Chapter 45

Virtual Tourism and Its Potential for Tourism Development in Sub–Saharan Africa

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ABSTRACT

Rapid growth of ICT has resulted in the development of innovative tools that could extend opportunities for tourism destination marketers and tourists. ICT-based tools expand the tourism product and tourism experience into the realm of virtual tourism (VT). Since the tourism product is intangible and cannot be pretested by tourists before purchase, VT makes it possible to sense the experience through virtual reality (VR). This chapter focuses on how VT could be explored to realize its full potential, particularly by Sub-Saharan African countries. The first section reviews the literature on VR and its relationship to VT and examines ICT components that support VR and VT. The second section explains reasons for interest in VT and identifies development efforts. The third section examines tourist attractions that could be marketed as VT in the sub-region and also identifies markets. The fourth section identifies problems and makes suggestions to address problems in VT development. The fifth section recommends areas for VT research, and the final section provides concluding remarks.

INTRODUCTION

The rapid growth of ICT (Information and Communications Technology) has resulted in the development of innovative tools that could extend new opportunities for tourism destination marketers and potential tourists. The ICT-based tools provide the option of expanding the tourism product and tourism experience into the realm of Virtual Tourism (VT). VT has been defined as an ICT-based tool that can facilitate potential tourists' experiencing tourism attractions via the medium of Virtual Reality (VR) without visiting these tourist destinations. Since the tourism product is intangible and therefore cannot

be pretested by the potential tourist before purchase, VT makes it possible to have a sense of the experience through immersion in VR. This chapter focuses on how the phenomenon of VT could be explored to realize its full potential, particularly by Sub-Saharan African countries. The chapter is divided into six sections. The first section reviews the literature on the concept of VR and also discusses VT in the context of VR. The section also examines the ICT components that support VR and consequently VT. The second section explains the reasons for the rise of VT and identifies some of the efforts and attempts (e.g. teleporter booths with 4D renditions of exotic destinations; virtual walks through historical sites) that have been made to develop VT as a part of the tourism industry. The third section, examines some tourist attractions that could be marketed in the form of VT in Sub-Saharan Africa (SSA) to add value to the sub-region's existing physical tourist attractions. The section also identifies potential Sub-Saharan African VT markets. The fourth section identifies problems and provides suggestions to address problems that might scuttle these efforts at VT development. The fifth section recommends some areas for future research in VT and the sixth and final section provides some concluding remarks.

BACKGROUND

VT is an ICT-based tool that involves participant immersion and interaction (via visual graphics, sound, etc.) with the culture, history or other aspects of a tourist destination without physically traveling there (Ali & Frew, 2014). Sussman & Vanhegan (2000) indicated that VT is a convergence of human and computer interfaces to establish a 3D illusion of virtual (nonphysical) travel experiences. VT is also referred to as simply cybertourism (Prideaux, 2002). There are many technology-based activities assumed to belong to the realm of VT (e.g. panoramic photographs of a location). One of the fundamental characteristics of a VT experience is the level of interactivity by the person within the virtual environment. Creating a more realistic human experience within the realm of VT requires a technological framework that allows the user to establish a presence in a virtual environment. This framework is known as VR.

VR is "a medium composed of interactive computer simulations that sense the participant's position and actions and replace or augment the feedback to one or more senses, giving the feeling of being mentally immersed or present in the simulation (a virtual world)" (Sherman & Craig, 2003, p. 13). Pinho (as cited in Piovasan, Passerino & Pereira, 2012, p. 296) suggests that the essence of VR is captured by three fundamental purposes: immersion, interaction and involvement. Immersion refers to the degree to which the person is disengaged from the real world and perceives a connection to a virtual world synthesized by computer technology. The term interaction connotes the user's ability to alter or reshape components of, or objects within a virtual environment. Involvement means that the user can navigate the virtual space (either actively or passively) to the degree desired.

In order for a VR application to meet its purposes and function properly, a VR system must be in place. A VR system consists of hardware—a computer/VR engine connected with input and output devices, e.g. keyboard, mouse, a helmet or head mounted display (HMD); software (application software and databases saturated with useful information)(Sherman & Craig, 2003). The market value of VR technology is projected to increase from $980.4 million in 2014 to approximately $1.66 billion by the year 2020 (MarketsandMarkets, 2015). According to IHS Technology, the demand for VR products will increase and approximately 7 million VR headsets will be purchased by consumers by the end of 2016 (Graham, 2016).

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