

The strategic business value of internet usage in Small to Medium-sized Enterprises

Japhet E. Lawrence, PhD¹

Abstract

In an increasingly global world, both information and information technology are of great significance to organization of all sizes. Businesses both large and small need information to succeed in today's rapidly changing environment, they need to be able to process data and use information effectively when conducting their day-to-day operations. The choice of SMEs as the main context of this paper is not arbitrary. It is chosen because of SMEs make significant contribution to most economies of the World. SMEs are extremely important to many countries. In some countries this group of organisations provide the foundation for the entire economy; their contribution to the economy cannot be over emphasised. Given the strategic importance of the SME sector to growth and job creation and the large base of Internet users, the success of SMEs gaining business leverage from the Internet is critical to the future of global economies. It is argued that SMEs stand to benefit significantly from the opportunities that Internet can offer to businesses. Therefore, the use of the Internet is widely seen as critical for the competitiveness of SMEs in the emerging global market.

Keywords

Internet; electronic commerce; World Wide Web; Information Communication Telecommunication; Information Technology; electronic data interchange; Small to Medium-sized Enterprises

Introduction

The paper examines the potential opportunities and benefits that Internet usage can offer to SMEs. Since the commercialisation of the Internet, Internet commerce has evolved as a key development, which promises to change the future of the global economy (Poon and Swatman, 1998). There has been a concomitant upsurge of research studies into different aspects of Internet commerce (Quelch and Klein, 1996). There have been many studies and reports published in the last few years on the Internet usage in business in general. The literature shows that few of these studies focus on the usage of Internet in large organisations. Studies (MacGregor et al, 1998; Auger and Gallagher, 1997; Reynolds et al. 1994; Cragg and King 1993)

¹ Department of Applied Computing & Information Technology, University of Kurdistan-Hawler, Erbil, Kurdistan Region of Iraq. Email: lawrenceje@yahoo.com or j.lawrence@ukh.ac

have shown that SMEs characteristics are different from larger organizations. The unsuitability of applying large organisation concepts to SMEs presents the question of how does SME differ from their larger counterparts. Research has shown (DeLone, 1988) that small businesses tend to be more risky than their larger organisation. Most SMEs lack technical expertise (Cragg and King, 1993; Reynolds et al, 1994; Bili and Raymond 1993), most lack adequate capital to undertake technical improvements (Wymer and Regan, 2005; Auger and Gallagher, 1997) and most SMEs suffer from inadequate organizational planning (Reynolds et al, 1994) while DeLone (1988) found small businesses were subject to higher failure rates.

Many studies (MacGregor et al, 1998; Cragg and King 1993; DeLone, 1988) have examined the differences in management style between large businesses and SMEs. These studies have shown that among other characteristics, SMEs tend to have a small management team (often one or two individuals), they are strongly influenced by the owner and the owner's personal habits, they have little control over their environment (this is supported by the studies of Reynolds et al, 1994; Poon et al. 1996 and Barnes et al, 2008) and they have a strong desire to remain independent.

In an increasingly global world, both information and information technology are of great significance to organization of all sizes. Businesses both large and small need information to succeed in today's rapid changing environment, they need to be able to process data and use information effectively when conducting their day-to-day operations. Fundamental changes are taking place in economies throughout the world that distinctly favours the SMEs. The downsizing and out-sourcing activity of many large companies as they pursue restructuring and return to a core business and the emergence of a competitive global economy has created and continues to create many opportunities for SMEs.

The role of information technology has been seen as increasingly important amongst companies as a mechanism to increase productivity, reduce costs and facilitate flexibility. As Kalakota and Whinston (1997) suggest, the role of SMEs is a key factor in the growth of economies in general and the emerging electronic marketplace in particular. The growth of the Internet has opened up a vast arena, providing more opportunities for businesses, particularly small to medium-sized enterprises to sell their products and services to a global audience than they would have been able to afford to reach using the traditional methods. Literature (Curries 1998) suggests that Internet offers a new paradigm for business. It is suggested that the Internet allows global trading and there are, potentially, few limits to growth (Levy and Powell 1999).

The establishment of an environment in which SMEs are able to grow and prosper in the emerging global business is considered critical to the development and expansion of businesses in the economy. The identification and encouragement of new business opportunities for SMEs, based on information technologies has been the priority of most governments. Information and communication technologies (ICTs) are seen as playing an increasingly important role in the growth performance of SMEs and these are taking on new significance in most countries of the world (OECD, 2000). The advent of Internet-based electronic commerce allows smaller firms to expand their customer base, enter new product markets and rationalize their businesses (Lawrence, 2009). The majority of SMEs perceive the appropriate use of the Internet and its technology as important factors to facilitate business growth and contribute to productivity and efficiency (Behrendorff and Goldsworthy, 1996).

Businesses are looking to new technologies to meet their unique business requirements and position themselves to take advantage of global changes in business activities. A search of literature reveals that many changes in organization today have been technology-driven. Clarke (1996) notes that information technology (IT) is really changing the whole nature of business

transaction between consumers and suppliers of goods and services. Pigneur (1996) points out that companies especially SMEs are confronted with a number of changes that require innovative answers. These challenges include the emergence of a competitive global economy; the trend towards an information based economy, and the shift from mass production to a customer-driven economy. He adds that to compete in today's global information-based and customer-driven economy, SMEs must be efficient, innovative and competitive - able to respond just in time, focus on quality, and implement mass-customisation. He suggests that in order to do this today, SMEs must be able to leverage the new information and communication technologies to fit better in their environment, establish more co-operative inter-organisational relationships and compete on the international markets (Pigneur, 1996).

Small to Medium-Sized Enterprises

The choice of SMEs as the main context of this paper is not arbitrary. It is chosen because SMEs make significant contribution to most economies of the World. SMEs are extremely important to many countries, in some countries these group of organisations provide the foundation for the entire economy (Mason, 1997), their contribution to the economy cannot be over emphasised. They are socially and economically important, since they represent 99% of all enterprises in the EU and provide around 65 million jobs and contribute to entrepreneurship and innovation (Observatory of European SMEs, 2007). SMEs have been shown to contribute significantly to country and regional economic growth, increased employment levels and locally relevant product and service. They are also the source of future growth and innovation. Barnes et al (2008) argue that the advent of the digital economy has made the adoption and use of Internet a significant issue for most SMEs.

Yet, many SMEs find themselves in a difficult situation. Research shows (Barnes et al., 2008; Turban et al, 2008; OECD, 2001) that SMEs may be too small to be able to employ a dedicated IT expert and lack the resources to buy consultancy advice. They often have limited experience in selecting, implementing and evaluating suggested IT solutions. Barnes et al (2008) note that SMEs find themselves caught in a trap, lack of resources means that while there may be an aggregate demand for IT service and advice, individually, the varying nature of that demand makes it uneconomical for other firms to provide a service meeting that demand.

Businesses in this sector include those which are flexible to new working patterns and who are innovators in the adoption of new business practice. Although the definition of what constitutes small and medium enterprises varies from country-to-country, the benefits of growth in the SME sector are significant. There is no clear understanding of what SME is. The term Small to Medium-sized Enterprises (SMEs) incorporates two primary classifications i.e. small business and medium business. The Department of Trade and Industry in the UK (DTI, 2007) defined SMEs as a company employing between 1-249 employees. The current study based on DTI SME defines small business thus: as being independently owned and managed; being closely controlled by owners/managers who also contribute most, if not all, of the operating capital, having the principal decision making functions resting with the owner/manager; with total number of employees less than 50; while Medium-sized enterprise is defined as business that is larger than small business and smaller than large business with total employees greater 50 and less than 250.

SMEs are important to many countries and their contribution to economy cannot be over emphasized. SME comprises firms that make up the significant proportion of UK industry (99.8%), and are therefore very important to the UK economy. They account for more than 59% of private sector employment in the UK and currently are contributing most of the private sector employment growth (BERR, 2008). According to the Observatory of European SMEs (2007),

the average SME across all European enterprises employ 6.8 people. At both the European Union (EU) and national level, SMEs lie at the heart of policy making with the emphasis on encouraging enterprise and promoting business growth. SMEs are an important link to boosting the levels of innovation in the national economy and fostering greater competition both domestically and increasingly, internationally.

Griffith (1993) points out that in Hong Kong, nearly 90% of companies are 'small', 88% of all companies employ fewer than 10 people and account for over 80% of Hong Kong's international trade. In US, he says SMEs are also an important part of the economy with some 3,800,000 businesses having between 5 to 99 employees (Griffith, 1993 cited in Behrendorff and Goldsworthy, 1996). Similar findings exist for Canada where SMEs account for 45% of GDP, much of the economy's growth, 60% of all jobs in the economy, and 75% of net employment growth. SMEs are an integral part of the country's economic fabric and are important to the economy. "The success of SMEs affects the well-being of the Canadian society as engines of job creation, economic growth and innovation" (CFIB, 2000). Another similar survey covering the United States, Japan, and Western Europe (IDC, 2009) revealed that SMEs make up nearly 86% of all business establishments.

However SMEs face several major challenges in their effort to maintain important position in the global marketplace and meet the world-wide competition. In addition, SMEs, particularly small business suffers from additional problem of limited resources such as financial, technological and human (Lawrence, 2008, 2002; Wymer and Regan, 2005). For this group of organisations, information technology and the direct use of information itself can be of crucial use, provided that they can be made use of readily, cheaply and without recourse to expensive expert assistance (Poon and Swatman, 1995). Surveys that have been conducted by the European Commission clearly demonstrate that the use of electronic commerce provides SMEs with substantial benefits in several areas crucial for their business success. Behrendorff and Goldsworthy (1996) indicate that SMEs perceive the appropriate use of the Internet as an important factor to facilitate business growth and contribute to productivity and efficiency, and it enables access to global markets by eliminating the constraints previously imposed by geographic boundaries. Lymer et al (1997) point out that the use of Internet is becoming increasingly important as a mechanism to increase productivity, reduce costs and facilitates flexibility in SMEs business.

Given the strategic importance of the SME sector to growth and job creation and the large base of current Internet users as well as potential users, the success of SMEs gaining business leverage from the Internet is critical to the future of global economies. Lawrence (2002) argues that SMEs stand to benefit significantly from the opportunities that Internet can offer to businesses. Therefore, the use of the Internet is widely seen as critical for the competitiveness of SMEs in the emerging global market. The question that arises is how can SMEs benefit from the use of the Internet in their business? Before this question can be answered, a discussion of distinctive characteristics of SMEs that make them different from larger organizations, their IT and Internet usage will be provided.

Characteristics of Small to Medium-Sized Enterprises

SMEs possess specific attributes (Auger and Gallagher, 1997) that distinguish them from the large organisations most often studied in regards to information systems usage (Cragg and King 1993). It is argued that SMEs differ from large companies in the way they develop their corporate strategies and their technology policies (Lawrence, 2008; MacGregor et al, 1998). Large companies typically have well-defined processes for developing and implementing strategies

through a corporate planning process (Pool et al., 2006). While SMEs often use less structured approaches, strategies and policies that may not be formulated but may "emerge" from a set of actions and experiments (Mason, 1997).

Research shows that SMEs have fewer resources and expertise in terms of management of new technologies (Barnes et al, 2008; Lawrence, 2008, 2002; Wymer and Regan, 2005; MacGregor et al, 1998; Igbaria, Zinatelli, Cragg, and Cavaye, 1997; Cameron and Clarke, 1996; Blili and Raymond, 1993; Raymond et al, 1989; DeLone, 1988). These authors agree that SMEs are more vulnerable because of their lack of financial and human resources (Wymer and Regan, 2005; Auger and Gallagher, 1997) as well as information resources that are needed to sufficiently understand and master the organisation and its environment. Many SMEs do not possess the technological background, which would enable them to use and evaluate IT, or lack the time to explore it (Barnes et al, 2008). It is often the skill and enthusiasm of the owner-manager that typically drives the business forward and shapes the character of investment decisions (Barnes et al, 2008; Dixon et al, 2002). Yet the need to remain flexible and innovative is the criteria for survival and success for SMEs.

On the other hand, SMEs have their own particular advantages of being more flexible and adaptable to changes more readily than larger enterprises (Blili and Raymond, 1993). They are often innovative in new and different ways, for example in their approach to management and marketing, rapid implementation and execution of decisions, market proximity and their capacity for adaptation and short-term orientation (Poon and Swatman, 1995). They are less likely to suffer 'lock-in' with respect to existing plants, technologies or organisational structure.

The problems encountered by smaller firms are different from those encountered by large firms, and require different managerial approaches (Blili and Raymond, 1993). From a strategic and administrative point of view, SMEs are mainly 'organic' in nature and can be seen as an extension of the entrepreneur's own personality (MacGregor et al, 1998). Structurally, they are typically informal with minimal differentiation among units. They are often weak in terms of financing, planning, and control, training and information systems, due to a chronic lack of resources (Dixon et al, 2002; MacGregor et al, 1998; DeLone, 1988). Others may not perceive the ways in which the use of IT could enable them to operate their businesses more efficiently or cost-effectively.

However, this does not necessarily mean that IT is the exclusive property of big business. It would be wrong to think that SMEs are not concerned by it, just as it would be wrong to think that they have nothing to gain from it. In fact, while some of these firms are destined to be the first victims of this new competitive tool (Mason, 1997), others by being more innovative are able to profit from the many advantages offered by technological development. Availability of new ideas and the ability to seek opportunities are essential if small businesses are to remain flexible and innovative.

Raymond et al (1989) identify several distinctive characteristics of SMEs. They argue that such firms are characterised by low levels of organisational maturity so that planning and control processes are generally less formalised. Decision-making is often the sole responsibility of the owner/manager, who because of his or her involvement in the day-to-day mechanics of the firm has neither the time, resources nor the expertise needed to evolve an analytical approach (Pavic et al., 2007). Time and resources are the major constraint for most small business operators (Mason, 1997). Similarly, MacGregor et al (1998) suggest that some of the following characteristics make up the organisational environment in which most SMEs operate - small management team; centralised power and control; informal and inadequate planning and control systems; lack of

control over the business environment; lack of resources (limited ability to obtain finance); limited process and product technology; limited market share; heavy reliance on few customers and chaotic organisational structure. However, they added that SMEs have distinctive advantage of being responsive, flexible, flat structured, organic and simple.

Cameron and Clarke (1996) further suggest that some of the features of SMEs' made information technology use ideal for their businesses. These include flexibility and their ability to change and adapt quickly to innovations compared to large organisations, which are very slow to respond to change. They are generally less formal in their organisational and managerial practices; they have less sophisticated IT capabilities and expertise than larger organisations. They tend to exhibit more informal communication and a less bureaucratic mode of operation and less rigid functional divisions. They tend to have a shorter focus on medium-term survival rather than on long-term profit, which is prevalent in large organisations. SMEs commonly have fewer resources available (MacGregor et al, 1998), both financial and intellectual (and especially managerial, Caldeira and Ward, 2002), to invest in major initiatives, and are dubious about the benefits of committing those resources to the painstaking planning, data gathering, reporting and analysis that larger organisations would consider essential to such undertakings. Blili and Raymond (1993) identify other characteristics which are specific to SMEs as - environmental specificity, organisational specificity, decisional specificity, psycho-sociological and information systems specificity. Some aspects of this specificity may have a particular effect on the development, introduction and use of strategic information systems.

Information Technology and internet usage in SMEs

Research shows (Lawrence, 2008; Cragg and King, 1993; DeLone, 1988) that large number of SMEs and very small companies use computer primarily to perform tasks such as designing spreadsheet and word-processing; these have traditionally been the extent of the usage of IT by SMEs. The use of IT to reduce costs is something that more SMEs are embracing to improve communication and increase overall productivity (Lawrence, 2002). Levy and Powell, (1998) concur that IT is used in SMEs to reduce costs and administrative activities. They argue that the emphasis on cost reduction suggests a limited perspective in SMEs on using ICTs to improve growth and competitiveness.

The literature suggests (Lymer et al, 1997) that many SMEs have been unable to trade on a global basis due the high costs associated with the Value-Added-Networks (VANs). The resulting high costs and the necessary lead times frequently create barriers to investment and widespread use of electronic commerce applications, and this inhibits the expansion of electronic commerce beyond large companies and their major trading partners (Neches et al, 1994).

SMEs have traditionally implemented and used information technologies in their business as a reactive measure in response to request by larger organisations that are customers and therefore provide the business imperative for them to become IT-compatible (Iacovou et al, 1995; Behredorff and Goldworthy, 1996; Tuunainen and Saarinen, 1997; Levy and Powell, 1998; Poon and Swatman, 1998). These large companies have access to resources and investment capital, which are not generally available to SMEs. Iacovou et al (1995) examine the adoption of electronic data interchange (EDI) in small firms. Their findings indicate that outside pressure from trading partners to be the main reason small companies become active in EDI. Tuunainen and Saarinen (1997) show in their studies that usually small businesses have used EDI in a way that was originally established by their (large companies) customers and they have not used the technology because of the opportunities it offers them or as part of their business strategy.

A number of researchers have studied different aspects of small business and Internet usage both in the UK and overseas including Quelch and Klein (1996) which examine some of the wider effects of the Internet commercialization. They argue that the Internet reduced the competitive advantages of economies of scale in many industries making it easier for small companies to compete on a world wide basis. Global advertising costs, as a barrier to entry, is significantly reduced as the Internet makes it, possible to reach a global audience more cheaply. Small companies offering specialised niche products are able to find the critical mass of customers necessary to succeed through the world-wide reach of the Internet. The Internet's low cost communication permits firms with limited capital to become global marketers at an early stage in their development.

Despite variations in topic and approach, all of these authors have concluded that small businesses are increasingly using the Internet and that this will radically change the way some small businesses operate. However, according to Lawrence (2002), one of the barriers to the introduction and use of new technologies in SMEs include the difficulties in quantifying future benefits when assessing the business case for using these technologies. The uncertainty about technology and threat to render current technology (in which they have a substantial investment) obsolete and lack of knowledge and resources to implement technology.

The Potential opportunities available to SMEs

The Internet offers opportunities for SMEs to sell their products and service to a global audience than they would have been able to afford to reach using the traditional methods (Poon and Swatman, 1998). The nature of SME business and the versatility of the Internet make it an ideal platform for SMEs to participate and trade in the global marketplace.

Many reasons for using Internet for business have been suggested (Lawrence, 2002; Jeffrey and Roberts, 1997; Auffret and Matsuura, 1998). The Internet can be used in different ways, it can be used as a media to provide information; as a mechanism for communication; as a medium for information distribution and dissemination; as a medium for conducting transaction (e.g. purchasing products and services. Previous studies (Lawrence and Hughes, 2000; Lawrence, 2002) have shown that the major use of the Internet is in the area of information access and research, web browsing, customer support, communication (email and messaging), advertising and to gain competitive advantage.

DTI (1998) indicates that the implementation of ICTs in companies has resulted in improvements in efficiency and streamlined processes in most functional areas of business. The Internet is an unmatched marketing and sales communications channel, offering a range of information on products and services. The intriguing aspect of the Internet is that it can make a very large organisation look small and very small organisation look very large. Location is no longer a constraint in this environment and the market reach is endless.

Drucker (2002) points out that "there are very few innovations in human history encompass as many benefits as Internet does. The global nature of the technology, the opportunity to reach hundreds of millions of people, its interactive nature, the variety of possibilities for its use, and the resourcefulness and rapid growth of its supporting infrastructure, especially the web, result in many potential benefits to organization, both large and small, individual and society. The Internet revolution is as profound as the change that accompanied the industrial revolution".

One of the main benefits of using Internet is its ability to reach global audience. Internet can reach millions of people world-wide for a fraction of what it costs to do direct mail or run

advertisements in a magazines or newspapers. The benefits of Internet use includes improve communication, improve information accessibility, enhance distribution of information, and increase speed in getting tasks completed (Lawrence, 2002; Riemenschneider and Mckinny, 1999).

In their survey of Internet usage in UK SMEs, Lawrence and Hughes (2000) indicate that benefits that accrue from Internet use includes creation of new markets through the ability to easily and cheaply reach potential customers; easy entry into new market, especially geographically remote markets, as the playing field become more level between companies of different sizes; faster time to market as business processes are linked enabling virtual elimination of time delays between steps and the engineering of products.

The versatility or flexibility of Internet potentially provides a unique opportunity for SMEs, with an efficient way of exposing their companies, products and services to a wide range of global audience through the following capabilities of Internet use:

Global reach: The Internet has the ability to reach potential customers easily and cheaply, and eliminates delays between the different steps of business subprocess (IITA, 1994). It enables SMEs to 'reach' out in its presentation of their companies, products and service to a wide audience in a way that no other mechanism could allow at so little cost. It allows SMEs to implement effective globalisation strategies, which would otherwise be impossible due to the complexity of doing business in foreign countries.

Companies of all sizes can use Internet technology to 'create a presence' for themselves by using the world-wide-web to advertise their products or services. The web offers a dynamic environment, which supports the distribution of linked 'pages' that contain mixture of text, graphics and audio-visual content. This creates an ideal environment for presentation of advertising and marketing material (Lawrence, 2002). On the Internet, it does not matter where your company is located in the world, the information and distribution infrastructure is the same, regardless of location. This lack of geographic boundaries presents opportunities for new customers and revenue growth, as well as new opportunities for SMEs.

Global communication access: The potential of Internet and the web as universal infrastructure to facilitate global communication and transfer of data holds great promise for SMEs. Because Internet is based on non-proprietary technology, it provides SMEs with the ability to communicate electronically on a global basis with same ease that larger organisations communicate internally using their internal local area networks. It also enables on-line access by SMEs to information databases and for transacting business with both customers and suppliers without any geographic restriction.

Leveling the playing field: SMEs have just the same freedom as larger businesses, to pursue multiple strategies and experiments with new approaches on the Internet as big companies have. The Internet levels the playing field, enabling just about any company to become aggregator. All sites on the Internet are equal irrespective of company size. Big companies do not gain any edge from their presence on the Internet over their smaller counterpart. The Internet can be regarded as a great equalizer, where smaller company can operate on equal footing with a larger rival.

Low barriers to entry into new markets: The low barrier to entry into new markets presents opportunities for SMEs to enter into any type of businesses, such as retailing, and banking, where new entrants can set up shop for a fraction of the cost of a traditional brick-and-mortar

operation. While this creates opportunities for imaginative SMEs with new ideas, it means that the established leaders in almost every industry now have to think about where new competition might spring from.

The easy entry into new markets is a great opportunity to SMEs, especially geographically remote markets, as the playing fields become more level between companies of different sizes and locations. With the ability of Internet to perform electronic commerce anywhere at anytime, SMEs will be able to enter and participate at less cost and more efficiently in new markets, and large companies will be able to evaluate, select, and work with other companies more readily than is possible today.

Facilitation of existing activities: Internet offers opportunities for SMEs to add value to their businesses by improving the existing activities. It facilitates the current way of working by speeding up processes, reducing cost and reducing potential for errors or adding flexibility by allowing quick changes. It also allows for new products to be created or existing products to be customized in an innovative ways. A large source of business value that the Internet can provide comes from changing the products themselves, in addition to the way they are advertised, ordered or delivered. This is mainly due to the potential of collecting information, which will be used to customised products.

Product promotion: Internet provides product information to customers through on-line electronic brochures. This can be seen as an additional marketing channel for SMEs, allowing them to reach a maximum number of customers. The advantage of Internet, as a way to deliver product information, is its availability anytime and anywhere. It offers an opportunity for new promotions strategies, enhancing the branding of products

Customer service: The ability to provide on-line answers to commonly encountered problems, email interaction on a 24-hour basis, 365 days a year, builds customer confidence and retention. One appropriate use of the web is to support customers by providing 'help desk' type facilities on-line that can be available to customers as and when they need them. This use of the internet is particularly valuable where a company has technical information to distribute or information that needs frequent updating, the most up-to-date version can always be made available on-line.

New sale channel: SMEs may be able to create new sales channel through the use of the Internet. Products can be sold and delivered over the Internet such as computer software. An example is software.net, a company selling software packages, which can be delivered digitally and used, literally minutes after buying them. It also offers distribution and marketing channels for SMEs to market and sell goods to its customers. It potentially offers SMEs participation in a market in which distribution costs or cost-of-sale shrinks to zero especially those SMEs who are in the business of publishing, digital products (e.g. Software) or information services.

Access to valuable information: Internet offers the SMEs the opportunity to discover new markets and business possibilities. The Internet can be a useful tool to find out about the movement and trends in a business marketplace, the actions of business competitors and partners, resources of value to the efficient operations of data intensive tasks

Direct marketing: The internet technology is significantly different from other conventional print or TV/radio medium which is 'static' in that, once created, advertisements designed for these are difficult and costly to change in any way. While advertisement on the Internet does not suffer from this limitation as changes can be incorporated into the design much easier and

with immediate effect. A small company with a suitable product or service to sell can create as much of an impact in its own domain as a large business with a much larger budget if the technology is used appropriately. This improved reach can also be achieved for relatively little cost compared with other methods available to achieve similar results (Lawrence, 2008).

Internet provides perhaps the cheapest form of advertisement relative to the number of people that can be reached; SMEs would have the same potential to reach millions of people as the bigger companies. SMEs do not have the resources of the big companies to advertise their products in traditional way; however, with the use of the Internet, they can mount aggressive advertisement just as the big companies. It is about one-fourth less costly to perform direct marketing through the Internet than through conventional channels (Hoffman et al, 1995).

Internet offers the opportunity for SMEs to save on costs. By sharing digital infrastructure such as Internet compared to owning a physical one, marketing, distribution and customer service costs can be drastically reduced. The Internet provides access to web where SMEs can cost effectively market their goods and services and access information relevant to their business. It offers direct sales via an electronic catalogue or some other more innovative format. Customers can order goods fill out electronic form on-line. This type of approach represents direct marketing, which presents tremendous opportunities for SMEs to customise their products and services.

However, the main problems with this type of marketing on-line is it is "pale" in comparison with the real world experience of flipping through the glossy pages of hard copy catalogue or shopping in a real mall. Customers will continue to prefer the social and aesthetic delight of the "shopping experience". Security is another issue, which hampers the acceptance of this marketing approach by customers. Another obstacle is the speed of surfing the Internet, which can make on-line shopping frustrating and tedious at times.

Customer relationships: Internet allows SMEs more personalised relationships between suppliers and their customers, due to their ability to collect information on customer's needs and behavioural patterns. The focus is therefore on establishing relationships with customers, based on learning their needs and desires, proposing the right products and keeping these relations active throughout. The role of technology in learning about customers is its ability to record every event in the relationship, such as customers asking for information about a product.

The interactive nature of Internet suits SMEs in dealing with their customers. It is especially conducive to developing customer relationships. This potential for customer interaction, which is largely asynchronous, facilitates relationship marketing and customer support to a greater degree than ever possible with traditional media (Hoffman et al, 1995).

Conclusion

The paper examines the opportunities and benefits of Internet usage in SMEs. It began by discussing SMEs and its importance to many countries and their contribution to job creation. It also discusses the distinctive characteristics of SMEs that make them different from larger organizations, their IT and Internet usage.

The versatility and capability of the Internet technology was demonstrated as an ideal platform for SMEs to participate in global market. The literature suggests that the use of the Internet particularly suit the type and the nature of SMEs businesses. The availability of universal and low

cost access to the Internet and World Wide Web and non proprietary technology, was widely seen as providing the basis for development of major global business opportunities and enabling the widespread use and implementation of cost-effective electronic commerce for SMEs.

Ideally, the Internet delivers a low-cost 24 hours a day/ 7 days a week access to a global IT infrastructure, which provides SMEs with on-line information sources on a global basis. It allows small businesses to gain increase market share and attract prospective customers in a way equal to or better than those which large organisations have been able to access, but with only a fraction of the cost. SMEs can gain substantial benefits by using this open and relatively low-cost information infrastructure to gain competitive advantage against their less entrepreneurial competitors.

The literature suggests that the potential of the Internet to be exploited by SMEs is enormous and the benefit to be gained is only limited by the imagination of the business users. Although it has been suggested that the use of the Internet present exciting opportunities to companies of different sizes, however, for Internet to be deemed suitable for commerce, many technical and economic barriers must be overcome, including security and the limitation of infrastructure. The major issues, facing SMEs is how to manage this changing technology in such a way as to realise the opportunities whilst avoiding the risks.

References

Auger, P., and Gallagher, J., (1997), "Factors affecting the adoption of an Internet-based sales presence for small businesses", *The information society*, 13, pp. 55-74

Barnes, D., Dyerson, R, Harindranath, G., (2008), "If it isn't broken, don't fix it", <http://www.rhul.ac.uk/Management/Research/PRISM/index.html>

Behrendorff, G. and Goldsworthy, M., (1996), "Electronic commerce for Small to Medium Sized Enterprises", Centre for Electronic Commerce, *Monash University, Australia*

BERR (Business Enterprise and Regulatory Reform), (2008), <http://stats.berr.gov.uk/ed/sme>

Blili, S., and Raymond, L., (1993), "Information technology: threats and opportunities for small and medium enterprises", *International journal of information management*, vol. 13, pp. 439-448

Caldeira, M.M. and Ward, J. M. (2002), "Understanding the successful adoption and use of IS/IT in SMEs: an explanation from Portuguese manufacturing industries", *Information Systems Journal*, Vol. 12, pp 121-152.

Cameron, J., and Clarke, R., (1996), "Towards a Theoretical Framework for Collaborative Electronic Commerce Projects involving Small and Medium-Sized Enterprises", *Proc. 9th Int'l Conf. EDI-IOS, Bled, Slovenia*.

CFIB, (2000), "Internet Use among Small and Medium-sized Firms" www.bcstats.gov.bc.ca/pubs/sbq/sbq01q1.pdf

Clarke, R., (1997), "Promises and Threats in Electronic Commerce", <http://www.anu.edu.au/Roger.Clarke/EC/Quantum.html>.

- Clarke, R., (1996), "Issues in Technology-Based Consumer Transactions", <http://www.anu.edu.au//Roger.Clarke/SOS/SCOCAP96.html>
- Cragg, P., King, M., (1993), "Small-firm computing: Motivators and Inhibitors", *MIS Quarterly* pp. 47-59
- DeLone, W., (1988), Determinants of success for computer usage in small business, *MIS Quarterly* (March), pp. 50-61
- Dixon, T., Thompson, B., McAllister, (2002), "The value of ICT for SMEs in the UK: A critical Literature Review", <http://www.cem.ac.uk/itribe.htm>
- DTI (Department of Trade and Industry), (2009), <http://www.dti.gov.uk>
- DTI (Department of Trade and Industry), (1997, 1998, 1999), "moving Into the Information Age: An International Benchmarking Study", <http://www.dti.gov.uk>
- Drucker, P., (2002), "Managing in the next society", *Truman Talley Books*, New York.
- Hoffman, D.L, Novak, T.P. and Chatterjee, P., (1995), Commercial Scenarios for the Web: Opportunities and Challenges, *JCMC*, Volume 1, Issue No. 3.
- Iacovou, C., Benbasat, I, and Dexter, A., (1995), "Electronic Data Interchange and Small Organisations: Adoption and Impact of technology", *MIS Quarterly*, 19(4): 465-485
- Igbaria, M., Zinatelli, N., Cragg, P., and Cavaye, A., (1997), "Personal computing acceptance factors in small firms: A structured equation model", *MIS Quarterly*, September
- International Data Corporation, "Internet Commerce and Usage in Australia 1997-2002", <http://www.idc.com.au/PR-ecom.htm>
- Jeoffrey, M. and Roberts, R., (1997), "The Challenge of Exploiting Electronic Commerce", *7th BIT Conference, Manchester Metropolitan University, UK*
- Kalakota, R., and Whinston, A.B., (1997), "Electronic Commerce: A Manager's Guide", *Addison-Wesley*, Reading, MA
- Lawrence, J.E., (2009), "The Utilization of E-Commerce by Small to Medium-sized Enterprises: A U K Perspective", *IADIS International Conference Information Systems*, Barcelona, Spain
- Lawrence, J.E., (2008), "The Challenges and Utilization of e-Commerce: The Use of Internet by Small to Medium-sized Enterprises in the United Kingdom", *Information, Society and Justice* Volume 1 No. 2
- Lawrence, J.E., (2002), "The Use of Internet in Small to Medium-Sized Enterprises", *PhD thesis, University of Salford, UK*
- Lawrence, J.E., and Hughes, J., (2000), "Internet usage by SME's: A UK perspective", *13th International Bled Electronic Commerce Conference, Bled, Slovenia*
- Levy, M., and Powell, P., (1999), "Emerging Technology: can the Internet add value for SMEs?" In *UKAIS Conference Proceedings*, pp. 438-450, University of York, McGraw-Hill

Levy, M., and Powell, P., and Yetton, P., (1998), "SMEs and the gains from IS: From cost reduction to value added", in *proceedings of IFIP 8.2/8.6, Helsinki*, Finland, December

Lymer, A., Johnson, R. and Baldwin, A., (1997), "The Internet and the Small Business: A study of impacts", <http://www.isoc.org/inet98/proceedings>.

MacGregor, R.C., Bunker, D.J., and Waugh, P., (1998), "Electronic Commerce and Small/Medium Enterprises (SMEs) in Australia: an Electronic Data Interchange (EDI) Pilot Study", *Eleventh International Bled Electronic Commerce Conference, Bled*, Slovenia.

Mason, R.M., (1997), "SME adoption of electronic commerce technologies: Implication for emerging national information infrastructure", *Systems sciences, Proceedings of the thirtieth Hawaii international conference on information systems*, pp. 495-504

Neches, R., Neches, A., Postel, P., Tenenbaum, J.M., Frank, R, (1994), "Electronic Commerce on the Internet", <http://info.broker.isi.edu/fast/articles/EC-on-Internethtml>

Observatory of European SMEs (2007), "Competence development in SMEs", *European Commission*

Pavic, S., Koh, S.C.L. Simpson., M. and Padmore, J. (2007), "Could e-business create a competitive advantage in UK SMEs?" *Benchmarking: An International Journal*, Vol.14, No.3 pp.320-351.

Pigneur, Y., (1996), "A Framework for designing new information systems", <http://inforge.unil.ch/vp/pub/toFUNDP.htm>

Pool, P.W., Parnell, J.A., Spillan, J.E., Carraher, S. and Lester, D.L. (2006), "Are SMEs meeting the challenge of integrating e-commerce into their businesses? A review of the development, challenges and opportunities", *International Journal of Information Technology and Management*, Vol. 5, No 2/3, pp 97-113

Poon, S., and Swatman, P., (1998), "Small Business Internet commerce Experience: A Longitudinal Study", *Eleventh International Bled Electronic Commerce Conference*, Bled, Slovenia

Poon, S., and Swatman, P., (1996), "Small business alliances: A frame-work for Internet-enabled strategic advantage", *Proceedings of the 29th Hawaii conference in systems science*, Hawaii

Poon, S., and Swatman, P., (1995), "The Internet for small businesses: Opportunities, government policies and implications", *Proceedings of the 5th Internet society conference, INET'95*, Hawaii

Quelch, J. and Klein, L. (1996) "The Internet and International Marketing", *Sloan Management Review*

Raymond, L., (1985), "Organisational characteristics and MIS success in the context of small business", *MIS Quarterly*, March, 9(1), pp. 37-52

Reynolds, W., Savage, W. and Williams, A. (1994) *Your Own Business: A Practical Guide to Success*, ITP.

Riemenschneider, C. K., and McKinny V. R., (1999), "Assessing the Adoption of Web-based E-Commerce for Business: A research proposal and preliminary findings", *The International Journal of Electronic Commerce and Media*, volume 9, (1/2): pp. 9-13.

Turban, T., King, D., McKay, J., Lee, J., and Viehland, D., (2008), "Electronic commerce 2008, a managerial perspective", *Pearson Prentice Hall*, New Jersey

Tuunainen, V.K. and Saarinen, T., (1997), "EDI and Internet-EDI: Opportunities of Effective Integration for Small Businesses", in Galliers, R., Murphy, C., Hansen, H.R., O'Callagiran, R., Caisson, S., and Loebbecke, C., (Eds.), *Proc. ECIS*, Cork.

Wymer, S.A. and Regan, E.A., (2005), "Factors influencing e-commerce adoption and use by small and medium businesses", *Electronic Markets*, Vol. 15 No. 4, pp 438-453