Factors affecting agritourism growth in rural communities of Lesotho

Introduction

Agritourism is regarded as one of the fastest growing industries in ecotourism. Hegarty and Przezborska (2005) mention that rural tourism and agritourism are terms that are used interchangeably, as agritourism is seen as part of the overall concept of rural tourism. Forcaro (2009:2) defines agritourism as ‘... activities of hospitality performed by agricultural entrepreneurs and their family members that must remain connected and complementary to farm activities’.

Havlicek, Lohr and Benda (2011) refer to agritourism:

... as a specific form of local tourism that involves tourists staying on a farm and engaging in daily agricultural activities and learning of the traditional rural activities that take place on the farm which include: – horseback riding, winery tours, agricultural exhibits, farmers markets, fishing, garden tours and on-farm sales. (p. 45)

Hatch (2006) mentions that agritourism dates back to the late 1800s when people left cities and went to farms to visit their relatives for a short period of time. It became easier for people to travel to rural areas after the invention of motor vehicles in the 1920s. Hatch (2006) further explains that the Great Depression and World War II also gave rise to the first significant interest in rural development in the 1960s. From the 1970s, horseback riding and farm petting zoos became popular. In the 1980s and 1990s, farm vacations, overnight stays at bed and breakfast facilities as well as commercial farm tours became popular. Today, the demand continues to grow for agritourism.

Background

Lesotho is a landlocked country completely surrounded by the Republic of South Africa. Tregururtha (2012) explains that the population of Lesotho is approximately 2 067 000, and 58% of the population live below the poverty line. Although the country is located in the centre of the largest and most sophisticated economy on the African continent, Tregururtha (2012) mentions that Lesotho has not yet fully escaped poverty. Instead, it serves as a labour reservoir for South African mines and industries. According to Anon (2012), Lesotho receives its foreign exchange earnings from South Africa through exportation of garments, diamonds, wool and mohair. The country is also

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experiencing low economic growth, poor agricultural productivity, low wages, limited industrial skills, poor physical infrastructure and high cost for cross-border logistics. These factors have led to an unhealthy dependence on South Africa and external assistance for employment, income and high level institutions for education and research.

Agritourism in Lesotho is also not well documented. The reason for this is the fact that agritourism is still a new concept in Lesotho. Limited information can be found regarding agritourism in Lesotho. Mochebelele (2009) mentions that the tourism industry in Lesotho comprises a mix of interrelated service providers which include accommodation and hospitality providers, travel agencies, tour operators and public sector organisations, such as insurance and car hire companies. Mochebelele (2009) concludes that these stakeholders are expected to work together to promote the sector and bring both local and international tourists to the destination of their choice. McKeeman and Rozga (2007) highlight the poor quality of tourism products and services, lack of knowledge and limitation of product supply as some of the challenges for the country in seeking to develop the tourism industry. Since Lesotho is constituted mainly by the rural areas, the majority of communities rely on agritourism as the main source of household income contributing towards the nation’s Gross Domestic Product (GDP).

**Agritourism development in rural communities**

There is huge potential for agritourism development in rural communities that may sustain the rural economy. However, this potential is overlooked. Mnguni (2010) notes that agritourism increases the demand for travel experiences, especially in the rural communities and marketplace where tourists learn about agricultural landscape. Zaei and Zaei (2013) add that the increased demand for agritourism facilities assists in creating infrastructure utilities and amenities, and these are not only used by tourists but become valuable to the local communities as well.

Rural community life could be of a high standard if agritourism is developed by farmers with the introduction and development of better tourism marketing methods (Mnguni 2010). Dossa et al. (2001) mention that agritourism can be a vehicle for diversifying and establishing economies for rural communities by: creating jobs and increasing community income, providing a broader market base for local businesses and attracting other businesses and small industries. The authors further observe that agritourism can also be a means of diversifying the mix of tourism offerings available to visitors and positioning rural communities uniquely for market share.

Rural communities provide economic and cultural support and, for these reasons, it is important to find ways to make rural communities viable (Inusa 2006). The author further states that policies and strategies which can create opportunities for development in rural communities need to be developed. Government and private sector organisations should recognise the significant role rural communities play in agritourism in determining social and economic benefits in developing countries. Inusa (2006) notes that it is important to provide the agritourism sector with possible guidelines that may assist farmers with Information, Communication and Technology (ICT) access, usage and in identifying possible ways of overcoming factors that inhibit the use of these technologies in their projects.

**The need for ICT in agritourism**

The role of ICT has been recognised in agritourism productivity (Pote 2008). According to Yalcin (2009), the advances in technologies are considered the main sources of growth in land and labour productivity. ICT strengthens the role of agritourism by allowing access to relevant information that may have effect on the contribution of sales and profits (Lawrence 2009). Mtenga et al. (2014) state that information is important in the agritourism sector, and farmers need this information to pursue their daily agritourism activities. May, Karugia and Ndokweni (2007) mention that ICT allows access to information at any time and may assist farmers to overcome some of the potential barriers that hinder the use of these technologies in the agritourism sector.

ICT has changed the nature of business transactions between consumers and suppliers of goods and services. According to Parker (2009), information technology-enabled services are useful in improving the capacity and livelihoods of people in the agritourism industry. For example, mobile cell phones have significantly reduced production and communication costs and provided new opportunities for agritourism stakeholders in exchanging relevant information through short messages.

The use of ICT in agritourism contributes to improving the communication and learning processes amongst farmers, employees, suppliers and customers involved in ecotourism. Tembo (2008) highlights the evidence of farmers using information technologies, such as computers and electronic-based mechanisms to collect, manipulate and process data automatically so as to control and manage agricultural processes. Buyukbay and Gunduz (2011:1) state that ‘farmers in rural communities may not be able to take part in the emerging information technology due to inadequate access to ICT infrastructure and services’. Despite the fact that ICT has been used for many decades, it is still new to farmers, especially in the rural communities of Lesotho. As there is a need for ICT in rural communities, Singh (2012) recommends that policy-makers of developing countries pay attention to deploying ICT in transferring these technologies for the benefit of farmers to enhance rural development.

Farmers in rural communities rely on the accumulated experience and support of stakeholders, such as government and non-governmental organisations (NGOs) for information
relating to farming products and services (Tembo, Simbanegavi & Owei 2010). Farmers receive information through newspapers, radio and television. Unfortunately, these media outlets are inadequate and provide limited information to farmers. According to Ellis (2004), it is evident that the majority of farmers in rural communities still rely on traditional practices such as consulting other farmers and using newspapers and radio to access information relevant to agritourism practices.

Challenges affecting ICT use in rural communities

Despite the importance of ICT for agritourism development and production, the agritourism industry is faced with many challenges which, according to Parker (2009) and Buyukbay and Gunduz (2011), include insufficient adoption of ICT, access to ICT infrastructure, high cost of ICT in general and the lack of ICT awareness and skills. The challenges are demanding, but within the challenges many opportunities are forthcoming (Buyukbay & Gunduz 2011).

Frempong (2008:4) states there is very little research published on agritourism in Lesotho. Agritourism is a neglected field of research especially in the field of the relationship between information technology and agritourism. According to the author, there is no relationship between research, agritourism services and private sector. The lack of these relationships results in poorly designed ICT offerings for the agritourism role players. For example, many farmers do not have access to ICT, resulting in the ICT offerings being difficult to use and thereby creating a challenging environment to develop agritourism as an industry.

The aim of this article is to explore the factors that affect the growth of agritourism as an industry in Lesotho. The study further aims to contribute towards agritourism development by identifying related studies and proposing guidelines to overcome the negative impacts of agritourism growth. The main objectives of this article are:

- to determine the types of ICT used by farmers in agritourism
- to investigate how ICT can contribute towards agritourism development
- to determine the factors that affect the use of ICT in agritourism
- to propose guidelines for ICT use by rural farmers in agritourism.

Theories of ICT use and adoption

Internet technology contributes significantly to the everyday life of people and is rapidly becoming visible in society and agricultural practices (Chong et al. 2010). There are a number of theoretical models that attempt to guide farmers who wish to use a practical approach towards information and technology for business operations and other activities. Other models attempt to explain the relationship between the users’ attitudes and beliefs regarding the use of technology.

These theoretical models include the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM) (Althunibat, Zain & Sahari 2011) and the Information Innovation Adoption model by Alvarez and Nuthall (2006). Parker (2009) states that amongst these models, TAM is said to be the most commonly accepted model because it explains and predicts users’ behaviour concerning IT. The author concludes that TAM is considered an influential extension of Theory of Reasoned Action (TRA), as presented in Figure 1.

TAM is an adaptation of the Theory of Reasoned Action (TRA) to the field of Information Systems. TAM suggests that perceived usefulness and perceived ease of use determine an individual’s intention to use a system, with intention to use serving as a mediator of actual system use. Perceived usefulness is also seen as being directly impacted by perceived ease of use.

The purpose of TAM is to provide a basis for tracing the impacts of external variables on internal beliefs, attitudes and intentions. TAM has been applied in studies to test user acceptance of IT. According to Masrom (2007), the use of ICT is considered as a system that uses the Internet to accomplish its mission of delivering information to, and interacting with, potential customers through the electronic medium.

Althunibat et al. (2011:2) state that ‘TAM (Figure 2) has introduced two important concepts being, the Perceived
Usefulness (PU) and Perceived Ease of Use (PEOU). PU refers to the degree to which an individual believes that using a particular system would enhance job performance, whilst PEOU refers to the degree to which an individual believes that use of a particular system would be free of physical and hard labour. In TAM, individual beliefs determine the attitude towards using the system, and, in turn, the attitude helps to develop the intention to use.

Theoretical framework underpinning the study

Because the study focuses on investigating the potential use of ICT by farmers, it adapts the Information Innovation Adoption Model (IIAM) of Alvarez and Nuthall (2006) to explain the behaviour of farmers and employees with regards to ICT use. Alvarez and Nuthall (2006) use two farming communities (Canterbury, New Zealand and Florida, Uruguay) to develop the model (IIAM) that explains the uptake and use of computers with the objective of gaining a better understanding of the processing. The IIAM uses information from both users and non-users of ICT. According to Alvarez and Nuthall (2006), the views and information from non-users of ICT are critical to improving effective adoption and use of ICT by farmers. The summarised factors that influence the uptake of ICT are as follows:

1. Farmers’ characteristics (age, experience, personality, education).
2. Community culture (network, associations).
3. Farm characteristics (size, type, geography).
4. Goals and objectives (attitude towards learning).
5. Decision-making and information management style (time, information sources, number, intensity in use, extension usage, and support from the outside).
6. Other elements: trust.

Based on Figure 3, there is a probability that farmers will keep searching for information until they feel that the cost incurred by continuing the search exceeds the benefits that can be secured by the information attained (Rajkai 2010:31). The IIAM shows that the use of technology by farmers relies on three types of variables, but the relationship amongst these variables is not a simple and direct one. The first group of variables consists of antecedent variables that are indicated by circles in Figure 16. In this model, the antecedent variables include characteristics of a farmer such as age, income, personality and formal education; farm characteristics such as farm size and crops grown on the farm; and community culture, which involve values, ideas as well as principles that were shared by the farming community when farmers were still young and developing their thinking (Alvarez & Nuthall 2006).

The second type of variables consists of mediating variables (which consist of coping style of farmers, use of ICT in decision-making, information management style, goals and objectives pertaining to ICT) that describe how the effect will occur by accounting for the relationship between the independent and dependent variables. Mediating variables explain why antecedent variables affect the outcome variables. It also provides an explanation and better understanding of information management behaviour. Lastly, the outcome variable reflects the use of an on-farm computerised information system. Outcome variables depend on antecedent and mediating variables. The current use of IT depends on community culture, farm and farmers’ characteristics, farmers’ goals and objectives, as well as management style.

Figure 16 also indicates that there is a direct and indirect relationship between the antecedent and outcome variables (Alvarez & Nuthall 2006). The authors explain that the reversible arrow on the antecedent variables indicate a one-way relationship between the variables, meaning that one variable can have a positive or negative effect on the other. One-way arrows indicate the link between antecedent and mediating variables and the final outcome variable. Each antecedent variable can, therefore, have either positive or negative effect. All these variables influence the final outcome variable, which is the use of information technology represented by the hexagon in Figure 16. All these groups of variables are investigated in the study and the data collection instruments have relevant questions that were asked about these variables.

Respondents who were targeted by Alvarez and Nuthall in 2006 were dairy farmers from two communities. In this study on agritourism in Lesotho, it was considered important to include farmers, farm employees, tourists and government officials as respondents. Farmers make decisions on which
ICT is suitable for use on the farm, whilst employees execute tasks given by farm owners. Tourists make use of these technologies to search, compare and book agritourism products and services, whilst government is involved in making rules and regulations when it comes to ICT deployment and use in the country (Tembo 2008).

The extended model is presented in Figure 17 and will be subject to modification, if necessary, to suit the result of the study.

The adapted information innovation adoption model

The IIAM was adapted to give a clear explanation for the use of ICT by agritourism farmers in rural communities of Lesotho. Figure 4 shows the adapted model of the IIAM for the study. As this study sought to investigate the use of ICT by farmers, the relationship between the three types of variables was explored to determine which variables affect the use of ICT by farmers.

The adapted model assisted in identifying factors that affect the use of ICT in agritourism. It shows how the identified factors contribute towards agritourism development as well as the shaping of government policies on agritourism development.

Alvarez and Nuthall (2006:51) define culture as the ‘farming culture that involves the values, ideas as well as principles that farming communities and farmers shared when they were children and developed their thinking’. Tembo (2008) notes that when farmers make decisions to further their business goals in a commercial enterprise, cultural values are taken into consideration. Farm employees can also not choose whether to use ICT or not at the work place. Their role is to perform activities assigned to them by their employers. Tourists can also not choose the type of technologies farmers decide to use because their deployment of technology is also determined by availability of ICT resources.

From the framework, variables that are significant and a relationship with ICT use (shown in Table 1) in agritourism, were evaluated.

Research methodology and design

Based on the need to understand the contextual and natural settings that affect the potential growth of agritourism in rural communities of Lesotho, an interpretive paradigm appeared to be appropriate for this study. This type of study has never been undertaken before in Lesotho, so the researcher employed a qualitative approach mainly because it provides rich data about the problem under investigation.
Multiple-case studies were used as a research strategy. According to Dobson (1999), a multiple-case study presents a suitable example on interpretive research. The intention of multiple-case studies in the context of this study was to gain an in-depth understanding of the problem under investigation. Non-probability sampling with judgemental sampling techniques were used to select a total number of six farms around the rural communities of Maseru that are involved in commercial farming.

The study applied content analysis as an appropriate approach for analysing data collected from face-to-face interviews. Interview questions were compiled to produce reliable response from the sample to determine what participants do, think and feel about specific factors affecting agritourism growth. According to Myers (1997), content analysis is used for making replicable and valid reference from data to their context. The reason behind this was to explore data in-depth and obtain a valid reference of the cases. Data from interviews were recorded and transcribed so that detailed analysis could be carried out. Data were then coded by looking for specific words relevant to the topic for which themes were identified in the text provided for analysis. Data were then grouped and distilled from the text and list of common themes to give expression to the communality of voice across participants.

Results

A total number of 23 respondents that were judgementally selected from the rural communities of Maseru, were asked what type of ICT farmers use in rural communities and the information that they need to successfully run their farms. They were also asked about the factors that affect the use of ICT in agritourism and how they can use ICT to enhance agritourism growth in rural communities.

The results showed that agritourism farmers use several technologies for agritourism purposes. These technologies include cell phones, radio, television, landline phones, computers, Internet, digital cameras and fax and voice recorders. The majority of the respondents mentioned that
the most accessible ICT in rural communities are radio and television. Some of the respondents regarded Internet and fax as important technologies that farmers can use. Digital cameras and voice recorders are mostly unused technologies. The lack of Internet connectivity with sufficient broadband and network coverage in rural communities are major stumbling blocks that hinder the effective use of ICT in the development and growth of agritourism as an industry.

The results of the study showed that farmers in rural communities make use of ICT to gain access to information relevant to agritourism. Some of the respondents mentioned that they use technologies to obtain information regarding best practices in the agritourism industry. Some of the respondents need information on market share as well as market prices. Others mentioned that they need new information technology that is being used in the agritourism industry. Some need information on funding as well as agritourism products and services that they can offer to their customers. These findings showed that farmers recognise the importance of ICT to access information relevant to agritourism, but it does not mean that farmers own these technologies.

The findings of the study revealed that the majority of respondents are aware of the technologies that are being used in the agritourism industry. However, there are certain factors that affect access and use of these technologies, especially in rural communities. The majority of the respondents mentioned that they find it expensive to purchase, use and maintain these technologies. Some of the respondents mentioned that the lack of infrastructure such as network connectivity, coverage, broadband availability and absence of electricity in rural communities hinder the growth and development of the agritourism industry. Some of the respondents mentioned that the level of education affects the farmers’ ability to use ICT effectively, therefore they recommended training. Some said they are aware of these technologies but do not know how to use or maintain them. This makes it difficult for them to gain the benefits and explore the opportunities that ICT offers.

The results of the study also revealed that farmers in rural communities can make use of ICT to gather information relevant to agritourism products and services in a quick and affordable manner. Respondents mentioned that they use cell phones to communicate with customers and suppliers through the use of Short Message Service (SMS), and this has assisted them in reducing communication and travelling costs. Some of the respondents mentioned that they use ICT to market their products and services to target markets. This finding shows that, even though farmers recognise the importance of ICT for marketing, it does not mean they have ownership of these technologies but suggests demand. The results also show that farmers use ICT for business transactions. Some of the respondents mentioned that they purchase some of their products online as well as perform online banking. Respondents also mentioned that it saves them time and effort for communicating important information.

Some of the findings showed that the government of Lesotho has taken necessary steps to promote higher levels of technology access and use in communities and schools. Respondents mentioned that the government is working on developing and improving existing ICT systems to enhance radio and television transmission and increase their coverage.

Discussion

The main issues that were identified with regards to the factors affecting the growth of agritourism as an industry in Lesotho were lack of infrastructure, lack of knowledge and need for ICT. Whilst the demand and access to technology is increasing, farmers need to bear in mind which technologies are easily accessible and being used in rural communities. The findings showed that radio and television are the mostly used and easily accessible technologies, even though accessibility by cell phones has increased.

With regard to lack of infrastructure, it is evident that the high cost of ICT infrastructure hinders access and use of certain technologies. Despite the lack of and poor infrastructure in the country, the government has been tasked with providing affordable, sustainable, reliable and highly quality ICT as a means of promoting economic development in the country. Lesotho is still amongst the least developed countries with regard to technology establishment. Amongst other ICT initiatives and projects, the government of Lesotho has also adopted a National ICT Policy that makes reference of and gives priority to the education sector.

Agritourism offerings depend on ICT and, as the results showed, it is evident that farmers are aware of certain technologies that are used in the agritourism sector. Farmers also view these technologies as necessary tools that can be used to improve the quality of information relevant to agritourism, and that they can help to promote agritourism products and services to a wider market through the use of the electronic media. As there is a need for ICT in agritourism, the government of Lesotho, together with the policy-makers need to invest in ICT infrastructure such as Internet access points, network signals, electricity, decent roads and all at low cost.

Another constraint on the use of technologies for agritourism growth remains lack of knowledge on how to use ICT. To overcome this constraint, ICT training and awareness campaigns should be provided to farmers, local communities and schools. Training is an important factor that will ensure that farmers are ready to use these technologies to promote sustainable development and enhance growth of the industry. Farmers are also encouraged to start saving for and investing in new technologies.

Conclusion

Based on the findings from the literature and interviews, it is evident that the majority of farmers are aware of certain
factors that affect the growth of agritourism, especially in the rural communities of Lesotho. Technology plays an important role in promoting sustainable development and improves the lives of farmers in rural communities. The study shows that the role of technology in agritourism has been recognised. However, businesses that do not have access to technologies such as the Internet and other related technologies may not benefit from electronic services that are offered and, therefore, will not be able to compete globally.

The study was able to identify the different types of technologies farmers use in rural communities. These consist of cell phones, radio, television and computers. Although these are technologies that are mostly used by the majority of farmers, they may still be unable to use these technologies to their full extent because certain factors hinder them from using them. The findings indicated that factors such as lack of infrastructure, lack of knowledge and high cost, amongst others, should be taken into consideration as they are the main factors affecting the use and growth of the agritourism sector in rural communities of Lesotho.

Recommendations

The researchers recommend that the following action steps be taken:

- Identify technologies that are being used in the agritourism industry.
- Explore which of these technologies are available to farmers in rural communities.
- Determine barriers that inhibit access and use of these technologies.
- Determine the cost of technologies in general (purchase, maintenance).
- Identify sources of funding for acquisition of technologies.
- Establish relationships with government, IT specialists and other stakeholders involved in agritourism.
- Determine the cost of information access through the use of technologies.
- Determine the cost of training for ICT use.
- Identify awareness programmes that specialise in technology use in business.
- Ensure that infrastructure needed for ICT use is available in the area.
- Enhance ICT use in rural communities as a priority for sustainable development.

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