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Information communication technologies and destination competitiveness in Zimbabwe

Dorothy M.F. Zengeni ^{1*}, Isaac Chaneta ²

Faculty of Commerce, University of Zimbabwe, Zimbabwe

Abstract

The changing in world has necessitated the embracing of information and communication technologies (ICTs). The tourism and hospitality industry has also seen this change and cannot function without powerful ICT functionalities. If the market cannot see the operator through the ICT systems cannot use that facility. ICTs have forced the business fraternity to move from vertical integration organisational structures which was structured in an hierarchical manner to a formation which is horizontal and powered by availability of internet and interconnected devices has greatly increased communication and data exchange within operations, tourism included. This research hypothesised that ICT can influence destination competitiveness and it was tested and proved positively. Challenges associated with ICT development and implementation was also discovered.

Keywords: ICT; Destination; Competitiveness; Zimbabwe

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* Corresponding author. *E-mail address:* dorothymzengeni@gmail.com

1. Introduction

Destination competitiveness is linked to the ability of a destination to deliver goods and services that perform better than other destinations on aspects of the tourism experience that are important to tourist (Dwyer 2003). Destination competitiveness is a critical determinant of how well it is performing against other destinations. Worldwide tourism is being considered as an economic backbone of many countries. In Zimbabwe tourism is among top three industries which generate foreign currency, the other two industries include manufacturing and agriculture.

2. Background information

There has been great improvement in the international tourist arrivals which grew by 3.9% from 1.189 billion in 2015 to 1.235 billion in 2016 (ZTA, 2017). The global arrival growth has been sustained since the year 2009. Arrivals into Africa also increased by 8.1% from 53.8 million in 2015 to 58.2 million in 2016 (ZTA, 2017). In the year 2016 Zimbabwe received a total of 2.167.686 tourist arrivals, 5% up from 2.056.588 received in 2015 (ZTA, 2016). From these statistics it is evident that the tourism industry both in Zimbabwe and at the international level is growing. This requires proper infrastructure to enable the smooth flow of the arrivals. Amongst the infrastructure is Information Communication Technology (ICT).

Destination competitiveness is fuelled by ICT applications. Since the realisation of independence in 1980, Zimbabwe has seen the change in the development and application of Information and Communication Technologies (ZNICT policy, 2015). The Ministry of ICT in its national ICT policy acknowledged the inadequate ICT infrastructure in the country and said this is among other issues which are impeding the sector's growth.

2.1. ICT status in Zimbabwe

The inclusiveness of ICT in all business sectors, tourism included is imbedded in the ICT infrastructural elements and effectiveness in providing the looked-for services at a cost effective manner which the industries will be able to accommodate (Buhalis, 2003). The developments which have happened in ICT fraternity in Zimbabwe are highlighted in the below (Zimbabwe ICT policy, 2015):

- 1- Liberalisation of the telecommunications, postal and courier services sector;
- 2- Establishment of regulatory bodies in the ICT sector, i.e. Postal and Telecommunications Authority of Zimbabwe (POTRAZ); Zimbabwe Media Commission (ZMC); Broadcasting Authority of Zimbabwe (BAZ);
- 3- Establishment of the Cabinet Committee on Scientific Research, Technology Development and Applications;
- 4- Computerisation of government ministries in the main centres of the country;
- 5- Creation of the Ministry responsible for ICT;

- 6- Increase in the internet penetration rate;
- 7- Enactment of the Criminal Law Amendment (Protection of Power, Communications and Water Infrastructure) Act, No. 1 of 2011 to deal with the problem of vandalism of existing power, communications and water infrastructure;
- 8- The past temporal removal of duty on ICT hardware and software.

Services which expected to be provided by a well functional ICT sector within a country included telecommunication services, postal services and courier services, broadcasting and above all internet services which act as the mainstay of the totality and the functionality of the industry. The adequacy and functionality of the ICT sector is the function of many service providers. In Zimbabwe it is the function of the Ministry of Information and Technology Development as the mother body and Postal and Telecommunication Regulatory Authority as the regulatory body. The level at which the ICT sector is at in Zimbabwe is a contribution of many factors as stipulated in the ICT policy of 2015. These factors are stated in the text box below.

2.2. Challenges faced by the ICT sector in Zimbabwe

2.2.1. Inadequate communications infrastructure

The development of ICT infrastructure remains as a big challenge in most countries (Weidenfeld, 2018; Scheyvens, 2017). In Zimbabwe, efforts were made to improve the ICT infrastructure through the adoption of the second generation (2G) applications which in 2014 were recorded to have exceeded 75% (Zim ICT policy, 2015). Considering that most tourism activities in Zimbabwe is concentrated in remote area, mostly in rural areas, the broadband coverage in these areas still remains very low. This means that tourist destinations which are in remote areas are not adequately covered compared to urban and well developed destinations (destinations like Nyanga, Chimanimani and Mutoko).

2.2.2. Inadequate Commercial Electricity

The ICT applications depend on electricity for its functionality. In Zimbabwe the commercial electricity is distributed through the national grid and does not cover the whole country. According to available literature as published in the Herald of 28 March 2018, the country is currently operation at 1200 Megawatts against the 1600 which is required for the country to fully function. Though the balance is said to be imported from Mozambique and South Africa, it still remains as a challenge to the country. In March 2018 the country added 300 megawatts to its national power grid (Herald 28 March 2018). The affected tourism operators where the national grid does not cover are depending on alternative power sources which included solar systems and generator systems. Though these systems are the most recommended but they are very expensive on the installation stage. The operators who are on the national grip are also experiencing erratic supplies leaving them without any option but to also have a backup plan in the form of solar systems and generators.

2.2.3. Inadequate ICT skills

The application and operation of ICT procedures requires specific skills and capabilities from both the employer and the employee (Pechlaner, 2003). In a research which was carried out in the country by The Ministry of Information and Technologies in 2015 reviewed that there is inadequacy amongst the Zimbabweans in terms of usage of Information Communication Technologies (Zim ICT policy, 2015) resulting in the country not benefiting fully from ICT usage.

2.2.4. Fragmented institutional arrangements

As once highlighted in the preceding discussion that the embracement of ICT requires a holistic approach, the fragmented institutional arrangements within the country has resulted in a less effective approach to the implementation of ICT in most organisation (Zim ICT policy, 2015). Developers have earmarked ICT development as central to tourism development and management (ResearchICTAfrica.net, 2017). The distortion which is occurring in governing ministries which is not supportive to another ministry is resulting in slow adoption and development of ICT in many industries, tourism included, for example the Ministry of Transport and Infrastructural Development must work together with the ministry of ICT to build supporting infrastructure for network development within the country.

2.2.5. Inadequate investment capital

The investment in ICT infrastructure development has always resulted in positive results on growth (Bankole, 2017). It has been viewed as the driver to economic growth through industry and commerce. The initial investment for ICT development is very huge resulting in many countries failing to committee resources to its fruition. The current status of the economic growth in Zimbabwe is resulting in foreign borrowing to be very expensive due to the high perceived country risk. This is resulting in many promising investors losing interest to come and invest in the country. A high risk country is perceived by most investors as a dangerous ground to play in because the returns on investment will be very marginal this is because of the high interest rates which will be charged in borrowing development capital.

2.2.6. Absence of Cyber security Framework

It has taken Zimbabwe 12 years to come up with the Cyber Security Bill (Herald, 2018). This means that the country has been operating without a cyber-security framework. Cyber security is explained as a practice which ensures the integrity, confidentiality and availability of information as when it is required (Porud, 2017). The country lacks the basic preventative techniques used to protect the integrity of network, program and data from attack, damages and unauthorised access (Minister Chinamasa, 2017). This implies that as a country we are open to cyber-attacks and the use of ICT platforms in operations is not safe.

3. Information communication technology (ICT) and destination competitiveness

Destinations all around the world compete with each other for attracting more tourists. Technological advancement can be a strategic tool in this approach. Tourist needs and wants are changing at an alarming rate and technology can be of use to support these changes. The advancement of technology will enable operators to deliver personalised and unique customer needs. Previously, travellers used to receive information about destination through books, brochures, promotional videos, word of mouth, travel agents or tourist offices. Radical changes have happened in the marketing, requiring destination managers to move swiftly and adopt technology. The use of ICT effectively within destination results in a competitive destination, which can offer tourism service at a competitive advantage compared to its competitors (Dwyer, 2016). Technology may be a powerful tool for eliminating possible inefficiencies of a destination.

3.1. The role of ICT in destination competitiveness

The major component which facilitates the embracement of ICT at a destination is internet connectivity. According to Kim (2004), internet changes many factors in marketing. The internet is changing the industry structure by altering so many things including minimised switching cost because of more information at the disposal of the guest, pricing transparency, revolutionising distribution channels and minimising barriers to entry by other players. The internet has also improved the packaging of the tourism product by the producers. Individualised packaging system has been enabled by the evolution of the internet. For destinations to stay competitive there is now need for developing an infrastructure to manage the online information and deliver to consumers what they want.

3.2. Application for Tourism Destination Competitiveness

They are international ICT applications which some destination are using to enhance their competitiveness and these are:

- Tourism harmonised network: this application enables each operator to maintain his/her own system and design, but allow the end customer to see the information required in a better structured form;
- Destination management system;
- Destination integrated computerised information reservation management systems (DICIRMSs): this application enables and empowers local coordination of tourism products;
- Recommended systems: they do data mining from various travel agents and enable customers to know where to go and what to do; and
- Destination finders: it is mostly used in European countries. It also does data mining and aggregate, make detailed information available through a simple preference-based search interface (Buhalis, 2007).

3.3. Conceptual framework of ICT to destination competitiveness

ICT is very critical in a destination. It facilitates easy and quick transactions during operations. Aspects which are enabled ICT within a destination include:

- ICT use for Business-to-business transaction;
- ICT use for Business-to-customer transaction;
- Individual use of the internet;
- Telephone lines available;
- Broadband internet subscribers;
- Mobile telephone subscribers;
- Network availability;
- ATM accepting visa cards; and
- Banking facilities available

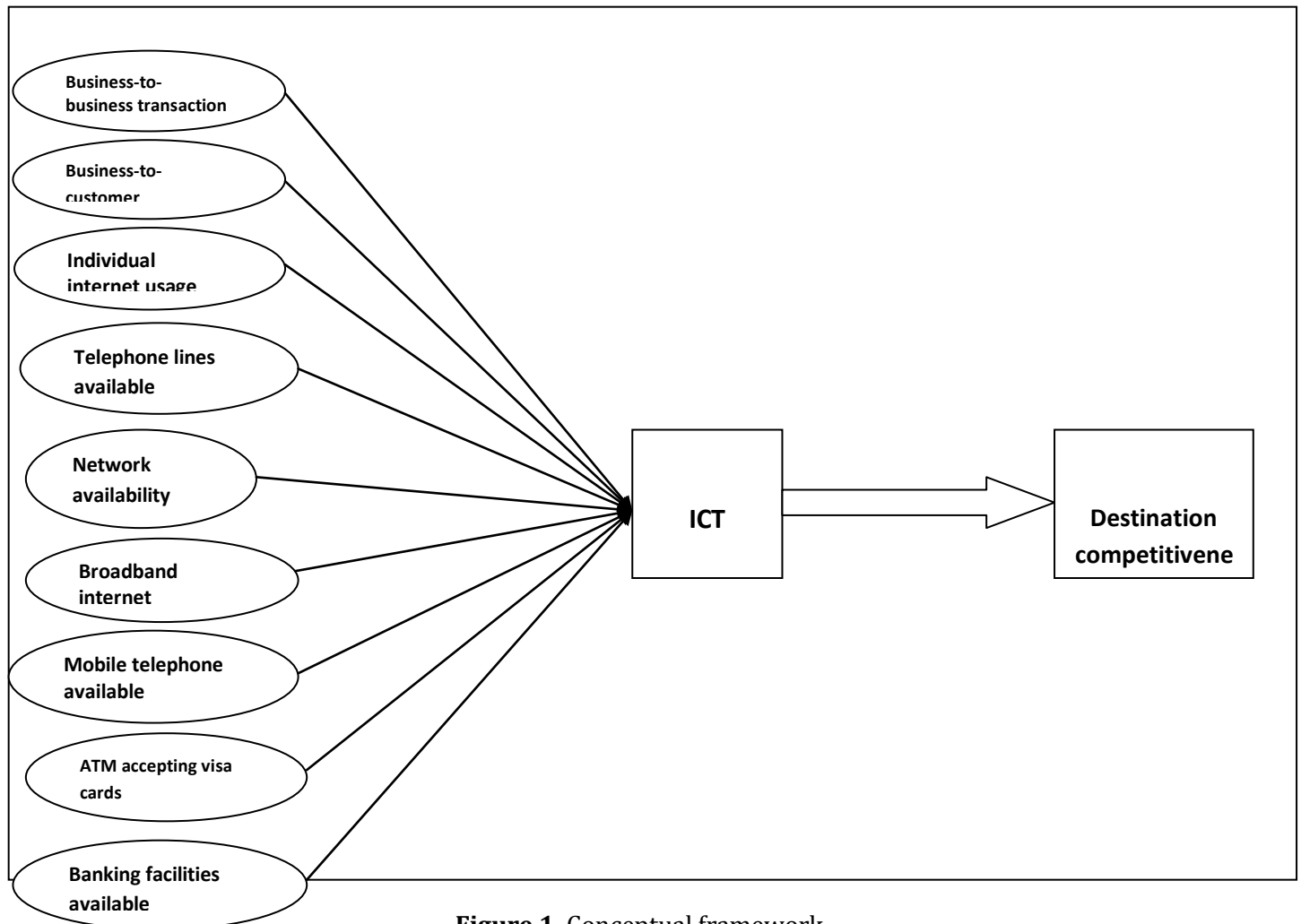


Figure 1. Conceptual framework

4. ICT and consumer usage

ICT create conducive platforms which enables travellers to access travelling services and information easily, without any inconveniences and at a time effect manner (Arellano 2017). It has a strong potential to transform travelling experience in several ways including streamlining product consumption process (Snepenger, 1990). The concept of quality implementation and management in service delivery is enabled by ICT application (O'Connor, 1999). ICT also plays the role of a middleman, where it enables the consumption of the product linking the service provider and the guest. The uniqueness of travellers acts as a challenge to the service providers, where the delivery process can be hindered by travellers' experience and motivational concepts and desires (Iunius et al., 2015). The change from mass travelling to individualised traveller has resulted into a sophisticated tourist who requires a more tailor made product, produced specifically for themselves. ICT has also resulted in the international traveller to access the product more easily without any difficulties. These travellers are technologically advanced, and they can explore the ICT platforms without any difficulties.

The 'new' traveller has been empowered to make decisions through the development of ICT. The traveller has become more knowledgeable and can now manage to seek value for money and time through the comparisons which they can now make at the comfort of their homes (Molina et al., 2004). The ICT environment has resulted in a traveller who is now able to pursue his/her own preference and schedules rather than using the concept of packaged tours which are more rigid and have more people in a group. This has resulted in the packaged tour market losing market share in favour of individualised tours. These independently organised tours are facilitating the emergence of dynamic packed tours which are tailor made towards satisfying the needs of an individual consumer/traveller against mass travellers (Fur eta al 1998).

The delays which used to be caused by lack of ICT applications are now thinks of the past as travellers are no-longer willing to wait for a service resulting in the disappearing of patience in service delivery process. Successful organisations are managing service delivery by using ICT applications to understand travellers' needs and wants and reaching them more efficiently with relevant products which can satisfy and delight the traveller (Anderson et al., 2003). The interaction between clients and service providers is emerging as a success factor for today's client, resulting in the need by service providers to acquire the interactions software which comes through the internet (Omotunde, 2017).

The behaviour of travellers within in the tourism industry has changed drastically due to the availability of internet. (Mill and Law, 2004). The vast amount of information which operators both public and private are availing to the traveller is resulting in the tourist to have rich and up-to-date information which is resulting in them managing to make informed decision. The availability of ICT applications within these destinations has streamlined the whole value chain from information search to consumption within the destination and even proceeding to post purchase evaluation of the consumption process (Otaghsara et al., 2012). Destinations now have feedback platforms which are facilitated by ICT applications, for example trip Advisers and destination management platforms. Buhalis (1998) stated that potential tourists have become more independent and sophisticated on using a wide range of tools to arrange for their trips. These include reservation systems and online travel agencies (such as Expedia), search engines and meta-search engines

(such as Google and Kayak respectively), destination management systems (such as visitbritain.com), social networking and web 2.0 portals (such as wayn and tripadvisor), price comparison sites (such as kelkoo) as well as individual suppliers and intermediaries sites.

Various processes are being necessitated by the embracing of ICT tools in organisational operations, these include searching for travelling information, make airline booking, online room reservation and other online purchases which more convenient for the traveller (Morrison et al., 2001). The emergence and popularity of Internet applications, has resulted in most tourism organizations such as hotels, airlines, and travel agencies to embrace Internet technologies as part of their marketing and communication strategies (Pechlaner, 2003).

During a purchase decision process consumers go through purchase stages which start from need/problem recognition, information search, evaluation of alternatives, purchase decision and post purchase process (Kotler, 2017). ICTs enable the consumer to be able to search rich and appropriate information which can enable the traveller to be able to make informed decisions in line with a product which can satisfy the need recognised. A service is said to be characterised by unforeseen risks which can only be reduced by embracing ICTs and in that improve the quality of the total service to be consumed (Fodness and Murray, 1997). A traveller who is well informed is very easy to serve and it will result in a more enhanced service experience and customer satisfaction.

The emergence of internet has influenced travelling propensity, resulting in the changing behaviour of the travellers (Martins, 2015). The operators are realising a more spending tourist, which is emanating from searching information on the internet (Martins, 2017). They spend more due to the fact that they would have researched more on what they want to do in the destination and knowing the cost associated with the various products offered within the destination. (Susskind, 1998; Luo et al., 2004). The role of intermediaries is being challenged by the use of ICTs, due to the fact that consumers/travellers are now able to engage directly with the suppliers of tourism products resulting into a more personalised service (Buhalis, 1995). The principal time which used to be taken to deliver a service has greatly been reduced, this has resulted into a more happier client who can turn into a loyal customer for the organisation.

The medium to small enterprises are finding it as an advantage to embrace ICTs, because travellers can now review the products online compared to the period when travellers were only aware of big brands in the market. Online information availability has proved to be a powerful tool for success for most organisations (Bystrowska, 2017; Buhalis, 2003). ICT platforms is also enabling consumers/travellers to give constructive feedback to the service providers which was not the case before the rise of ICTs, due to the fact that it's more easy and convenient for the traveller to air out their complaints and compliments to the service providers (Furr, 1998). To necessitate the process of feedback platforms organisation through ICTs has embraced software in their organisations which enables effective handling of the feedback. Organisations are now subscribing to various destination management systems which include TripAdvisor and Expedia (Scheyvens, 2017).

5. Empirical evidence to ICT and destination competitiveness

Data was corrected from two premium destinations in Zimbabwe that is Nyanga and Victoria Falls, to assess the implications of ICTs as tourism infrastructure to destination competitiveness. The study reviewed that ICT has got a bearing to destination competitiveness.

Although tourism destination competitiveness has been a function of many factors, the influence of information and communications technology (ICT) on the destination competitiveness has not been given special attention (Petrovi, 2017; Iunius, 2015). Constructs which were used to assess the influence of ICT to destination competitiveness included:

- ICT use for Business-to-business transaction
- ICT use for Business-to-customer transaction
- Individual use of the internet
- Telephone lines available
- Broadband internet subscribers
- Mobile telephone subscribers
- Network availability
- ATM accepting visa cards
- Banking facilities available

From the analysis below, it is worth noting that there were divergences with respect to the actual factors influencing the competitiveness of a destination. From the research which was carried out in Victoria Falls and Nyanga Zimbabwe from an ICT standpoint, determinants whose regression coefficient was significant at the 95% confidence level for Victoria Falls were:

- ICT use for business to business
- individual use of internet
- network availability
- banking facilities available
- destination finders
- recommendation systems
- destination management systems

Only two constructs were not statistically significant, and these were ICT use for business to customer transactions as well as broadband internet subscribers as shown in Table 1.

Table 1. Regression Coefficients – ICT

Tourist Site	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Victoria Falls	1 (Constant)	1.312	.273		4.801	.000
	ICT use for business to business	.136	.048	.132	2.833	.005
	ICT use for business to customer transaction	.052	.062	.047	.837	.403
	Individual use of internet	.260	.067	.253	3.871	.000
	Broadband internet subscribers	.105	.058	.120	1.789	.074
	Network availability	.333	.054	.318	6.132	.000
	Banking facilities available	.199	.052	.210	3.839	.000
	Destination finders	.239	.063	.219	3.773	.000
	Recommendation systems	.198	.063	.161	3.120	.002
	Destination management systems	.378	.061	.346	6.205	.000
Nyanga	1 (Constant)	.117	.308		.380	.705
	ICT use for business to business	.002	.103	.002	.020	.984
	ICT use for business to customer transaction	.265	.103	.260	2.569	.012
	Individual use of internet	.586	.093	.513	6.289	.000
	Broadband internet subscribers	.042	.094	.045	.452	.653
	Network availability	.592	.119	.647	4.972	.000
	Banking facilities available	.371	.090	.433	4.124	.000
	Destination finders	.042	.076	.042	.556	.579
	Recommendation systems	.121	.089	.136	1.358	.178
	Destination management systems	.021	.084	.024	.251	.803

a. Dependent Variable: Destination Competitiveness

On the other hand, Nyanga had a few ICT items that were significant and these were:

- ICT use for business to customer transactions;
- individual use of internet;
- network availability; and
- banking facilities available.

The other factors that were not significant included ICT use for business to business, broadband internet subscribers, destination finders, recommendation systems as well as destination management systems. Comparing the two, with respect to Victoria Falls, the most distinctive ICT items with the greatest beta coefficients were network availability and destination management systems, while for Nyanga, this was individual use of internet, network availability, as well as the availability of banking facilities.

The influence of ICT to destination competitiveness was put to comparative analysis with accommodation and transport during the study and it was discovered that accommodation and transport as tourism infrastructure had greatest weight which had a coefficient of 0.13, whilst ICT had the least coefficient of 0.04. This is shown in Figure 2.

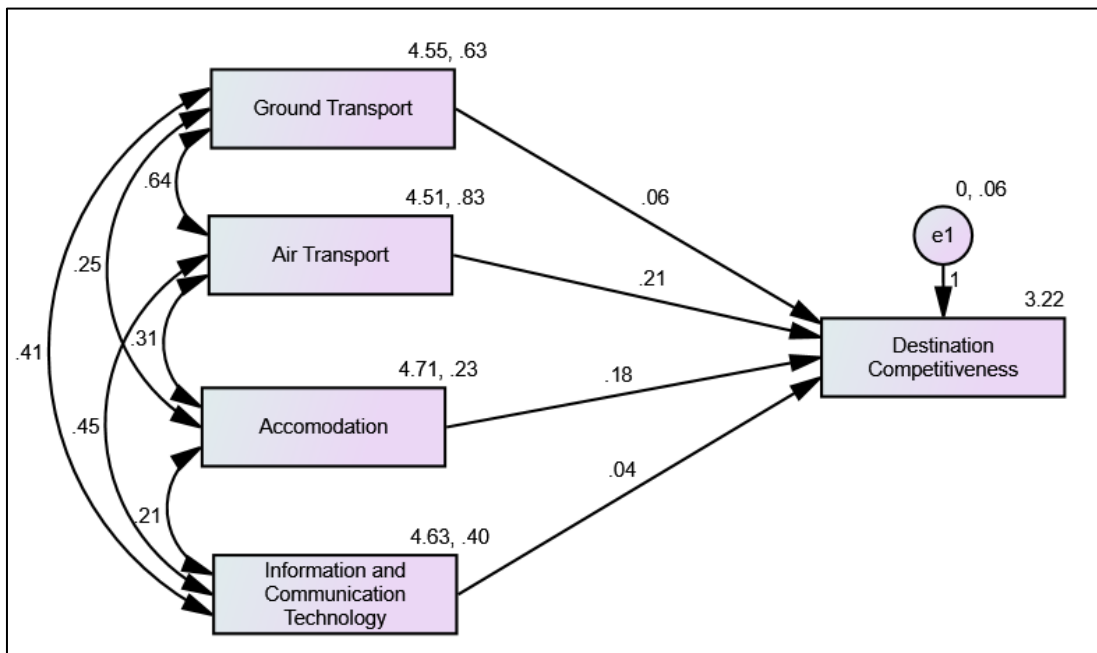


Figure 2. Comparative analysis of ICT against Accommodation and Transport

In the study ICT was confirmed as being a significant factor in destination competitiveness This is not surprising considering the fact that the role of technology in the tourism sector has long since been acknowledged, with earlier scholars such as Olsen and Connolly(2000), confirming the significant role. The other scholars who have as well validated the significance of technology include, among other scholars, Magnini et al. (2003) and Su (2011).

One of the principal applications of ICT in tourism is the benefit that it provides toward the ease of accessibility of information regarding the tourism destination. Effectively, this facilitates the attraction of tourists from across the world (Dey and Sarma, 2010). Further, these technologies are now being applied in recommendation systems, as well as destination management systems (Walker, 2011). Facilitating the reviews of the destinations eventually works in favour of the destination,

The application of TripAdvisor as Destination Management System, which facilitates the provision of real-time information regarding the destination, along with additional information regarding the booking availability, among other things. As observed earlier, it is through these ICT tools that a destination can get to be appreciated better by tourists across the world. Beyond being a DMS, TripAdvisor can be used as a destination finder as well as a recommendation system. While most of the destinations in Zimbabwe are now integrated with similar systems, further prioritization is still very important in terms of staff training and development as put forth by Omotunde (2017) and Otaghsara (2012).

6. Conclusion

Two prime destinations were used in this study to make a comparison on the effectiveness of ITC in making a destination competitive against the other. In the comparison constructs were to used assess the effect, and these included ICT use for business-to-business transaction, ICT use for business-to-customer transaction, and individual use of the internet, telephone lines available, broadband internet subscribers, mobile telephone subscribers, and network availability, ATM accepting visa cards; and banking facilities available. All the constructs seems to be varied though differs from one destination to another with Victoria Falls having more aspects which relies on ICTs compared to Nyanga.

Destinations compete with each other just like products in a supermarket (Walker, 2011). ICTs have been concluded to have an effect to destination competitiveness. The study reviewed advantages to ICT usage within destinations which included customer profiling, information provision during information search, electronic transactions and internet accessibility. In Zimbabwe the usage of ICT is still lagging behind compared to other countries due to ICT infrastructure deficiencies. The future business is going to be all electronic, destinations need to embrace ICT to remain competitive. The performance of destinations has a correlation to ICT usage and management. Literature has reviewed that the usage of ICT is now across all operators, no matter small, medium or large organisation, all has seen the advantages to using ICT in business operations. Travellers are now managing to do destination search through ICT. They are now getting rich and relevant information on different destinations and what they offer through the ICT applications. Literature has also reviewed that travellers who search information prior to travelling spend more in the destination against those travellers who would have got travelling information from intermediaries, this is resulting in intermediaries losing business for direct engagement which is now occurring between the client and the service provider. Major challenges which countries including Zimbabwe are facing in their quest to embrace ICTs include financing, lack of investment policy, fragmentation in

institution, lack of skills amongst the workers to implement and use ICTs, inadequate supporting infrastructure, inadequate commercial electricity and absence of cyber security policy.

References

- Anderson, R.E., Srinivasan, S.S. (2003), "E-satisfaction and e-loyalty", *A journal for contingency framework. Psychology and Marketing*, Vol. 20 No. 2, pp. 123–138.
- Arellano, M., Blundell, R. And Bonhomme, S. (2017), Earnings and consumption dynamics: A nonlinear panel data framework, *Journal of the econometric society*, Vol. 85 No. 3, pp 693-734.
- Bankole, F.O. (2017), "Influence on cell Phone Banking adoption in South Africa: An Updated perspective, *Journal of internet banking and commerce*, Vol. 22 No.3, pp 1-16.
- Buhalis, D. (1995), *The impact of information telecommunication technologies on tourism distribution channels: implications for the small and medium sized tourism enterprises*, Strategic management and marketing, Guildford: University of Surrey Ph.D. Thesis, Department of Management Studies,
- Buhalis, D. (1998), *Strategic use of information technologies in the tourism industry*, 35 Marylebone Road London, NW1 5LS, England.
- Buhalis, D. (2003), "E-Tourism: Information Technologies for Strategic Tourism Management", *Journal of Tourism management*, Vol. 23 No.3, pp. 207-220.
- Buhalis, D., & Zoge, M. (2007), "The Strategic Impact of the Internet on the Tourism Industry", in Sigala, M., Mich, L., Murphy, J. (Eds.), *Information and Communication Technologies in Tourism*, Springer-Verlag, Wien, pp. 481-492.
- Bystrowska, M., Wigger, K. and Liggett, D. (2017), "The use of information and communication technologies (ICT) in managing high Arctic Tourist Sites: A Collective Action Perspective",
- Dey, B., Sarma, M.K.(2010), "Information source usage among motive-based segments of travelers to newly emerging tourist destinations", *Journal for Tourism Management*, Vol. 31 No. 3, pp. 341–344.
- Dwyer, L. and Kim, C. (2003), "Destination competitiveness: Determinants and indicators", *Current issues in Tourism*, Vol. 6, No. 5, Page 369-414.
- Dwyer, L. and Kim, C. (2016). Destination competitiveness: Determinants and Indicators. *Current Issues in Tourism*. Vol.6 No 5.
- Fodness, D., Murray, B. (1997), "Tourist information search", *Annals of Tourism Research*, Vol. 24 No. 3.
- Furr, H.L., Bonn, M.A. (1998), "The Internet and the hospitality marketing professional", *Journal of Applied Hospitality Management*, Vol. 1 pp. 60-69.
- Iunius, R, F. Cismaru L. and Foris D. (2015), *Raising Competitiveness for Tourist Destinations through Information Technologies within the Newest Tourism Action Framework*, Proposed by the European Commission. Faculty of Food and Tourism, Transilvania University

- Kim, W.G., Lee, H.Y. (2004), "Comparison of Web Service Quality between Online Travel Agencies and Online Travel Suppliers", *Journal of Travel & Tourism Marketing*, Vol. 17 No. 2/3, pp. 105-116.
- Kotler, P., Armstrong, (2015), "*Principles of Marketing*", By Pearson education, Inc, published as Prentice Hall, One lake street upper saddle river New Jersey.
- Luo, M., Feng, R., & Cai, L. A. (2004), "Information search behavior and tourist characteristics", *Journal of Travel & Tourism Marketing*, Vol. 17 No. 2/3, pp. 15-25.
- Magnini, V. P., E. D. Honeycutt, Jr., et al. (2003), "Data Mining for Hotel Firms: Uses and Limitations", *Quarterly Journal at Cornell Hotel and Restaurant Administration*, Vol. 44 No. 2, pp. 94-105
- Martins, C., Salazar, A., And Inversini A. (2017), *The internet impact on travel purchase: insights from Portugal. School of tourism*, Bournemouth University, Bournemouth, Poole, UK.
- Mills, J. & Law, R. (2004). *Handbook of Consumer Behaviour, Tourism and the Internet*. New York:Harworth Hospitality Press.
- Molina¹, A., Gómez, M., and Martín, D., (2004), "Tourism marketing information and destination image management", *African Journal of Business Management*, Vol. 4 No.5, pp. 722-728.
- Morrison, A.M., Jing, S., O'Leary, J. T., and Lipping, A.C. (2001), "Predicting Usage of the Internet for travel bookings: an exploratory study", *Journal for Information Technology & Tourism*, Vol. 4 No. 1, pp. 15-30.
- O'Connell, B. (1999), *Australian Banking on the Internet- Fact or Fiction?* The Australian Banker, pp 212-214.
- Olsen, D.M, Connolly, D.J. (2000), "How Technology Is Changing the Hospitality Industry", *Journal for School of Hospitality Business at Michigan State University*, Vol. 41 No1, pp. 30-40.
- Omotunde, O. (2017), "Information Communication Technology Training Needs of Academic Staff in Universities in Ekiti State Nigeria", *Journal at the University of Nebraska*, Vol. 22 No 2, pp. 88-100.
- Otaghsara, M.K., Mohseni, A. and Khalili, M. (2012), "The role of ICT in-service training of employees of government Organization (Case Study: Institute of Water and Power Unit, Mazandaran)", *Procedia Journal - Social and Behavioral Sciences Elsevier.*, Vol.47 No. 2, pp. 152-170
- Pechlaner, H., Tallinucci, V., Abfalter, D., and Rienzner, H. (2003), "Networking for Small Island Destinations – The Case of Elba", *Journal for Information and Communication Technologies in Tourism*, Vol 20 No. 3, pp. 105-114.
- Petrovi, M.D., Vasiljevi, Dj.A., Vujii, M. D., Hose, T. A., Markovi, S.B. and Luki, T. (2013), "Global geopark and candidate – comparative analysis of Papuk Mountain geopark (Croatia) and Fruška Gora Mountain (Serbia) by using GAM model", *Carpathian Journal of Earth and Environmental Sciences*, Vol. 8 No. 1, pp. 105-116.
- Porud, J.M., (2017) What is cyber security? How to build a cyber-security system. Century Link. Accessed 01 May 2018.
- ResearchICTafrica.net (2017), *Modernizing the public sector through Cloud, South Africa*. A Report commissioned by the Microsoft Foundation.

Scheyvens, R. (2017) "Inclusive Tourism Development. Tourism Geographies", *An international Journal of Tourism Space, Place and Environment*, Vol. 15 No. 4 pp. 180-190

Snepenger, D., Meged, K., Snelling, M., and Worrall, K. (1990), "Information search strategies by destination-nave tourists", *Journal of Travel Research*, Vol. 29 No.1, pp. 13-16.

Su, Y-L., Reeve, J. (2011). A Meta-analysis of the Effectiveness of Intervention Programs Designed to Support Autonomy. Department of Psychological and Quantitative Foundations, University of Iowa, 361 Lindquist Center, Iowa City, IA 52242, USA. *Educational Psychology Review* Vol. 23, Issue 1, Page:159-188

Susskind, A.M., Bonn, M.A. (2003), "To Look or Book: An Examination of Consumers' Apprehensiveness toward Internet Use", *Journal of Travel Research*, Vol. 41 pp. 256-264.

The Herald (2018) Electricity supply in Zimbabwe, 28 March 2018.

The Herald (2018), Minister of Cyber security (Honorable Chamisa) Respond to cyber security bill, 12 October 2018.

The Herald (2018), Zimbabwe lacks o cyber security, 12 October 2018

Walker, J.R., Walker, J.T. (2011), *Tourism Concepts and Practices*, Dorling Kindersley (India) Pvt, Ltd.

Weidenfeld, A. (2018), Tourism diversification and its implication for smart specislisation. School of Marketing Management, Faculty of business and Law, Coventry University, Coventry CVI 5FB, UK

www.techzim.co.zw/2017/10/role-of-cyber-security-minister-chinamasa) Accessed 01 May 2018.

Zimbabwe National Information Communication Technology policy (2015), Harare Zimbabwe publications,

Zimbabwe Tourism Authority (2016), Tourism Trends and statistics and Report, Harare Zimbabwe.

Zimbabwe Tourism Authority (2017), Tourism Trends and statistics and Report, Harare Zimbabwe.