

# Information Communication Technology (ICT) as a management tool for small and medium tourism enterprises (SMTEs)

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## Abstract

The information communication technologies (ICTs) has transformed the small medium tourism enterprises (SMTEs) sector globally. The management of ICT-driven re-engineering of SMTEs has generated a new interest that provides impetus for small business sector universally. Therefore, the purpose of this paper is to shed some light on the importance of ICT as an enabler to improve the management of SMTEs within the context of developing economies such as South Africa. In an endeavour to address the primary purpose of this paper, the methodology that was adopted involved reviewing the existing literature. A comprehensive literature review was undertaken in order to comprehend the importance of ICT as tool to manage the small tourism business. International and national data searches were be done by the Library of the Nelson Mandela Metropolitan University and to date include: Sabinet databases; ISAP (National library of South Africa); and SAe Publications. Consequently, this paper highlights the paucity of knowledge in capitalising on ICT as a management tool to gain competitive advantage. Furthermore, it is worth noting that the dissemination of ICT tools has, in the past as well as currently, had effects on the management aspect of the businesses. Moreover, the management of businesses within the tourism sector through ICT is not well understood. The lack of understanding can be attributed to lack of appreciating technology as a new and modern way of connecting with existing and potential customers. The implication of this has resulted to high business failure (South Africa (SA) has one of the lowest small business survival rates in the world).

**Keywords:** Information Communication Technology (ICT) Small Medium Tourism Enterprises (SMTEs), Tourism, Management tool

## Introduction

Bethapudi (2013) highlights that the information communication technologies (ICTs) has transformed small tourism enterprises globally. The ICT-driven re-engineering of small medium tourism enterprises has increasingly generated a new paradigm shift, embodied the alteration of the industry structure and the development of a whole range of opportunities and threats. As ICT plays a major role in the development of small medium tourism enterprises, it, therefore, is an inevitable part of the tourism industry's expansion. As is, the vast majority of the hotels, resorts, travel agents, tour operators and tourism organisations require upgrading in line with the latest ICT trends (Bethapudi, 2013). Hence utilising ICT as a management tool of these enterprises must be understood as the ICT evolution in the industry, through keeping abreast with the developments.

The United Nations World Tourism Organization (UNWTO) (2015) acknowledges that, increasingly, ICTs have come to play a critical role in the competitiveness of tourism organisations and destinations, as well as in the entire industry as a whole. Buhalis (2003) shares the same sentiments that ICTs have also radically changed the efficiency and effectiveness of tourism organisations and the way in which businesses are conducted in the marketplace, as well as how consumers interact with organisations. O'Connor (2000) acknowledges that, increasingly, ICTs as a management tool have come to enable travellers to access reliable and accurate information, as well as to undertake reservations in a fraction

of the time, cost and inconvenience that is involved in using more conventional methods. For example, Mills and Law (2004) state that use of the Internet has dramatically changed tourism consumer behaviour. ICTs as a management tool also provide a very effective mechanism by means of which consumers can submit their displeasures and complaints.

The International Labour Office (ILO) (2010) asserts that ICT allows for customer–management relations and supply chain management to be combined into a single source that facilitates a variety of operations – product selection, ordering, fulfilment, tracking, payment, and reporting – that can be performed with one easy-to-use tool. Mihajlović (2012) perceives that the use of ICT as a management tool ultimately cuts costs, by enabling the provider to be in direct contact with the consumer. Furthermore, this also impacts on employment through the need for the required maintenance of ICT equipment. The synergistic interaction between technology and tourism has transformed the nature of tourism products, processes, businesses, and competition. Besides assisting small tourism suppliers in the development of new products, the creative and innovative use of technology exhibits wide-reaching potential for service innovations and is thus of great importance (Mihajlović, 2012).

Moutinho (2000) puts forward the argument that the competitive advantage of enterprises can be achieved by tourism managers who embrace new information technology (IT). This will actively create participation in the technology planning process so as to identify new users, explore new markets, and manage their development. Braun (2008) reiterates that ICT offers the ability to foster improved competitive performance through networking, clustering and the formation of alliances, as well as through providing the richness of content that is increasingly required by consumers.

However, the development of ICTs has also led to changes in the forces of demand and supply, as well as ushering in a second industrial revolution in the late 1990s. George (2011) postulates that technological advances have globally affected organisations at all levels. Cooper, Fletcher, Fyall, Gilbert and Wanhill (2005) caution that, perhaps, the greatest challenge that organisations face today is to identify and train managers who will be effective and innovative users of ICTs, thus leading to technology-based decision-making that is more efficient in many ways.

Furthermore, they insist that, as a result, the intellectual capacity has become a critical asset, with continuous education and training being of pivotal importance to innovativeness (Cooper et al., 2005). The education and training background becomes more pivotal to SMTE owners in order to ensure the businesses are managed in a sustainable manner through the utilisation of the ICT as tool for managing these small tourism businesses in South Africa.

### **The issues at hand**

Small medium tourism enterprises can utilise ICT as management tool for building awareness and promotion of their services and products, and for penetrating the potential global markets. Increasingly, ICT has become an enabler that plays a pivotal role in the competitiveness of small tourism businesses. Consequently, the current paper sought to investigate utilisation of ICT as management tool within the context of small tourism businesses. Furthermore, there is paucity of literature that addresses the utilisation of ICT as a management tool within the South African context. Moreover, there seems to be an anecdotal evidence that propose a simple model on how ICT can be utilised as a management tool to manage small tourism businesses. It is therefore, against this background, that this article explores utilisation of ICT as a management tool for SMTEs. The paper also aims to elucidate the benefits of ICT to small tourism businesses, especially in developing economies such as South Africa.

## **Methodology**

In an endeavour to investigate the utilisation of ICT as a management tool the methodology that was adopted involved reviewing the existing literature. A comprehensive literature review was undertaken in order to comprehend the importance of ICT as tool to manage the small tourism business. International and national data searches were be done by the Library of the Nelson Mandela Metropolitan University and to date include: Sabinet databases; ISAP (National library of South Africa); and SAe Publications; EBSCO: Master File premier, Business Source premier, Academic Source premier; FS Articles First; Kovsidex; SA Cat and FS Worldcat; ScienceDirect; UPECAT; Google searches; Dialog; Dissertation Abstracts database. Primary and Secondary data sources from a National and International perspectives were consulted to gain a succinct understand of this phenomenon. More specifically, this process focused on the contextual analysis of the data collection methodologies of numerous diverse authors and local and international case studies gathered through a rigorous qualitative and quantitative research on the SMTE sector.

This holistic analysis conceived a thorough understanding of a host of complex issues pertaining to the quality ICT tools on managing the SMTE's service and product offering.

## **The Overview of ICT and its importance to managing small tourism business**

Cooper et al. (2005) espouse that ICT is the application of digital tools for the conducting of business functions and business. Furthermore, Buhalis (2003) highlights that ICTs are made up of ranges of electronic tools that facilitate the operational and strategic management of organisations specifically emerging business in the tourism industry, by enabling them to manage their information and, thus, to communicate succinctly with their stakeholders. Moreover, Beekman (2003) points out that ICT is a term that is applied to describe computers and communications equipment that are able to create software, to transmit information, and to manipulate it in various formats in order to manage the small tourism businesses effectively.

Donath and Boyd (2004) and Madden and Zickuhr (2011) are off the view that the social networking are on ascending trajectory. Hence, such sites usually feature requests for assistance, which can be attributed to the new phenomenon of electronic word-of-mouth (eWOM) communication. The word of mouth is a powerful tool that has potential to provide impetus to small tourism business. It is for this reason that ICT as a management tool is such an imperative aspect to managing a small tourism businesses. Therefore, these sites offer an interesting opportunity for businesses to disseminate information to their clients in their catchment areas. As such, some businesses have recognised the potential benefits to be gained from SNSs, including increased networking, opportunities for better presentation to clients and customers, and the payment of closer individual attention to all parties concerned (Buhrmester et al., 2011).

York (2013), on the other hand, gives a business view of SNS, in stating that a company's social business network comprises all the underlying social network relationships. Beginning with a company's employees at the centre, extending out to include a company's customers. The vendors and investors in the next circle is followed by a company's prospects, partners, and competitors, as well as the industry's influencers, the press, linked associations, and so forth. As such a comprehensive social network that comprises the industry's ecosystem play an important role in this regard. Although advertising on social networks can be profitable, it is the weakest business use of the social media channel in some instances.

Stephenson (2011) puts forward the idea that innovation can be defined as the process of implementing new ideas so as to create value for an organisation. This might mean creating a new service, system, or process, or enhancing existing ones. Innovation generally refers to the changing or creating of more effective processes, products and ideas than have been

available in the past and it can increase the likelihood of a business succeeding. Moreover, businesses that innovate tend to create more efficient work processes and to benefit from enhanced productivity and performance. Innovation certainly focuses on the developing of something new, original and radically different from what has gone before (Stephenson, 2011). The Conference Board of Canada (CBC) (n.d.) highlights innovation as the process through which economic and social value is extracted from knowledge through the generation, development and implementation of ideas, so as to produce new or improved strategies, capabilities, products, services, or processes.

According to Van Zyl, Inversini and Rega (2015), the process of maximising the benefit that is to be gained from search engines requires a solid understanding of the target market(s) concerned, so as to be able to establish their Internet behaviour. In this context ICT as a management tool is viewed as epitome of SMTE management. Moreover, doing so is likely to make a business available on the touch of a button. The power of search engines today can be compared and contrasted to the emergence of computer reservation systems (CRSs). Henceforth, search engines are essential for global businesses, whether small, medium or large, to communicate information regarding their products to overseas markets, and to enable them to expand into foreign markets in the future (Van Zyl et al., 2015).

Werthner and Ricci (2004) aver that computerised networks and electronic distribution in tourism emerged during the early 1970s, through the implementation of internal CRSs, which, first of all, became central to the distribution mix and strategy of airlines. CRSs are widely regarded as the critical initiators of the electronic age, as they formulated a new travel marketing and distribution system. The management and implementation of such developments for SMTE is vital for the managers of these businesses to be effective. CRS is essentially a database that manages the inventory of a small tourism enterprise, while distributing it electronically to remote sales offices and external partners. Intermediaries and consumers can access the inventory, and they can make and confirm bookings thereby (Maedche & Staab, 2002; 2003). Therefore, managers of SMTEs are compelled to take full advantage of these opportunities that are presented by ICT innovation and development.

According to Stamboulis and Skayannis (2003), ICT is the reconstructive factor that introduces a new interactive interface between the tourism providers and the tourists, with it having pervasive effects on the creation, production and consumption of the tourism product. Shanker (2008) highlights that the development of ICT has transformed the contemporary business environment across the world. It has led to the evolution of a new information economy that is digital in nature. ICT is a broad term that refers to multiple communication technologies, ranging from simple to complex and embracing numerous systems, including: cell phone applications (social networks); the Internet (Opera Mini); Wi-Fi; the global positioning systems (GPSs); the geographic information systems (GISs); convergence (data, voice and media); and cloud computing. It is suggested that, according to Shanker (2008), ICT cuts across the geographic boundaries of nations. These technologies are creating a new global marketplace that is more competitive than ever before. With e-commerce and e-business advancement, the market has an increasing number of opportunities and possibilities being made available in it. The ability to reach a global audience, to obtain instant market information, and to conduct electronic business transactions has increased the extent of economic efficiency, as it has opened up markets for goods and services from the developing world. Henceforth, managers to small tourism businesses can ill afford to utilise ICT and management tool.

Sinah (2014) suggests that the face of the world as changing rapidly, due to the steadily ongoing invention of ICTs. The acceleration of the pace of change has led to a collision between technology and tourism which, in the past, has brought about essential changes in the understanding of the whole tourism industry. Developments in ICTs have come to revolutionise both economies and enterprises. Inevitably, the tourism industry has also been

affected by the technological revolution. Both tourism destinations and enterprises increasingly need to adopt innovative methods, and to enhance their competitiveness.

Law, Buhalis and Cobanoglu (2014) note that the advancement and development of ICT in general, and e-business in particular, presents key challenges and opportunities for both tourism and hospitality ventures. So much so that the managers of these small tourism businesses are expected integrated ICT as part of their business strategy especially during the 21<sup>st</sup> century. ICT technologies dominate the global business world, the times of relying on managing businesses seating behind the desk have reached a dead end. Thus appreciating ICT as management tool for small tourism businesses is highly practiced in developed economies. Similarly in the context of developing economies ICT must be embraced as a mechanism of managing a small tourism business.

### **The nexus between tourism and ICT**

According to Ranasinghe and Deyshappriya (2012), tourism is a major foreign exchange earner and a pillar industry for many countries across the globe. From a holistic approach, it is a strongly interlinked discipline, with ties to other sectors of the given economy. Chen, Lin and Kuo (2013) view small tourism businesses to be a powerful wagon for socio-economic advancement and development, and, as such, small tourism businesses are seen to be creating capacity for people to engage with the industry. However, the past decade's development of ICT and social media has dramatically influenced and changed how tourism and hospitality sectors produce, market and deliver their products, and their use has, unquestionably, become an essential tool and strategy. Karimidizboni (2013) contends that the accelerated collision between technology and management of tourism in recent years has brought about indispensable changes in the understanding of the nature of tourism, with all its economic ramifications, within the tourism industry as a whole.

Consequently, the role of ICT as management tool in the tourism sector cannot be underestimated, as tourism is one of the major economic sectors that has largely benefited from it (UNWTO, 2011). Dudovskiy (2014) extends UNWTO's statement, by acknowledging that ICTs have had a tremendous impact on virtually all industries and sectors of the economy, as well as on specific business businesses processes. Furthermore, recent studies (Dickinson, Ghali, Cherrett, Speed, Davies & Norgate, 2012; Kramer, Modsching, Hagen & Gretzel, 2007; Lamsfus, Xiang, Alzua-Sorzabal & Martin, 2013; Wang & Fesenmaier, 2013) have also shed light on how mobile technologies, in particular mobile applications, are actually mediating, or impacting on, the tourist experience and behaviour.

The Internet has empowered the distribution of multimedia applications, including textual data, graphics, pictures, videos, and sounds. Such search engines as Google and Yahoo provide unprecedented capabilities to find any relevant information, including that relating to destinations and products (Alt & Klein, 2011). In short, an electronic marketplace has gradually emerged, with suppliers having developed Internet interfaces that enable communication with clientele and partners to enable direct sales, as acknowledged by Buhalis and Deimezi (2004). The sophisticated nature of the tourism industry can be simplified through the utilisation of ICT as a management tool. The availability of ICT creates interface between the tourism product and tourists. The visitors nowadays can view the product offering through ICT before arriving at a destination and make an informed decision regarding which tourism activities engage with. This affirms the significance of ICT as management tool for small tourism businesses.

The availability of Internet resources, and the Internet itself, offers the tourism industry opportunities to provide wider, deeper and more customised offerings than before to a pool of clients, by achieving active relationships at affordable cost, and without substantially

altering the quality of information delivered (Buhalis & Licata, 2002). According to Shanker (2008), the contemporary information society has made tourism a highly information-rich and intensively structured sector, as the dispersion of ICT has huge potential impacts for tourism business. Alam (2009) offers the fact that, nowadays, the business world has become deeply influenced by ICT, and the application of ICT among businesses is widespread. The impact of ICT as management tool on businesses relates to the facilitation of communication among organisational stakeholders, with it serving as an effective sales channel, and providing an effective platform for engaging in marketing and other like-minded pursuits (Wang & Xiang, 2012).

Against this background ICTs as management tools have become such important tools in an organisation's capabilities to endure and to extend to a position of advanced competition in the global economy, and, moreover, in the digitalised economy (Munar, 2012; Parsons & Oja, 2013). A nexus between tourism and ICT can, unquestionably, not be established without ICT having given organisations new managerial ways in which to retrieve information (Alam, 2009). The last decade's development of ICT as a management tool, and especially of the social media has, undeniably, reinvented how the tourism and hospitality industries produce, market and deliver their offerings, as well as communicate both internally and externally (Leung, Law, Hoof & Buhalis, 2013). Lee and Wicks (2010), Buhalis and Law (2008) and Munar (2012) argue that ICT as management tool has become an invaluable business tool and strategy that is capable of being used efficiently within the travel sector. However, its use does require up-to-date knowledge of the latest technological trends. ICT has left an amenable mark to the SMTE sector in recent times.

### **ICT transformation and the impact to the Management of Small Tourism Enterprises**

Lanvin and Qiang (2003) provides a conjecture that ICT can be viewed as both a means and an end in terms of development. Effectively, the economies of two-thirds of the world are based on the provision of services. The rise of India and the Philippines, for example, together with other global ICT players, including many developing countries, has led to the adoption of ICT as a management tool and a matter of national policy. Moreover, this new era has seen most African countries suffer what many scholars refer to as the digital binary divide (Dutta, Lanvin & Paua, 2003). Organisational culture is a crucial factor in whether or not the adoption of ICT succeeds, with the provision of, an access to, ICT also affecting employees' opportunities to learn (Jackson, 2005). Developing economies are suffering due to lack of access to ICT because accessing internet is expensive in the South African context in comparison to other African states. Therefore, this can be an impediment to the small tourism businesses.

Buhalis and Law (2008) acknowledge that, as part of ICT, the development of such search engines as Trip Advisor has, in the past decades, influenced a number of travellers around the world. Such technologies are used for planning and for sharing experiences related to their trips at the touch of a button. Since 2005, social media and Web 2.0 (the new generation of the World Wide Web) have provided a platform for a group of Internet-based applications that have made it possible for the creation and exchange of user-generated content (Kaplan & Haenlein, 2010).

Minghetti and Buhalis (2010) strongly agree that tourists in developed countries, and travelling between developed and developing countries, have come to suffer from a multiplicity of technological divides. This has led to different levels of digital exclusion from the benefits of technological innovation that might otherwise have been used to reach new frontiers and that might else have enabled the destinations concerned to become competitive. Tan and Eze (2008) see innovation as an idea, object or practice that allows the successful exploitation of fresh ideas that are desirable and viable for a society or individual

to adopt. Small tourism enterprises managers are well poised in this regard to capitalise on technology to drive their businesses.

Ali and Frew (2014a) stress that ICT has become a critical element in the modern tourism industry. ICT has fundamentally transformed the effectiveness and efficiency of tourism organisations, the way in which they conduct business, and consumer interactions with stakeholders. The ability to achieve such transformation can be attributed to the use of smart technologies with regards to such social networking sites (SNSs) as WhatsApp, as well as to such e-marketing tools as Safari.com, and such search engines as Tuvaro (Lee, Xiong & Hu, 2012; Pan et al., 2011).

Hultkrantz (2002) contends the fact that ICTs have become a pillar facilitating the creation of platforms of interaction between firms and consumers. Hence, Kramer, Jenkins and Katz (2007) remark that ICTs serves as a pioneer and as a powerful catalyst for addressing the needs and interests of low-income communities in developing countries. Red (2012) comments that the introduction of new technologies has created a new type of consumer behaviour, which is changing the way in which tourists look for information when they travel (Gretzel, Sigala & Christou, 2012). Shaw, Bailey and Williams (2011) elaborate on the above, in saying that ICTs have played a distinguished role in advancing the relationship between producers and consumers.

Buhalis and Law (2008) contend that the use of such technologies as mobile devices, social networks, applications, and tablets is constantly increasing. Khan, Hasan and Clement (2012) point out that the unparalleled growth of ICT as management tool has dramatically reshaped business operations, especially in relatively large organisations. Lopez-Ncolas and Soto-Acosta (2010) offer a strong argument that, in contrast with such awe-inspiring high-tech global advances, small firms tend to be slow to adopt ICT use as a management tool and application, despite the profound benefits that such businesses should be able to achieve with its use at their disposal.

### **ICT in the context of SMTEs in South Africa**

Esselaar and Miller (2001) argue that little reliable information is publicly available on the state of the ICT industry in South Africa. Kapurubandara and Lawson (2006) mention that the adoption of ICT by small tourism businesses in developing countries, especially in Africa, has not yet been sufficiently researched. In this context, this papers argues the importance of ICT as a management tool for small tourism businesses. Thus managers of small medium tourism business are well poised to utilise ICT as tool for managing these enterprise. The amount of research regarding the adoption of ICT by businesses in developing countries is limited in contrast to findings from developed economies cannot be transferred to developing countries (Kapurubandara & Lawson, 2006).

As argued above, the developed economies are tending to forge ahead with new inventions, and they tend to be ahead with the e-transformation of businesses, whereas the developing world is still in the dark, and struggles to keep pace with the emerging technologies. For instance, countries like Nigeria, Angola and Cameroon in Africa, to mention just a few, face a dire future in terms of the likelihood of them being able to advance their economies if the use of ICT as a management tool for their businesses is not incorporated into national plans that also support small tourism businesses. This initiative is strategically aligned with the future that is envisaged of the larger population sizes involved, as well as the lack of ICT infrastructure, and the composition of the informal business sector, which is also complex in nature (Kapurubandara & Lawson, 2006).

According to Gillwald, Moyo and Stork (2012), the ICT sector in South Africa continues to demonstrate dynamic growth, which is driven, in particular, by the mobile sector. Furthermore, South Africa has the characteristics of a developing economy. A relatively

sophisticated ICT as a management tool within small business sector has emerged in South Africa over the past two decades. However, despite it having a sophisticated ICT market, South Africa still lags behind comparatively to other African countries, with it ranking poorly on the overall global indices (Gillwald et al., 2012).

According to the Western Cape Destination Marketing, Investment and Trade Promotion Agency (WESGRO) (2014:3), the South African ICT market is made up largely of electronics and telecoms, with many overlaps between the sectors concerned. Furthermore, ICT access in the country is ranked in 87th place out of 157 countries and, in terms of ICT use, the country is ranked 74th, with a poor score of 2.35. In terms of ICT skills, South Africa is ranked 95th, with an overall poor score of 6.75 (WESGRO, 2014). This scenario presents a perfect opportunity for the SMTEs to explore different ideologies of utilising ICT as a management tool.

In recent times, innovative resolutions are significant for the promotion of tourist regional development. As such, swift developments in smart ICT in the field of hardware and software products appear to offer tremendous opportunities in relation to tourism development (Battle, Calderon & Lopez, 2009; Bell, 2008; Santinha, Castro & Sobral, 2010; Van der Meer & Van Winden, 2003). Hjalager (2010) points out that, over the past two decades, a piercing inquiry into the regional economic development processes has progressively looked more intently towards the determinants in terms of national, regional or sectoral innovation systems. Henceforward, innovation in tourism, and how it is applied within the arena of tourism development, will be likely to form an undeniable continuum, as there is ongoing change. An instance of this is the yet-to-be implemented electronic tourist visa of the Southern African Development Community (SADC). Such inventions have motivated tourists, especially those coming from evolved economic blocs, to demand increased access to ICT facilities during their trips to destinations. In addition, the provision of ICT has facilitated the emergence of new structures (Marrocu & Paci, 2010).

According to Santinha et al. (2010), a globalised economy raises new challenges for the regional development of tourism. Due to the concentration of the people and to the political, economic, and social functions that are involved, regions are starting to be thought of, and designed as, active components of a globalised village. Katsoni (2011) points out that, despite the increasing importance of ICT in relation to the development of the world's regions, the exact nature and scale of the challenges set for policymaking throughout the whole tourist sector still remains unclear. Therefore, the existence of a globalised economy raises new challenges for the development of tourism in the regions. Given these challenges and the ICT infrastructure for economic development, tourism is seen to act as a driver for economic growth and social development. Accordingly, the exploitation of technology is crucial to the tourism industry (Garzotto, Paolini, Speroni, Proll, Retschitzegger & Schwinger, 2004). Numerous empirical studies point out that destination management organisations (DMOs) should spearhead ICT's integration into tourism developmental plans, as doing so would also assist small tourism firms to understand and utilise ICT, while shunning its negative effects (Taylor, 2005).

Karimidzboni (2013) postulates that ICT is a key element in the external environment in terms of the development of tourism, due to innovations that have been introduced into the industry in recent years. Given that the development of ICT's infrastructure and its use have had positive effects on economic growth, tourism often acts as a driver of economic and social development, especially in the developing areas. Being so, the exploitation of technology is critical for the tourism industry to achieve competitive advantage, and for it to be able to provide economic benefits for the areas concerned, thus reducing the asymmetric distribution of economic, political, and cultural capital globally. The tourism industry can be seen as one of the first business sectors whose business functions are almost exclusively using ICT (Garzotto et al., 2004).

### **The benefits of ICT for small tourism business organisations**

According to the UNWTO (2001), ICT plays a pivotal role in competitiveness, in improving profits, and in achieving success for tourism organisations, as well as it also propelling the amount of interactivity between tourists, and the amount of information sharing. Rapid technological development paradoxically means that the more powerful and complex that ICT becomes, the more affordable and user-friendly it becomes, thus enabling more people and organisations to take advantage of the benefits that it offers.

Kramer et al. (2007) state that, above all, ICT has the capacity to increase efficiency, to boost productivity among employees, and to enhance access to services, goods, information and, most importantly, new markets. Thus, demand for the benefits presented by ICT is high. Therefore, if the tools or complements are right, including skills, support systems, functional markets, supportive policy frameworks, and connectivity, the correspondence among different ICTs will be high (Kramer et al., 2007). Katsoni (2011) acknowledges that advances in electronic-based information and communication technologies are rapidly transforming social and economic conditions across the globe. Hence, Hays recommend that social networking sites can be adopted as a marketing tool, even if small tourism businesses cannot afford to make use of advanced ICT tools. Sinah (2014) points out that ICT plays a critical role in promoting the tourism sector, in terms of enabling tourists to search for information and, mostly, to purchase tourism products that are made available at their fingertips.

Sheahan (2014) seems inclined towards the idea that ICT benefits businesses worldwide by enabling them to work more efficiently in order to maximise productivity. Hence, faster communication, the protection of records, and electronic storage are some of the advantages that ICT can bring to a business. Communication is essential to the business world, with ICT providing a quick and efficient way in which to satisfy business need in this regard. Undoubtedly, computer systems are widely applied and, in so doing, it is advantageous to incorporate ICT into business operations (Sheahan, 2014).

### **Strategy recommendations and possible interventions**

The exploratory research revealed that South Africa is lagging behind in relation to utilising ICT as a tool for management in order to gain competitive advantage in the market place. South Africa is ranked 87 out of 145 in its ability to utilise ICT with the business environment. Consequently, it is virtually impossible to effectively and efficiently manage a small tourism business without utilising ICT resources effectively. Small tourism businesses are not in a better position to disseminate relevant information about a destination and their product without access to ICT that has brought the world together. It is only 47 percent of the South Africans that have access to the internet. This revelations presents a conundrum to the country because the country is still a developmental stage. The lack of access to the internet has far reaching implications in relation to communicating with the global fraternity.

Congruence statistics of small tourism businesses of in different categories (customers, market share, performance), or across various sectors of the economy and geographic borders are effectively captured presented through ICT tools. Hence management of these businesses through ICT is critically important. The lack of awareness in utilising ICT as management capacity tool is particularly noticeable among small tourism businesses. Due to these limitations, the specific number of the small tourism businesses that are using ICT as a tool is unknown. Therefore, the extent to which ICT as tool essentially contributes to managing small tourism businesses is also speculative and number of small businesses tourism businesses that utilise ICT tools to gain competitive advantage. This lack of accuracy of information pertaining to utilisation of ICT as tool largely impedes on the growth and development of SMTEs. Also, a lack of succinct and reliable data remains a conundrum

that block the South Africa's attempt to develop more effective policies and support schemes for small tourism enterprises. Against this background, the following interventions are suggested:

First and foremost, intensify awareness of the ICT tools that can be implemented as part of management capacity of small tourism business promotion programmes and incentives available to small medium tourism enterprises. Rigorous monitor and evaluate SMTE utilisation of ICT tool programmes on a regular basis. This will enable government to stay abreast of the relevance and practicality of the various programmes and schemes. The Tourism Enterprise Program (TEP) must play a leading role in this regard because it has direct link to these small tourism businesses. From the outset the objective of analysis of the ICT tools, current programmes and schemes will be highlighted and reasons that necessitate the low awareness of utilising the ICT as a management capacity tool. This is deemed to be a solid point of departure upon which the current management approaches and interventions can be evaluated to ascertain the sustainability, suitability and appropriateness in transforming the small tourism businesses.

This reiterates the recommendation that small tourism business development interventions must get to the roots level where small tourism businesses actually conduct their day to day activities. The ICT management tools must be looked at in the context of the small tourism businesses product or service offering, specific localities to address small tourism businesses' diverse characteristics, needs, constraints and opportunities. The uneven and incoherent institutional support for small tourism businesses and especially the generally somewhat inaccessibility of technological infrastructure is restrictive to small tourism businesses. Government is implored to lower the sky rocketing costs and cumbersome regulatory compliance and bureaucratic processes associated with starting a business. To back up this statement, government should ICT friendly to improve administrative efficiency in order to reduce unnecessary red tape. This will also require the creation of uniform approach to use ICT as tool to manage the small tourism businesses and create a level playing field, ensuring that such businesses are making inroads in the international arena.

These initiatives could be inculcated by adopting and rolling out ICT inclined policies that encourage the youth to establish their own businesses. This will emancipate the youth that suffers from high levels of unemployment in South Africa, with unemployment that has reached unprecedented levels and deal with sea of poverty that engulf our beloved country. Lastly, government must create incentives for small tourism businesses that use ICT as a management tool to reach new markets. This will not only encourage youth to be independent but to be employment generators and likewise stimulate start-ups of small tourism business. The tourism industry is one of the biggest industries in the world creating the highest number of jobs.

## **Conclusion**

This paper reviewed literature on SMTEs and also discussed the ICT as a management tool and contributions of ICT to empower small tourism business managers, and the constraints culminating from none utilisation of ICT as tool to enhance a tourism businesses.

Despite these shortcomings, the reflection on the ICT as a tool management of SMTEs sector created an ideal platform to recommend a conceptual policy framework that could enhance the utilisation of ICT as a tool to manage the small tourism businesses in job creation, economic empowerment through tourism. The paper argues that the narrative of lack of awareness in utilisation ICT as a management tool to develop and grow SMTEs cannot be looked at from a one size fits all approach. As evidenced internationally, the strategy of utilising ICT as management tool could promote access to and use of services by entrepreneurs to help them to operate efficiently and to grow their businesses.

Globally, there is an ascending trajectory towards the awareness that the promotion of SMTEs is underpinned by the utilisation of technology. Innovative entrepreneurship through ICT and new firm formation and growth is the only means of achieving sustainable global economic recovery and growth especially in the context of South Africa where poverty remains a hindrance to economic growth. Henceforth, the United States of America (USA) pointed out that the high growth and innovative entrepreneurship as the key element of their Innovation Strategy for achieving sustainable growth and quality jobs for their citizens. In similar vein, South Africa should vehemently eradicate the notion of dependence syndrome that has engulfed the country in recent times. Jobs cannot be sustained independent of entrepreneurship and business development.

## References

- Alam, S.S. (2009). ICT adoption in small and medium enterprises: an empirical evidence of service sectors in Malaysia. *International Journal of Business and Management*, 4(2):7.
- Ali, A. & Frew, J.A. (2014). ICT and sustainable tourism development: an innovative perspective. *Journal of Hospitality and Tourism Technology*, 5(1):4.
- Alt, R. & Klein, S. (2011). Twenty years of electronic markets research looking backwards towards the future: electronic markets. *International Journal on Networked Business*, 21(1):41-51.
- Battle, J., Calderon, R. & Lopez, J. (2009). Local e-government bench-learning survey. *Final report of the Euro Cities Working Group*.
- Beekman, G. (2003). Computer confluence: exploring tomorrow's technology. 5th ed. *New Jersey: Prentice Hall*.
- Bell, R. (2008). *Can e-government make communities more competitive?* Intelligent Community Forum.
- Bethapudi, A. (2013). The role of ICT in the tourism industry. *Journal of Applied Economics and Business*, 1(4):67-79.
- Braun, P. (2008). *Creating value to tourism products through tourism networks and clusters: uncovering destination value chain in business networking – trends and cases*. Hyderabad: Icafa Press.
- Buhalis, D. & Licata, M.C. (2002). The future of e-tourism intermediaries. *Journal of Tourism Management*, 23:207-220.
- Buhalis, D. (2003). *eTourism: information technology for strategic tourism management*. Harlow: Prentice Hall.
- Buhalis, D. & Deimezi, O. (2004). E-tourism developments in Greece: information communication technologies adoption for the strategic management of the Greek tourism industry. *Tourism and Hospitality Research*, 5(2):103-130.
- Buhalis, D. & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet. *Tourism Management*, 29(4):609-623.
- Buhrmester, M., Kwang, T. & Gosling, S.D. (2011). Amazon's mechanical Turk: A new source of inexpensive, yet high-quality data? *Perspectives on Psychological Science*, 6(3):4.

Chen, L.C., Lin, S. & Kuo, C.M. (2013). Rural tourism: marketing strategies for the bed and breakfast industry in Taiwan. *International Journal of Hospitality Management*, 32:278-286.

Cooper, C., Fletcher, J., Fyall, A., Gilbert, D. & Wanhill, S. (2005). *Tourism principles and practice*. 3<sup>rd</sup> ed. Essex: Pearce Education.

Dickinson, J.E., Ghali, K., Cherrett, T., Speed, C., Davies, N. & Norgate, S. (2012). Tourism and the smartphone app: capabilities, *emerging practice and scope in the travel domain*. *Current Issues in Tourism*, 1 (17): 84-1018.

Donath, J. & Boyd, D. (2004). Public displays of connections. *BT Technology Journal*, 22(4):71-82.

Dudovskiy, J. (2014). *ICT in the tourism and hospitality industry: literature review*. London: Cengage Learning.

Dutta, S., Lanvin, B. & Paua, F. (2003). *Global IT report*. Oxford: Oxford University Press.

Esselaar, P. & Miller, J. (2001). Towards a better understanding of the ICT sector in South Africa: problems and opportunities for strengthening the existing knowledge base. Johannesburg: *Tina James Consulting*.

Garzotto, F., Paolini, P., Speroni, M., Proll, B., Retschitzegger, W. & Schwinger, W. (2004). Ubiquitous access to cultural tourism portals. Paper presented to Database and Expert Systems Applications, 15th International Workshop on (DEXA 04), *Zaragoza, Spain, 30 August– 3 September*.

George, R. (2011). *Marketing Tourism in South Africa*. 3th ed. Cape Town: Oxford University Press.

Gillwald, A., Moyo, M. & Stork, C. (2012). *Understanding what is happening in South Africa: a supply-demand side of the ICT sector*. Cape Town: Research ICT Africa.

Gretzel, U., Sigala, M. & Christou, E. (2012). Social media change the name in the game in the tourism and hospitality industries. *European Financial Review*, 7 March.  
<http://www.europeanfinancialreview.com/?p=5648> [06 April 2015].

Hjalager, A.M. (2010). A review of innovation in tourism. *Progress in Tourism Management*, 31(1):3.

Hultkrantz, L. (2002). Will there be a unified wireless marketplace for tourism? *Current Issues in Tourism*, 5(2):149-161.

International Labour Office. (2010). Developments and challenges in the hospitality and tourism sector. Geneva: *International Labour Office*.

Jackson, E. (2005). A techno-cultural emergence perspective on the techno-change. *International Journal of Information Management*, 30(5):445-456.

Kaplan, A., M. & Haenlein, M. (2010). *Users of the world unite. The challenges and opportunities of social media*. Paris: ESCP Europe.

Kapurubandara, M. & Lawson, R. (2006). Barriers to adopting ICT and e-commerce with SMMEs in developing countries: an exploratory study in Sri Lanka. *Journal of Travel and Tourism Research*, 4(1):347-359.

Karimidizboni, R. (2013). The impact of ICT on the tourism industry in Iran. *Interdisciplinary Journal of Contemporary Research in Business*, 4(11):1.

- Katsoni, V. (2011). The role of ICTs in regional tourist development. *Regional Science Inquiry Journal*, 3(2):95-111.
- Khan, S.H., Hasan, M. & Clement, C.K. (2012). Barriers to the introduction of ICT into education in developing countries: the example of Bangladesh. *International Journal of Instruction*, 5(2):62-68.
- Kramer, R., Modsching, M., Hagen, K. & Gretzel, U. (2007). *Behavioural impacts of mobile tourist guides. Information and communication technologies in tourism 2007*. New York: Springer.
- Kramer, W.J., Jenkins, B. & Katz, R.S. (2007). Information and communication technology sector in expanding economic opportunity. Cambridge, MA: *Harvard University*.
- Kumar, R. (2005). *Research methodology: a step by step guide for beginners*. 2nd ed. London: SAGE.
- Lamsfus, C., Xiang, Z., Alzua-Sorzabal, A. & Martin, D. (2013). Conceptualising context in an intelligent mobile environment in travel and tourism. *Information and communication technologies in tourism 2007*. Berlin: Springer.
- Larvin, D. & Qiang, P. (2003). *Using ICT to meet MDGs*. New York: *Oxford University Press*.
- Law, R., Buhalis, D. & Cobanoglu, C. (2014). Progress of information communication technologies. *International Journal of Contemporary Hospitality Management*, 26(5):1.
- Lee, B.C. & Wicks, B. (2010). Podcasts for tourism marketing: university and DMO collaboration. *Journal of Hospitality, Leisure, Sports and Tourism Education*, 9(2):102-114.
- Lee, W., Xiong, L. & Hu, C. (2012). The effect of Facebook users' arousal and valence on intention to go to the festival: applying an extension of the technology acceptance model. *International Journal of Hospitality Management*, 31(3):819-827.
- Leung, D., Law, R., Hoof, H. & Buhalis, D. (2013). Social media in tourism and hospitality: a literature review. *Journal of Travel and Tourism Marketing*, 30(12):3-22.
- Lopez-Ncolas, C. & Soto-Acosta, P. (2010). Analysing ICT adoption and use effects on knowledge creation: an empirical investigation in SMEs. *International Journal of Information Management*, 30(3):521-528.
- Maedche, A. & Staab, S. (2002). *Applying semantic web technologies for tourism*. New York: Springer.
- Maedche, A. & Staab, S. (2003). *Services on the move: towards P2P enabled semantic web-services*. New York: Springer-Verlag.
- Madden, M. & Zickuhr, Ks. (2011). 65% of online adults use social networking sites. <http://pewinternet.org/reports/2011/social-networking-sites.aspx> [20 May 2015].
- Marrocu, E. & Paci, R. (2010). They arrive with new information. Tourism flows and production efficiency in the European regions. *Tourism Management*, 32(4):750-758.
- Mihajlović, I. (2012). The impact of information and communication technology (ICT) as a key factor of tourism development on the role of Croatian travel agencies. *International Journal of Business and Social Science*, 34(24):157-159, December.
- Minghetti, V. & Buhalis, D. (2010). Digital divide in tourism. *Journal of Travel Research*, 49(3):267-281.

Mills, J. & Law, R. (2004). *Handbook of consumer behaviour: tourism and the internet*. New York: Harworth Hospitality Press.

Moutinho, L. (2000). *Strategic management in tourism*. Wallingford: CABI.

Munar, A.M. (2012). Social media strategies and destination management. *Scandinavian Journal of Hospitality and Tourism*, 12(2):101-120.

O Parsons, J.J. & Oja, D. (2013). *New perspectives on computer concepts 2013: comprehensive*. New York: Cengage Learning.

O'Connor, P. (2000). *Electronic information distribution in tourism and hospitality*. Wallingford: CABI.

Ranasinghe, R. & Deysappriya, R. (2012). Analysing the significance of tourism in the Sri Lankan economy: an econometric analysis. <http://www.kln.ac.lk/fcms/ICBI2012/images/ICBM/dccs/TRM001.pdf> [20 May 2015].

Red, B. (2012). Exploring the future of media consumption. Red Media's Tomorrow Calling Programme. [http://www.redmedia.com/download\\_form?download=tv\\_search](http://www.redmedia.com/download_form?download=tv_search) [20 May 2015].

Santinha, G., Castro, E. & Sobral, N. (2010). Regional policy making in the information and knowledge society. ICT spatial impacts and its importance to spatial planning. Paper presented at the Regional Studies Association Conference Shaping EU Regional Policy: Economic, social and political pressures, Leuven, Belgium, June 8-9, 2010.

Shanker, D. (2008). ICT and tourism: challenges and opportunities, Conference on Tourism in India – Challenges Ahead, 15-17 May 2008, IIMK, India.

Sheahan, K. (2014). *What are the advantages of information technology in business?* Santa Monica: Demand Media.

Sinah, N.K. (2014). Use of ICT in tourism industry in India. *Journal of Tourism: A Contemporary Perspective*, 1(1):1.

Stamboulis, Y. & Skayannis, P. (2003). Innovation strategies and technology for experience-based tourism. *Tourism Management*, 24(1):35-43.

Tan, K.S. & Eze, U.C. (2008). An empirical study of Internet-based ICT adoption among Malaysian SMEs. Proceedings of 10th Innovation and knowledge management in business globalisation: theory and practice. Kuala Lumpur: IBIMA.

Taylor, A. (2005). ICT and the tourism information marketplace in Australia: delivering business intelligence for regional tourism. In Marshall, S., Taylor, W & Hershey, X.Y. (eds). *Encyclopaedia of developing regional communities with information communication technology*. 362 *Idea Group Reference*, London: 44-60.

United Nations World Tourism Organization. (2011). Technology in tourism. [http://dtxqt4w60xqpw.cloudfront.net/sites/all/files/pdf/unwtodigitalresources\\_volume1\\_techtourism\\_eng\\_0.pdf](http://dtxqt4w60xqpw.cloudfront.net/sites/all/files/pdf/unwtodigitalresources_volume1_techtourism_eng_0.pdf) [16 May 2015].

Van der Meer, A. & Van Winden, W. (2003). E-governance in cities: a comparison of urban information and communication technology policies. *Netherlands*: Amsterdam University of Applied Sciences.

Van Zyl, I., Inversini, A. & Rega, I. (2015). The representation of voluntourism in search engines: *the case of South Africa*. London: Routledge.

Wang, D. & Fesenmaier, D. R. (2013). Transforming the travel experience: the use of smartphones for travel. In *Information and communication technologies in tourism 2013*. Berlin and Heidelberg: Springer.

Wang, D. & Xiang, Z. (2012). *The new landscape of travel: a comprehensive analysis of smartphones for travel. Information and communication technologies in tourism 2007*. New York: Springer.

Werthner, H. & Klein, S. (1999). *Information technology and tourism – a challenging relationship*. New York: Springer.

York, J. (2013). *The social business network*. New York: Forbes Contributors.