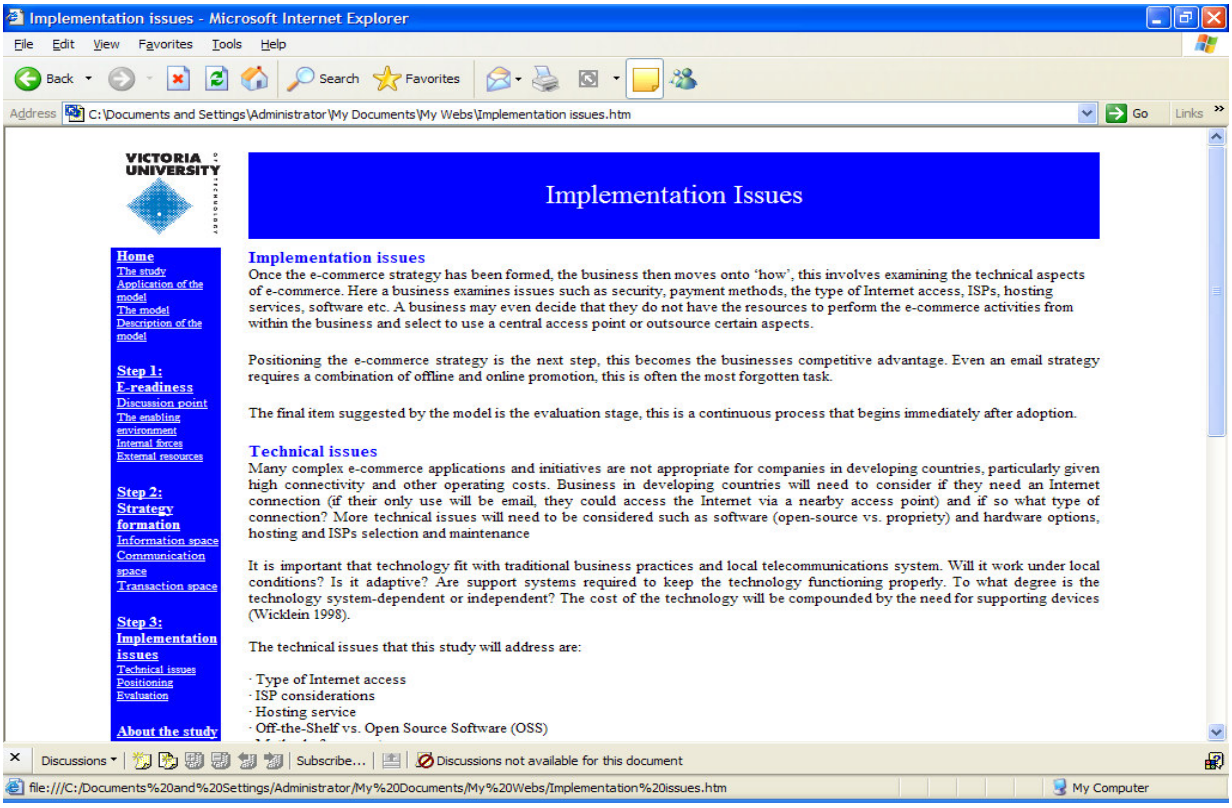
E-readiness discussion page



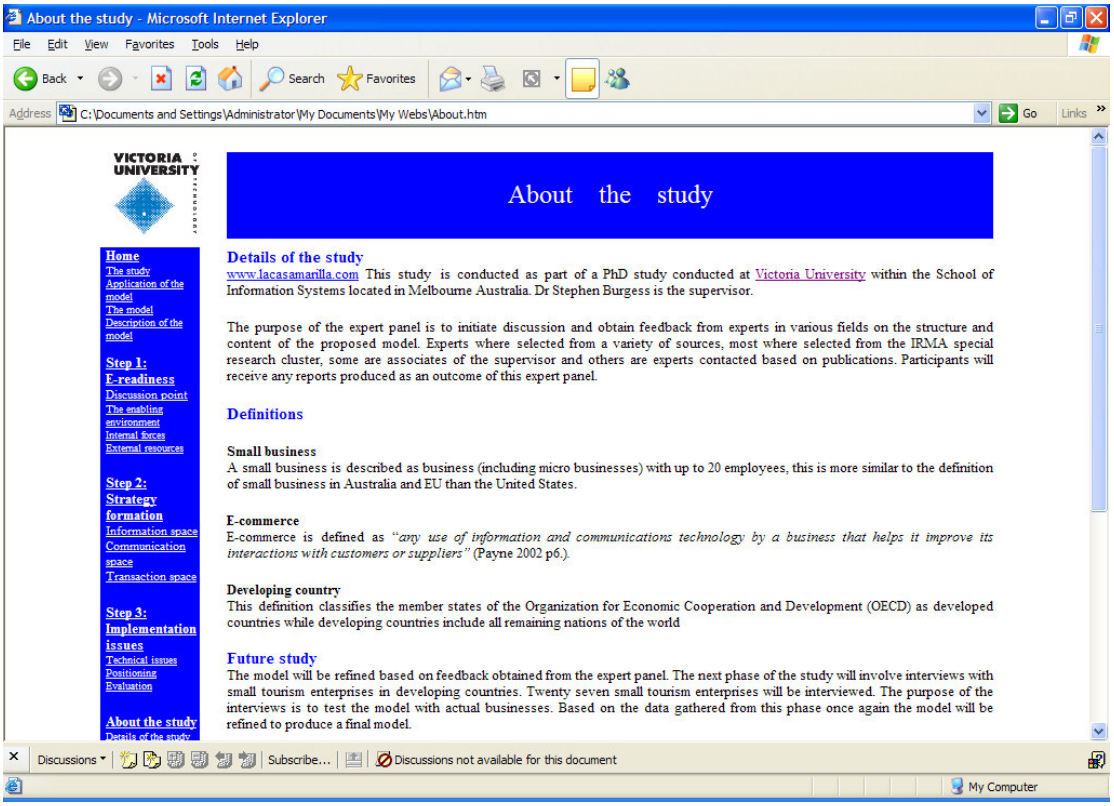
Strategy/ICDT discussion page



Implementation Issues discussion page



About the study page



Appendix C: Phase Two interview schedule

This section contains a copy of the interview schedule that was used to guide the discussion with small tourism enterprises in Phase Two of the study. The reader is reminded that a semi-structured interview approach was employed.

Part A: Introduction

1. Discuss study background
2. Discuss basic business background (should be able to gain an understanding of the business through its web presence and e-mail correspondence)
    a. How many employees do you have?
    b. What type of tourism products/services do you offer?
    c. How many years have you been in operation?
    d. What is your target market?
        i. Can you provide a breakdown of the target market?
3. How long have you been using a computer?
4. How long have you been using the Internet?
5. From where do you access the Internet (internal, Internet café etc)?
6. What type of Internet connection do you have?
7. How much do you pay for your Internet connection?
8. What were the main obstacles to adopting the Internet?
    a. Discuss how obstacles were overcome
9. Who is responsible for developing your Internet strategy?

PART B: E-readiness

1. The Macro Environment

    a. Government forces
        i. Discuss government initiatives and e-commerce business environment
        i. Does your government (state or local) provide support and initiatives to help you to adopt the Internet/further your use of the Internet? This may be in the form of free government portal listing (www.tourism.gov.my), training and advice, or tax incentives for purchasing equipment. If so how does this help you?

        ii. On the other hand, does government place barriers to you adopting the Internet? i.e. lack of policies, censorship, tight state controls over telecommunications, unstable political environment etc. What is the impact of this on your business and in particular its influence on your ability to adopt the Internet?

    b. The external enabling environment
        i. Discuss the ICT environment
        ii. Discuss Internet connection if not already discussed.
        iii. Do you have access to support services, such as web designers, consultants, ISP etc? What is the impact of this – especially if you need these support services?
        iv. Do you offer online payments, or use the Internet for e-banking? (If they are up to this phase). Are banks able to process credit card or other types of online transactions? If not, what is the impact of this? – Do you use overseas banks or third party services such as portal booking engines?
        v. Where do you go if there is a fault i.e. with pc/connection?

2. Organisational Readiness

    a. Management characteristics
        i. Are you interested and supportive of the use of Internet?
        ii. What are some of the perceived/or actual benefits
        iii. What do you see as the main barriers to adopting the Internet and furthering the use of the Internet?

    b. Capital
        i. Was the cost of adopting the Internet into your business an issue? Was gaining access to the necessary financial resources a problem?
        ii. Is the ongoing Internet cost an issue?
        iii. Discuss further the financial aspect of Internet adoption

    c. Employees
        i. Before adopting the Internet did you consider if your employees had the skills to maintain/develop/contribute to the Internet activities?
        ii. Did this impact your decision to adopt the Internet? Or to advance your use of the Internet?
        iii. Discuss employee skills and gaining access to skilled employees etc.

    d. Internal ICT infrastructure
        i. Is there a reliable power source within the business (if not already discussed)?
        ii. What type of ICTs were you using within the business prior to adopting the Internet? Was incorporating the Internet into the existing infrastructure a problem?

    e. Socio-cultural factors
        i. Does the Internet fit well with your business beliefs and practices?
        ii. Has it affected or caused any issues in the way in which you do business. i.e. some businesses in developing countries prefer to do business face-to-face. Issues in communicating with customers in a foreign language?
        iii. Do/did you think that doing business over the Internet will impact on your business culture?
        iv. Discuss other socio-cultural issues if possible, access to information, technophobia, impact of tourism etc

3. Market Readiness

    a. Customers
        i. Do your customers expect some type of online presence? (Relate back to the target market).
        ii. What type of presence do they expect? - Did this influence your decision to adopt the Internet?
        iii. What proportion of bookings/customers is online?

    b. Competitors
        i. Are you aware of what your competitors are doing online?
        ii. How did this influence your decision to adopt the Internet, or how you use the Internet?
        Discuss the competitive environment

    c. Supplier/trading partners
        i. There has been a large change in the way that tourism intermediaries do business, did this influence your decision to adopt the Internet?
        ii. Did other suppliers or partners influence your decision?

Discuss interaction with these entities

d. Collaborations
    i. Did you consider the potential to join with other businesses to develop your Internet presence, by this I mean did you perhaps decide to share resources (costs, IT infrastructure etc) or decide to launch a website together?
    ii. Would you consider collaborating with other businesses to develop your Internet presence?

e. Online tourism enablers
    i. Did you consider the availability of online tourism portals – how did this influence your decision to adopt the Internet?
    ii. Do you use these services?

4. Other (if not already covered)
    a. Do you have a strategic plan in regards to the Internet?
    b. What is the biggest constraint in achieving your desired Internet objectives?
    c. Do you promote your online presence through traditional means? i.e. guidebooks, pamphlets etc

PART C: Information, Communication and Transaction Spaces (these questions may have been answered by this point).

1. Communication space
    a. How do you use the Internet for communication
        i. For communicating with customers
        ii. For communicating with suppliers
        iii. Other entities, government etc

2. Information space
    a. How do you use the Internet to display information about yourself:
    b. Do you know how many other (third party) websites your business is listed on?
        i. How do you maintain the information on these sites?
        ii. Do you pay for these listings? How much?

3. Transaction space
    a. Do you use the Internet for offering online payments? (If not already asked)
        i. If so, is this through a third party? .i.e. portal, do you use a local or overseas bank.
    b. Do you foresee your business offering this feature in the near future?

    Discuss online payments

Appendix D: Example of content analysis

This Appendix contains a part copy of one of the interviews that was conducted. It is included to demonstrate how the content analysis took place. Applying content analysis invlovled assigning codes derived from the existing framework as follows:

EE: Enabling environment

GR: Government readiness

CR: Customers

CO: Competitors

TE: Tourism entities

IF: Internal infrastructure

MC: Manager characteristics

CL: Collaborations

SP: Suppliers and partners

SC: Socio cultural factors

n: notes

Along with a code a description of what was particular about the item was included. These were then placed into a spreadsheet to allow for an overview of the data analysis. In addition to the codes derived from the framework new emergent themes were given the code of *n* (indicating note). Again new themes were also given a description and placed into the spreadsheet to allow for a synopsis of themes. An example of the content analysis is provided here. Note: a significant portion of the transcript has been omitted so that the subject may not be identified.

Background

The lodge is located in a small village sitting at 3200m altitude, located 4-5 hours bus ride on dirt road from Latangaga (located 2 hours from Quito, population 53,441)[EE]. The population of the village is largely indigenous and its economy is centred on agriculture and more recently tourism.

The interview took place inside the premises of the lodge on the 16th and 17th of May 2005. The first part of the interview took place with Owner 1 and focused on the operation of the lodge and ICT adoption and use. The second part of the lodge took part with Owner 2 outside where the satellite-dish was set up and focused on how it was introduced into the business and its impact.

[EE] The village is remote and it is not possible to gain access to the supporting services such as technical support, professional web design and so forth that one would find in a more densely populated area.

The lodge is an eco-lodge and is quite well known for its environmental and community development approach[n]. The lodge's main service is obviously accommodation and dining. However, they do offer activities and trips in the surrounding area. Part of the popularity of the lodge is due to its environmental approach. All food is organic, all power is renewable, no materials are thrown out and even the toilets are environmentally friendly.

Owner 1 is 38, and owner 2 is 40. They first arrived in the village when they were 26 and 28.

The business has been operating since 1995.

Discussion

Owner 1 told the story of how she and Owner 2 first visited the village in 1993 as backpackers. They fell in love with the area and stayed with a family because there was no accommodation at all in the village. After staying with a family for a few weeks someone suggested to them that if they enjoyed the area so much they should buy some land. They took up this advice and decided to build a lodge. When building the lodge the locals thought they were crazy because there was no tourism in the area at all at that time – even Ecuadorians rarely visited to the village[MC].

The owners began by building a small lodge that could fit 20 or so people and slowly they began to receive visitors. This is partly because they promoted heavily to the US market (using word of mouth)[n] and because of the surrounding wonders of Languna Quilotoa (a volcanic lake) Rio Toachi Canyon (a large canyon), cloud forests and picturesque location[n],[CO].

In 1995 when the two owners commenced the business there was no telephone access at all in the village. Owner 1 told me of how when they first began operating they used to drive to Latanganga (the nearest large town) and would drive past the local telephone company in town to stop and ask for a telephone line to be

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[n] This lodge embedded community development and environmental sustainability/responsibility into part of its business strategy

[MC] Demonstrates the entrepreneurial nature of the owners.

[n] This illustrates the importance of traditional advertising techniques.

[n] The lodge relied heavily on word of mouth to build its market – this was successful because the service they provide is excellent –proven by the numerous travel awards.

[CO] There were no competitors in the area. This made it easier for the business to establish itself. At the same time, the lodge owners suggested to others in the area to build lodges to deal with the influx of tourists. This competition however has not impacted on the lodge or negatively on the village.

put into the village[MC]. A first line was put in place a few years later (one phone for all the village) and then later more lines were added in 1999[EE]. The owners are both heavily involved in the community, Owner 1 works in the school and Owner 2 was asked to be the head of the village water committee[n]. Prior to setting up the lodge neither of the owners had any experience in tourism, except for travelling.

When the lodge first opened its doors and became popular the owners found that they could not cope with the demand, and in fact there were occasions were there was people sleeping on the floor of the lodge and were the owners had to knock back customers. Owner 1 even begged other people in the village to develop new lodges to cope with the demand and subsequently allow for greater economic benefits. Shortly after two other lodges opened. There are now three lodges in village.

On the wall inside of the lodge there are dozens of articles and awards from eco and travel magazines from around the world, which highlight the success of the lodge[n].

The business only has local suppliers. They do not engage with travel agents. Supplies such as accommodation stuffs are purchased from with the village commune or from Latangaga. There is no online purchasing, nor is the business likely to be considering the poor logistical infrastructure[EE]. Almost all foodstuffs are grown by the lodge or purchased within the village. As an example of the impact of tourism on the village, everyday the lodge purchases something like 30 organic eggs from a local lady that has a small chicken farm[n]. There is no collaboration concerning tourism with any other tourism operators. This is because the owners believe it takes time and would not work given the close proximity of the other two lodges. Outside of the village Owner 1 suggested there is no need to collaborate[CL].

There are nine local employees that perform a mixture of maintenance, cooking, cleaning and maintaining the small farm and grounds.

[MC] Indicates that manager readiness is important in overcoming certain obstacles

[EE] This shows that the infrastructure is so poor that only one telephone line for the entire village was possible. Also only through lobbying was the village able to achieve this. Mobile network coverage was not possible at the time of the study.

[n] This demonstrates the community and environmental development philosophy of the owners.

[n] This supports the popularity of the lodge.

[EE] The poor infrastructure is a barrier to e-commerce.

[n] If one multiplies this to include bread, legumes, beans etc, there is a large economic benefit of tourism in the village. As the village is so secluded much of the benefits remain in the village.

[CL] Although there is little use of ICTs to collaborate there is some inter-village collaboration whereby the owners of this lodge insisted that others building lodges. There is also little opportunity to be gained by collaborating. This lodge appears to be peaking. Therefore any joint effort is likely to benefit another entity more than this lodge.

The owners also employ two people that manage the lodge, usually foreigners, from the USA or Europe. At the time I was there a couple from the USA were managing the lodge. Owner 1 explained that sometimes they take on a volunteer, who is provided free lodging and food in exchange for work. In addition to this Owner 1 and Owner 2 are heavily involved in the management of the lodge. They also take care of most of the online tasks such as replying to emails and web development. One of the owners explained that he developed the website himself. He said he had no prior IT education or experience in it "*but managed to figure out how to do it"*[CC].

Initially the lodge was promoted through word-of-mouth. Owner 1 pointed out that she has never paid a travel agent for promotion. Also she said that they prefer not to receive big groups from travel agents because they are quite difficult to manage. Along these lines, there was no pressure from any entity to adopt ICTs or email; this was solely the choice of the business. However, there has been some increase in interaction from tourism suppliers via email since.[SP] In other words, suppliers and intermediary readiness was not a major factor for this lodge. The major adoption factors appear to be customer readiness and overcoming communication problems.

Owner 1 explained that during the low season the lodge receives an average of 5 guests per night and during the high season up to 26 per night.

Once the Internet was introduced things evolved rapidly. Now the Internet constitutes about 70% of the business[n],[CR]. This refers to email bookings. The remainder are from walk-ins, which may or may not have been related to customers visiting the business's online presence. Owner 1 described the Internet as *'the backbone of biz [business] for [us]'*.

Introducing technology into the business was difficult, but this did not seem to bother either of the owners. The owners seemed rather entrepreneurial and managed to take everything in their stride[MC].

A first telephone line was installed in 1999 largely due to their lobbying and that is when they first stated using the Internet on a dial-up connection. Owner 1 lamented that the dial up connection was terrible, often

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[CC] This is another example of the readiness of management to undertake change.

[SP] No pressure to adopt. Like some other tour operators there has been increased interaction from tourism entities such as intermediaries. Given the popularity of the lodge many tourism intermediaries would want to develop a relationship with this lodge because of the potential to illicit booking fees.

[n] High than the average amongst the Ecuadorian and Malaysian tourism operators

[CR] This demonstrates that customers are ready. In fact, they rarely use the telephone (this is no surprise given that the quality of the connection has deteriorated over the years).

[MC] This was because the owners say the rapid growth of the Internet in tourism and understood that given their location the Internet presented the best means of reaching markets and interacting with customers.

she would connect and then it would disconnect, and they found that they would end up paying over a hundred dollars for their dial up connection and subsequent phone calls required to make a connection[EE].

Then Owner 1 told the story of a man and his family driving through South America in a van that visited the lodge with a satellite in his van that he could use to connect to the Internet and make phone calls from his van. This then gave the owners the idea of purchasing a satellite. In the long run this would be cheaper because they would not need to make dial up connections. Owner 1 said that also the quality and reliability of the telephone deteriorated rapidly over the last few years. There has been no maintenance on the telecommunication infrastructure in the village when the phone line was installed *"it was old technology and now it is ancient"*[EE]. They can only connect with a phone call about 60% of the time and even then the line is really crackly and it is difficult to hold a conversation[n].

The owners then purchased a second hand satellite-dish from the USA and had it shipped over to Latanganga (the nearest village). They then set it up. Owner 2 had no expertise in this area but managed to figure it out using trial and era. Interestingly when I asked about other innovations at the lodge (like composting toilet, and other environmental innovations) he said that they learn from trial and error. Every now and then someone with expertise comes to their lodge and they exchange ideas. Owner 2 set up the satellite-dish on a table (he showed me the satellite set up) it is connected to the electricity supply. He said that it shouldn't be set up on a table because the table can move (when people sit on it). Owner 2 said that it took him a while to pick up a signal. He said that the satellite points at another satellite-dish that is in space the size of a fridge. He is reluctant to move the satellite-dish from the table to a stand that he built because he said that it might be difficult to pick up the signal. For this reason he is willing to leave it on the table[MC].

The lodge still suffers from telecommunication troubles as indicated in this email from Owner 1

'we are back from our vacation, which was great. Unfortunately our telephone lines have been down for over a week, but we still have the Internet because we had installed a satellite connection about 2 months ago. Let us know how you want to proceed... it is unclear as to when the phone company will be able to fix the village phone system.'[EE,MC]

[EE] The telecommunications infrastructure is extremely poor. This however was overcome through manager readiness. That is they were instrumental in facilitating improving the situation.

[EE] Illustrates the inadequate and unreliable infrastructure in the country

[n] This may help to explain why email is the predominant form of communication

[MC] This is another example of the entrepreneurial nature of the owners. Even with no prior experience they executed an idea successfully.

[EE] Another example of the poor infrastructure, a large number of tourism operators have indicated that telephone communication may not be possible.

[MC] This also indicates that management are aware of the problem and have taken steps to inform customers (or people visiting the lodge) of the problem.

The customer base of the lodge is wide. Customers from the USA are the largest market. Owner 1 reported that probably 40% are North American. There are also visitors from Europe, Australia and Japan. I observed that the demographic range of customers range from back-packers to eco-tourists, to a group of 40-year-old ladies from the USA.

When the Internet was introduced, neither of the owners had any real Internet skills. Owner 2 taught himself how and learnt how to use a web site using FrontPage. He purchased a computer at a cheap price in Latanganga and learn how to use it. Incorporating the computer into the business was not a problem at all[IF]. Owner 1 admitted that the web site is not great but it has been successful. The web site is provided in six languages, English, Spanish, French, German, Dutch and Portuguese. I did not ask where the expertise came from for the translation of the web site into so many languages. Most other STEs only provide English/Spanish options. The web site is fairly basic and only consists of a small number of pages. However, the owners did not want to produce a sophisticated website and simply wanted to provide information to customers.

The owners promote heavily on line using a mixture of tourism and eco sites. She said that she pays for promotion on www.EcuadorExplorer.com and that that had been using this protal since they became online[TE]. She said that it is run and owned by an American married to a local woman. She said there is heaps more intermediary/portal web sites and that through some of these they receive bookings but they need to pay a fee per booking[TE]. Owner 1 gave me the names of some people that I should have a chat to and are involved heavily in Eco-tourism.

Owner one articulated that one of the largest challenges they face is finding locals who can take care of the Internet side of things, she said that she has four reliable young girls (teenage) that can cook and look after the rooms. However, she said I have "*four reliable young teenage girls that can cook and look after the rooms*', however, *'if I train them up on the Internet side of things there is no point because as soon as they*

[IF] It seems like it is just a matter of obtaining a computer and connecting it to the Internet. Given the other technological innovations (solar power etc) incorporating a computer would be relatively straight foward.

[TE] These online entities are important to the business. They have increased the number of online bookings and importantly given the business greater presence. The business is in the fortunate position that allows reap the benefits of other form of online promotion that takes place without its actual involvement.

[TE] This indicates that these online entities can provide some benefit for small tourism businesses. They also boost the readiness of a business because the portals can reach new audiences through their greater resources.

hit 19-20 they get married and have children"[EM, SC]. That is why they hire internationals to take care of that side of things[EM]. She said that they only take on couples because she knows that it can get very lonely up there. They latest couple they had however broke up while working at the remote lodge.

There is no assistance from the government in and shape or form. Owner 1 said that even though they received an eco-tourism operator certificate that this has had no result[GR]. They are listed on a government web site that is never updated and she said that no one looks at it. She lamented that there is no official e-tourism presence. She continued to say for them it is not such a problem but for other small tour operators it would a huge benefit to be promoted through an effective government initiative. She also lamented that given the political and economic chaos in recent years it is unlikely that there would be any changes and any support forthcoming to small businesses[GR]. Owner 1 and 2 do not actually pay much attention to government support to small tourism operators and ICTs because they acknowledge that there would be little forthcoming. However, they are involved heavily with local governance.

Neither of the owners could recall the amount they pay for the Internet. However, they both claimed that it was cheaper than having a dial-up connection. Guests may also use the Internet at the charge of 6 USD per hour. I am unsure of the reason for the high-price, most Internet cafés in Ecuador charge up to 2USD per hour[CP, MC].

Significantly, the lodge was able to reduce telecommunications costs from using the Internet. More importantly they believe that the Internet in particular email and the web site have significantly lead to an increase in business.

[EM] It is difficult to locate local skilled human capital. In this case the owners are not even willing to undertake any form of training or up-skilling because of the likelihood that the employees will leave after reaching a certain age. This is a social-cultural issue. It is also a reflection of life in a rural remote community where there is a limited base of employees.

[SC] This is also a social and cultural factor and one that not well explored and is potentially a large obstacle to ICT adoption in rural and remote locations.

[EM] This is an interesting technique used to overcome a lack of local capacity. This is something that is not well documented in the literature. A benefit of tourism is that it is relatively easy to attract foreign workers, mainly because they enter tourism for lifestyle reasons.

[GR] Here the owner is referring to a government tourism website that does not actually promote tourism, rather it is the website of the tourism department. In any event I could not locate the eco-tourism award.

[GR] Even though there is no government support, this owner did not seem phased by it at all, whereas other owners seemed frustrated by the lack of support.

[CP] Capital does not appear to be an issue in this case. In fact, using ICTs even in a rare case of purchasing and importing a satellite-dish has resulted in an overall reduction in communication costs.

[MC] This shows once more the readiness of the manager to take steps to remedy the situation.

Owner one explained that one other lodge in the area has an Internet – this is a dial up connection – but she is unsure of how they use it.

The website is not measured in terms of hits or anything like that. This is because they are satisfied with the benefits to date. The lodge experiences near full capacity most of the time and have been extending the lodge ever since they first opened.

The lodge does not offer online payments and is not willing to take this on. There is simply not the need, people rarely make a booking and not turn up. Owner 1 indicated that they prefer not to deal with the bureaucracy of Ecuadorian banks especially given their isolation.