

Use of the internet for enhancing tourism and hospitality higher education in Southern Africa: implications for e-learning

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1. Introduction

The consideration of the Internet in tourism promotion and development and its impact on strategically managing tourism destinations has only recently emerged as a serious area of research (Visser, 2004). The European Commission, Enterprise Directorate General, has published the e-Business W@tch, which monitors the growing maturity of electronic business across 10 sectors of the European Union (EU) economy. The e-Business W@tch 2004 results show that with about 8 million people employed, the tourism sector is one of the faster growing sectors in the European economy. The tourism sector has been the forerunner in using Information and Communication Technology (ICT) networks, and e-commerce is exerting a huge impact on the sector. European enterprises in consumer-orientated service sectors, such as the tourism sector, are focusing more on customer facing e-business functions. The tourism sector is indicated as one of the leading sectors in marketing and selling online (sell-side e-commerce) and is therefore considered to use ICT, the Internet in particular, for very specific purposes. The tourism sector is indicated as the one sector that has experienced the strongest impact of the Internet. Tourism suppliers have been exploring new ways to expand their channels of distribution to reach target travellers in more efficient and effective ways (European Commission, 2004). These findings have direct implication for managing tourism e-business in the SADC region, a long haul destination, which traditionally sources a major part of its international (ex-Africa) tourism business from the EU. Studies such as those by Warden & Williams (2003), Ankar & Walden (2001), Collins et al (2003), Gullede (2000), Buhalis & Main (1998), Lubbe (2002), Alford (1999), Connolly, Olsen & Moore (1998), Blackburn & Athayde (2000), and, Grattan, Brown & Horgan (1998), amongst others, indicate that the use of ICT in the tourism and hospitality industry is increasing; and, for sustainability in this sector, there will need to be an increasing demand for staff who are competent in adapting, implementing and managing ICT as part of their

normal business activities. Visser (2004), Byron & Gagliardi (2005) and Katz (1998) however emphasize that notwithstanding significant interest in these research developments, developing economies have been largely excluded from such research. It is noted with concern that there is a digital divide between the industrial countries of the North and the developing economies of the South. In particular, Africa is perceived to be the most vulnerable to such digital marginalisation.

1.1 E-learning (electronic learning or on-line learning) in developing economies

Higher education – locally, regionally and globally – is undisputedly both in transition and under pressure. Czerniewicz et al (2006) indicate that there has been an increased interest in technology in many higher education institutions, particularly in South Africa, since 2000. The most common reason being that universities are refocusing their positions in the global economies and in the redefined local landscapes. There is consensus that universities need to play a meaningful role towards the development of knowledge societies with such societies requiring a support infrastructure in the form of people with knowledge, skills and abilities to deliver e-commerce. It further requires the reformulation of the nature of learning and what is required of a graduate.

Training of the tourism and hospitality labour force is a key component of some of the Governments' (for example, South African) competitiveness policies and is reflected in initiatives to improve national productivity. Much of the Africa remains under-developed and poverty stricken where famine and civil war make universal basic education an unfulfilled dream. In such conditions e-learning needs to find a place, according to Lelliott, Pendlebury & Enslin (2002). Patterns of exclusion and inclusion, empowerment and disempowerment have differentiated the developing countries from their developed counterparts say Lelliott et al (2002) and, in the patterns of educational provision and styles of teaching and learning. Article 6 of the SADC Protocol on Tourism (1998) underscores the SADC endeavour to evolve a common education policy with regard to tourism to coordinate and harmonize training at tourism educational institutions, and to ensure that tourism training standards are harmonized in different parts of the SADC region to complement one another.

The prevailing, although debated, view is that Africa, along with the rest of the developing world, needs wider access to the Internet if it is to compete in the global economy. In places where books and qualified teachers are scarce, the Internet may have the capacity to provide learning resources where there were none and provide access to high quality educational programmes. Tertiary institutions throughout SADC compete with each other through technology, seeking to attract distant new markets. This results in the need to adapt innovative, cheaper approaches to provide education for growing numbers of learners. Byron & Gagliardi (2005) provide a further insight as to why the Internet has, yet, not been fully exploited for its developmental value in a number of developing economies:

- Cost factors: the Internet is considered to be a very expensive resource, even in developed economies; maintenance costs, due to the rapid evolution of ICT requires constant upgrading of equipment and facilities; the cost of on-line charges for the use of the Internet is high unless it is subsidized by Governments or private institutions; and, the wide disparities between rural and urban areas in regard to basic telephone infrastructure and the quality thereof.

- Professional Competence: educating the educators is considered the most important factor in ensuring the successful use of the Internet in higher education as in many instances this factor is overlooked or underestimated in the development initiatives for introducing the Internet with the result that such projects fail or are never developed to their full potential. Training is costly but also requires being on-going and regularly updated to meet the ever new demands posed by evolving ICT technologies.

- Educator attitudes: Educators seem to resist the introduction of e-learning for a number of reasons, including their unfamiliarity with the technologies, the additional time and effort necessary for their effective use and the possible notion that e-learning pose a threat to their professional role and image

- Language and cultural issues: it is claimed that the “almost complete dominance of English over other languages in the computer field” is one of the principal obstacles to the widespread use of computer technologies in education in developing economies, in particular. This linguistic and cultural dominance continues to be a serious barrier for non-English speaking countries wishing to integrate e-learning into their tourism curricula. Some governments may even oppose the use of e-learning in the formal education system for fear of its potential for “cultural colonization”.

- Lack of technical expertise: developing economies, in general, lack technical expertise in this domain at all levels. The limited resources of such economies usually imply that they have neither the local capacity to develop the necessary human resources in this field nor the means to attract highly skilled and expensive experts from abroad. Many developing countries, such as South Africa, which succeed in training personnel, lose them to more highly paid employers abroad.

- Lack of information: In the case of developing countries there is a lack of two categories of information to educational decision-makers and practitioners - information about the role and value of e-learning in higher education, and, more specific information relating to available hardware and software and how to use it in curricula.

- Lack of centralized, coordinated administration: the success introduction of e-learning in higher education is dependent on the support of education authorities not merely at the national level but also in terms of local administration.

It is however noted by Czerniewicz et al (2006) that in South Africa some universities have had e-learning strategies in place as long ago as the late 1990s. Such strategies were part of institution-wide initiatives at the universities of Stellenbosch and Pretoria. For most other South African institutions, policies and strategies have only been put in place in the last few years, but, with some institutions having no evidence of any e-learning policies being in place at all. Czerniewicz et al (2006) found that in the case of South African universities the key drivers for an increasing interest in e-learning was: individual academic staff (in the form of champions), senior leadership (either formally or informally), and students.

1.2 E-learning and tourism and hospitality higher education

Developments in ICT, particularly the popularity of the Internet, have forced organisations in the tourism and hospitality industry to appraise their use of technology in managing their business (Namaivayam, Enz & Siguaw, 2000). The digital revolution has emphasized innovation, new business models, new ways of organising work as well as learning (Collins, Buhalis & Peters, 2003). Consequently, the use of the Internet in tourism and hospitality education can help SADC educators meet the challenges of globalization by establishing

international linkages, information and knowledge transfer and improving delivery and the quality of material received by learners. This is crucial for institutions in economically depressed regions that wish to contribute to the economic upliftment of such areas by distributing up-to-date information and offering quality tourism and hospitality instructional programmes.

E-learning is the learning that occurs any time someone uses electronic means for learning with or without another live person being present in the same venue (Collins et al, 2003). Consequently, it is believed to contribute towards improved productivity for commerce and industry, as industry then "inherits" a technologised workforce. It is crucial for tourism and hospitality students, soon to enter the global marketplace, to be exposed to the on-line information resources and the managerial and technological uses of the Web in context of e-business (Sigala et al, 2002). However despite the perceived benefits of e-learning, some industry experts and e-learning providers, according to Collins et al (2003), do not see it as viable for all the necessary skills in industry or as replacement for traditional training. They suggest that on-the-job and face-to-face training are important in teaching non-technical or "soft" skills such as communication or leadership skills, where e-learning is not appropriate. The mission of tourism and hospitality management programmes is ultimately to prepare students for the work-place and to produce industry leaders who are motivated, service oriented and quick-thinking, with a multi-skills base that allows them to be creative, flexible and adaptable (Sigala et al, 2002). Social, multicultural and communication skills acquisition is crucial. In particular, Sigala (2002a) stresses that e-learning helps learners to acclimatize to the technological changes that are taking place in the tourism environment, and allows them to experience multicultural diversity and teamwork by interacting with people of different social and cultural backgrounds via the Internet. E-learning creates a learning environment that overcomes time and space barriers, offering learners greater opportunity to become familiar with the specific conditions of work in tourism and hospitality. As an increasing number of tourism and hospitality learners simultaneously seek part-time employment, e-learning thus offers flexibility in terms of time and place and delivery of instruction (Sigala, 2002a).

2. The study

This study was exploratory in that no such studies seem to have been conducted in SADC. SADC is a regional body comprising of 14 member states which agree on areas and institutional mechanisms for such cooperation and integration. It has committed itself to evolving clearly defined policies and strategies for developing and promoting tourism region-wide (SADC, 1998). Our study revealed the lack of a comprehensive database or statistics regarding educators within the SADC region who are involved in delivering tertiary level tourism and hospitality education and we found that most SADC member states, apart from South Africa, have limited tertiary education in this field. According to Doswell (2000), educational institutions are often operated by different government agencies sometimes Ministries of Labour, sometimes Ministries of Education, and sometimes Ministries of Tourism either working alone or in collaboration, and "fighting for territory" between some or all the parties seems commonplace.

The parameters of the sampling frame were the e-mail contact details of the members of the Tourism Educators of South Africa (TESA), the South African Association of Hotel School

(SAAHS), and the contact details of other educators were compiled through systematic Internet searches, and telephonic enquiries where the web sites of institutions provided inadequate information. This procedure resulted in the compilation of an initial contact list of about 120 tertiary level educators in tourism and hospitality within SADC, the so-called "initial contact group". For the purpose of this study SADC "tertiary level" education was defined as education offered at post-school education level (but excluding Further Education & Training (FET), technical or community college providers) within both the public and private sectors, in SADC states.

Communication was established with this initial contact group with a purpose of confirming the comprehensiveness of initial list of educators involved in the delivery of the programmes at the respective institutions. After the integrity of the contact details were confirmed, the list was deemed to be the sampling frame for the study.

The breakdown of the universum of tourism and hospitality tertiary educators in the SADC region indicated that of the 184 tertiary educators identified, 172 were from South Africa; Malawi, Namibia, Tanzania and Zimbabwe having 2 educators each; Botswana, Mauritius, Seychelles and Zambia having 1 educator each; and, Angola, the Congo, Lesotho, Mozambique and Swaziland provided no evidence of any tourism and hospitality tertiary educators.

There was however a high non-response rate of about 80% from the tertiary education providers from within the SADC region (excluding South Africa), so a non-probability purposive sampling method, namely proportional quota sampling, was applied which the responses of 51 SADC tourism and hospitality tertiary educators were used (of which 80% of respondents were from South Africa).

2.1 Research model

The conceptual framework that was adapted, for the SADC context, was the one used in the Sigala et al (2002) study to determine the level of Internet usage amongst European educators in the tourism and hospitality higher education. The study used the Technology Acceptance Model (TAM), as used by the aforementioned Sigala study, for investigating key factors that determine the successful implementation of technological innovation. According to Sigala et al (2002), many authors have empirically confirmed the full causal relationship between the TAM model's constructs. For the purpose of this study, as in the Sigala et al (2002) study, the perceived use and usefulness of the Internet, was conceptualized as potential factors affecting the use of the Internet for educational purposes. The perceived use of the Internet variable was measured by two constructs, namely, the perceived competence with technology (using 6 item Lickert scale) and the perceived level of ICT support (4 item Lickert scale). The usefulness of the Internet variable was measured by the following constructs: the perceived usefulness of the Internet as an educational tool (4 Item Lickert scale), and, the perceived functionality of the Internet's functionality (10 item Lickert scale).

2.2 Research instrument

The research instrument was written in English and developed with close-ended multiple-choice questions and statements, to be rated on a Lickert-type scale. Pilot testing was carried out on the questionnaire.

It was initially developed in an electronic format for completion on the Walter Sisulu University's (former-Border Technikon) web site. E-mail invitations were sent to the research sample, requesting educators to complete the questionnaire electronically within a 30 day time-frame.

The initial response rate was poor, with only 10 respondents having completed the questionnaire by due date. Follow-up e-mail communication to encourage respondents to complete the electronic questionnaire did not improve the response rate. Thereafter, members of the sample were contacted directly by telephone, appointments were made, and the research was conducted by means of telephonic interviews. Consequently, the proportional quota sampling method was used as a means of identifying respondents for this study and in this way; a total response of 51 (28% of the universum) tertiary level educators was achieved.

The majority of the respondents were female (66%) and up to 76% had tertiary teaching experience in tourism and hospitality of up to 10 years (with 38% of these having under 5 years experience and 38% of these between 5 and 10 years of experience). The majority (46%) of respondents were aged between 30 and 40 years, with an additional 26% being aged between 23 and 30 years. Half of the respondents held posts at lecturer's grade (50%); 18% at junior lecturer's grade, and 14% at senior lecturer's grade, with 14% being heads of department. The respondents represented a diversified sample in terms of the generic discipline that they were teaching. Specifically, a quarter of the respondents (25.5%) indicated that they were involved with the teaching of marketing, followed by a 9.8% each in operations management and human resource management. Generic tourism subjects were indicated as the most popular by the educators (58.9%), followed by generic hospitality subjects (19.6%). Subject such as economics, law, and organizational behaviour and research methods were taught by few of the respondents (3.9% each) and none of them taught ICT management.

2.3 Research questions

Our research seeks to answer the following research questions: whether or not tourism and hospitality tertiary educators use the Internet in the delivery of education; the nature of the use of the Internet in tertiary tourism and hospitality education; and the Internet factors that limit the use of and the delivery of tertiary tourism and hospitality education. The primary aims of this study were to investigate the level and type of use of Internet tools (i.e. the Internet and electronic discussion tools such as e-mail and on-line fora) for delivery by tourism and hospitality education SADC; and to examine factors determining the adoption and level of use of Internet tools in order to benefit from current experiences in the implementation of the Internet in classroom methodology.

3. Results

3.1 Type and level of usage of the Internet and electronic discussion groups

The study found that the respondents used the Internet heavily for: searching for information (29%-very often, 33%-often), looking for case-studies (21%-very often, 29%-often), and searching for and reading academic articles (25%-very often, 29%-often). The following activities were least used: publishing learning material (57%), publishing material regarding the module (66%), conducting examinations and student assessment (59%),

conducting course evaluations (57%), and, providing student links with industry news (37%). The purpose for which the respondents used the Internet also showed that the majority do not use the Internet to communicate with students (58%); nor to distribute information regarding the course (53%); distribute learning material (54%); conduct examinations or assessments (72%); conduct course evaluations (63%); develop on-line discussion groups (68%) or provide feedback to the learners (70%). However, a notable proportion of the respondents sometimes used the Internet to distribute learning material (26%); conduct assessment (16%); and, developed course evaluations (20%).

3.2 Factors affecting the Internet's usage levels

The study probed the reasons why respondents do not use Internet tools for teaching, and the following was found:

- High proportion of respondents strongly agreed that the lack of student access to computer laboratories (74%); lack of student training in Internet-related areas (56%); lack of availability of relevant portals (47%); computer equipment constraints (59%); the lack of a comprehensive directory of web resources (49%); the lack of student incentives to use the Internet (57%); lack of appropriate educational software; and very slow Internet connections (50%) were the main reasons why Internet tools were not used.
- Most respondents strongly disagreed that the following were relevant reasons as to why the Internet tools were not being used for e-learning: lack of academic staff training in Internet-related areas (57%); lack of academic staff access to computer laboratories (77%); lack of relevant informational or educational websites (60%); lack of access to relevant portals (54%); academic staff not being convinced about the learning students gain from the use of the Internet (75%); academic staff not convinced about the learning students gain from the use electronic discussions (59%); and the lack of academic staff incentives to use the Internet (59%).

This study also sought to determine the knowledge competency of respondents with regard to e-learning. Most respondents believed that they were very competent in computer software (78%); computer hardware (52%); browsing the Internet (91%); and using e-mail (100%). However, notable proportions of respondents did not feel competent at all in discussing electronic discussion groups (58%) or, using electronic discussions groups (52%). Respondents were asked to indicate their perceptions of functionality of Internet tools and most strongly agreed on the following: it is a valuable resource for gathering information (98%); it is a valuable tool for distributing information (96%); it is a fruitful platform for developing learning material (93%); Internet tools are valuable for developing on-line interactive discussion groups (81%); the Internet is slow (49%); information provision on the Internet is chaotic (37%); electronic discussions are not fruitful because the writers cannot interact with others (47%); it is valuable for keeping up-to-date (91%); there are no appropriate portals for identifying web resources (55%); and the Internet is of no significant value as an educational tool (59%). A sizable proportion of respondents strongly disagreed with some of the above statement, namely: that the Internet is slow (32%); information provision on the Internet is chaotic (46%); electronic discussions are not fruitful because the writers cannot interact with each other (30%); there are no appropriate portals for identifying web resources (55%); and the Internet is of no significant value as an educational tool (42%).

Respondents were asked to rate the usefulness of the Internet as an educational tool and they strongly agreed on the following: the Internet provides the educators with data that had not been accessible to them before (94%); the Internet allows faster information gathering than other information resources (90%); the Internet enables the development of interactive discussions that had not been possible before (84%); and the Internet tools allows the immediate distribution of information in a way that was not possible before (96%). Finally, respondents were asked to rate the level of IT support that they received and most agreed that: getting assistance from the IT personnel is easy (92%); information regarding the Internet tools is available (85%); the extent of user support is appropriate (90%); and problems or requests are answered reliably (86%).

4. Conclusion

It should be noted that because of the limited response rate from SADC higher tourism and hospitality education educators (apart from South Africa), it is not possible to claim that the findings in this study are generally representative of the SADC region. The researchers speculate that the situation, concerning the use of tourism and hospitality higher education e-learning, is most likely worse in a number of SADC member countries than what the results of this study suggest. In addition, the sample size was determined in part by budget constraints, which inherently impeded the study. However, this study provides critical insight on the state of affairs in tourism and hospitality higher education e-learning in SADC. It is a ground-breaking study which could be explored further through longitudinal studies with larger samples.

The research clearly indicates that the educators themselves seem to have no problems with access to e-learning resources and infrastructure and are seemingly aware of the benefits of e-learning for learners. Furthermore, the study revealed that the respondents had an adequate understanding of e-learning software and hardware issues, and received adequate support from their IT departments implementing e-learning. It can thus be surmised that though the Internet's perceived usefulness and ease of use is understood, there is lack of understanding regarding its strategic value to the tourism and hospitality industry, in particular, has a significant effect on the reported patterns of the Internet's educational implementation.

To allow educators to further increase and enhance their type and levels of use of Internet's tools in their pedagogical modes, institutions need to formulate strategic plans and implementation practices that overcome obstacles in educators' behaviour toward developing the full potential of e-learning in tourism and hospitality higher education. South Africa has a potentially important role to play in providing support for developing a tourism and hospitality e-learning tertiary education platform for learners throughout the SADC region.

The findings seem to suggest that the SADC educators lack a strategic sense of how to implement e-learning in tourism and hospitality higher education. Educators treated the Internet as a simple information-searching medium, with little sharing or making information available to learners; or, communicating with their learners. A noticeable proportion of SADC educators however, are increasingly aware of the potential of e-learning in delivering education to learners who otherwise would not be able to enter tourism and hospitality higher education. Regarding factors affecting the usage of the

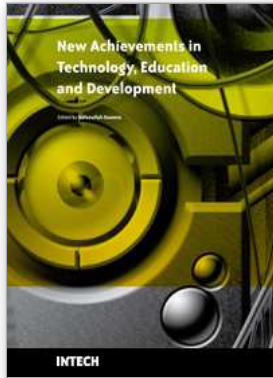
Internet, the research reveals that most respondents believe that poor IT infrastructure and poor student preparedness in the use of e-learning are the main reasons for not using e-learning as an educational tool. Importantly, the research seems to suggest, albeit indirectly, that the educators do not appreciate enough the value of the Internet (and e-commerce in general) as a developmental tool in promoting new positive attitudes concerning sustainable tourism development and improving the quality of life of the recipient communities. There are a number of implications, according to Sigala (2002 a), for e-learning in tourism and hospitality higher-education. Educators need to move away from e-learning models that simply re-implement existing practices by “webifying” them. As e-learning is redefining how skills and knowledge is acquired, educators should re-examine how e-learning occurs and how e-learning instruction can be facilitated. Educators need to migrate to higher-order e-learning models that more fully exploit the Internet’s capabilities and tools to advance e-learning and learning. Student-centred (collaborative and constructivism) and student-determined (personalised) e-learning environment are steps toward that direction. It is important to create conditions that favour e-learning and to eliminate barriers that prevent learners from participating in e-learning (Collins et al, 2003). This is very relevant for the SADC region which is plagued by: HIV/AIDS (and therefore; single parent, or no parent families); poor infrastructure; and general poverty, not to mention the huge disparity that exists between South Africa and the other SADC members-states in the provision of e-learning and the potential danger of domination of this area by South Africa.

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