Exploration and Implication of Factors affecting e-Tourism Adoption in Developing Countries: A case of Nepal

Abstract

E-tourism plays a pivotal role in delivering services to tourists by enhancing travel experiences. While small tourism service providers in the developed economies can efficiently take advantage of e-tourism by partnering with global online platforms such as TripAdvisor or Booking.com, small tourism service providers in developing countries often struggle to reach global markets due to factors that are unique to the country they operate in. The aim of this study, therefore, is to identify the key barriers and motivators of e-tourism adoption for small and medium tourism enterprises (SMTEs) in developing countries. Nepal is selected as the case study due to its enormous tourism potential that is plagued by typical challenges. Based on the 'Technology, Organization and Environment (TOE)' framework and 'e-readiness' model, this study identified ten key factors that affect e-tourism adoption by SMTEs in Nepal. A mixed-method approach, using interviews with seven key stakeholders and a survey with 198 SMTEs, were employed for data collection and validation of the proposed factors. Finally, an e-tourism adoption model highlighting the barriers and motivators for e-tourism by SMTEs is presented. This research found that e-tourism adoption by SMTEs in Nepal is affected by environmental factors related to national infrastructure, market size, country-specific contextual factors and organizational factors comprising e-tourism awareness, ICT resources, value proposition, and top management support. This study offers implications for policy and practice towards effective e-tourism adoption in other developing countries.

1. Introduction

Proliferation in the use of information and communication technologies (ICTs) has greatly impacted the tourism industry by providing relevant information and knowledge to both tourism service providers and tourists. In today's multi-billion-dollar global tourism business, travellers have access to faster and cost-effective online platforms for planning, booking and paying for their future trips (Buhalis & Jun, 2011). New technologies have offered tourists many choices during pre-purchase activities such as searching, planning and comparing relevant products and services offered in the tourism sector (Buhalis & Law, 2008). Likewise, tourists can access online reviews and compare and contrast a number of tourism service providers conveniently before making the final purchase decisions on travel destinations and services (Gonzalo, 2014).

Tourism is one of the premier export industries in developing countries and the number of inbound tourists is on the rise (UNWTO 2017). However, these countries are lagging behind in the adoption of ICTs due to their poor economies, lack of infrastructure and unskilled workforce. Consequently, they miss out on offering pre-purchase services even though they often have attractive destinations that may be of interest to potential tourists. The tourism service providers in developing countries, particularly small and medium tourism enterprises (SMTEs) that lack global connections, e.g. franchises of hotel chains and tour operators, are incapable of offering e-tourism features as part of their services. e-Tourism refers to e-commerce in the tourism sector, that is, the conduct of tourism-related activities including pre-purchase promotion and service delivery using ICT tools by tourism organisations. It also encompasses other business activities within the tourism industry, including marketing, ordering, supply chain management and transactions using ICT tools that include digital technologies beyond voice telephony and fax (Garrett & Skevington 1999).

Developing countries commonly share similar attributes related to turbulent macroeconomic and political factors, inadequate ICT infrastructure or low ICT adoption due to public resistance (Karanasios & Burgess 2008). General e-commerce adoption in developing countries is an extensively researched topic, however there is a limited focus on the e-commerce activities targeted towards the tourism industry, i.e. e-tourism adoption factors. Brdesee (2013) noted that e-commerce adoption factors differ significantly from industry to industry.

Using Nepal as a case study of a developing country, this research is aimed at identifying the motivators and barriers of e-tourism adoption in the developing world. Firstly, the choice of Nepal is based on the researchers' accessibility and proximity to the country, therefore a convenience sample. More importantly, Nepal has tremendous tourism potential with its natural beauty and diverse cultural heritage (Gautam, 2011). Further, tourism is perceived to produce a major economic and social impact in the Nepalese community (Dhakal et al. 2017). The tourism board of Nepal has introduced Visit Nepal Campaign 2020 to promote Nepal as a safe place to travel after the devastating earthquake in April 2015 that killed nearly 10,000 people and crippled the already fragile national economy (Nepal Tourism Board, 2019). Despite this campaign, adoption of e-tourism practices in the country is limited, and the majority of travel businesses still operate within a traditional 'bricks and mortar' model for travel planning and accommodation bookings with minimal e-commerce use (Shrestha et al. 2015) Consequently, developing countries like Nepal fail to reach their potential target market as tourism operators are unable to offer technology-enabled pre-purchase services. The primary objective of this research is twofold. Firstly, key barriers that affect e-tourism adoption by SMTEs in Nepal will be identified and secondly, a model for e-tourism adoption in developing countries will be proposed.

This study evaluates potential frameworks of e-commerce adoption suitable for the tourism industry (i.e. e-tourism adoption) in developing countries. After the analysis of existing literature and frameworks, an e-tourism adoption model is proposed. With the help of empirical data from both qualitative in-depth interviews with key stakeholders and a quantitative survey with SMTEs, this study evaluates the proposed e-tourism adoption model for the case study of Nepal. This model identifies the barriers and motivators specific to Nepal based on its unique context and specific environment. Finally, implications of the model for major stakeholders such as the government, tourism organisations and tourism associations in developing countries are discussed.

2. Background

The tourism sector earns more than eighty percent of export revenues in developing countries (Samimi et al., 2011). The World Tourism Organization (WTO) reported that the number of tourists visiting developing countries was forty percent of the total tourists worldwide in 2017, and this number is predicted to rise (UNWTO 2017). The WTO further claimed that tourism contributes between 3 and 10 percent of the Gross Development Product (GDP) in most developing countries. Karanasios and Burgess (2008) claimed that the tourism sector is the most appropriate industry

for ICT adoption due to the intangible and perishable nature of tourism services. Most tourism services (i.e. flight and hotel reservation, tour arrangements) can be organised online with the help of e-commerce tools and these processes are championed by tourism sites such as TripAdvisor, Expedia, and Booking.com. Before making the final decision regarding their trips, tourists invest a significant amount of their time in researching travel destinations and facilities. Tinsley and Lynch (2001) explained the critical role of pre-purchase services in tourism destination development. For example, in the accommodation industry, research has shown that as much as 27% of hotels communicate with their guests prior to their booking.

E-tourism enables potential travellers to compare different tourism services and view real-time prices in a transparent process before they purchase travel services (Buhalis & Jun, 2011). Tourism websites such as TripAdvisor and Booking.com offer opportunities to potential visitors to ask questions and at the same time access other peoples' experiences before making purchase decisions. The impact of e-tourism can be realised through TripAdvisor's monthly statistics as it contains over 170 million reviews and more than 280 million unique visitors (Gonzalo, 2014) which continues to grow every year.

However, in the context of Nepal, a limited number of studies have investigated e-commerce and ICT adoption. Some have identified unreliable power supplies and prolonged power cuts as significant barriers to implementing ICT in business in general (Kshetri 2007; Shrestha et al. 2015). Bhattarai (2011) presented four barriers for ICT adoption in his study through quantitative analysis: electricity and communication problems, lack of top management support, lack of IT infrastructure and services, and restrictive government policies. Likewise, three drivers that support e-commerce adoption are proposed: entry to the new market, instant service delivery, and global service coverage. Similarly, Pariyar (2007) identified the challenges related to e-readiness for the implementation of e-governance in Nepal: low political commitment, poor technology usage culture, communication problem among ministries, lack of e-literacy, and lack of human resources. However, his research lacks empirical studies to validate his claims. Schwab (2016) investigated the challenges of doing business in different countries and identified the impediment for Nepal. Although these investigations were not specifically conducted for the tourism industry, they provided general insights into the operating business environment in Nepal, which applies to the tourism industry as well. However, to the authors' knowledge, the specific challenges and opportunities in the tourism sector in Nepal with the adoption of e-tourism has not yet been undertaken.

Despite the significant growth of e-tourism, the adoption of ICT in this highly lucrative sector for Nepal has often been slow and scanty. Consequently, understanding technology adoption factors, including the key barriers and motivators for e-tourism, is imperative to promote tourism in developing countries like Nepal. The following section reviews studies related to technology adoption factors.

2.1. Technology Adoption Factors

Due to the challenges related to ICT infrastructure and services, developing countries have a low rate of ICT usage. Kshetri (2007) pointed out that ICT-related services are often earmarked for the privileged societies in developing countries. Therefore, ICT adoption is considered to be at an embryonic stage in these countries (Datta, 2011). Indexes related to ICT usage, such as the e-readiness index, the digital divide, and the ICT development index, show low penetration of ICT usage. Results from studies conducted by Kshetri (2007) and Datta (2011) showed that the use of e-commerce brings significant benefits to the developing countries as it supports business operations, increases human efficiency and productivity, as well as communication (Karanasios & Burgess, 2008). Shemi (2013) further noted that ICT embeddedness provides greater geographic reach and facilitates information sharing and cost reduction which in turn provides a unique competitive advantage to enterprises. Due to these key benefits attained through ICT services, more developing countries are keen to deploy supporting ICT infrastructure (Kabanda & Brown, 2010; Kapurubandara & Lawson, 2006). Nevertheless, most of the businesses in developing countries have only embarked on entry-level use of e-commerce due to traditional ICT infrastructure challenges, insufficient resources and poor operational security (Molla & Licker, 2005).

While e-commerce adoption has been a widely researched topic, only a few studies have investigated it in developing countries within a particular industry context. Prior studies focus predominantly on small and medium enterprises (SMEs) in general (e.g. Kabanda & Brown, 2010; Kapurubandara & Lawson, 2006; Shemi, 2013; Zaied, 2012) rather than specifically focusing on a particular industry. In addition, although studies have showed the importance of tourism-related products and services in developing countries (Karanasios & Burgess 2008; Kshetri 2007), concerns related to taxation issues, increased competition, and financial security and privacy threats were raised by other researchers (e.g. Uzoka & Seleka 2006).

Based on extant literature, critical factors related to e-commerce adoption in the developing world include awareness, infrastructure, resources, security issues, socio-cultural-political factors, benefits, top management, and market conditions. Molla and Licker (2005) found that these factors are associated with five areas that include: i) innovation, ii) the organization, iii) the environment, iv) the managers, and v) interactionism (interaction among the above factors).

Table 1 below highlights the e-commerce adoption factors identified in the literature irrespective of the countries' economies.

Table 1: Factors affecting e-commerce adoption in general

Factor	Relevant literature
Poor Internet connectivity	Datta (2011); Hunaiti et al. (2009); Kshetri (2007)
Cultural barriers	Datta (2011); Kapurubandara & Lawson (2006); Kshetri (2007); Zaied (2012)
Lack of technical skills and knowledge	Kapurubandara & Lawson (2006); Kartiwi & MacGregor (2007); Lawrence (2001); Simpson & Docherty (2004); Zaied (2012)
Inadequate infrastructure (telecommunication, financial, transportation)	Datta (2011); Hunaiti et al., 2009; Kapurubandara & Lawson (2006); Karanasios & Burgess (2008); Kshetri (2007)
Electricity	Kabanda & Brown (2010); Kapurubandara & Lawson (2006); Karanasios & Burgess (2008) Shemi (2013).
Lack of legal infrastructure	Hunaiti et al. (2009); Kapurubandara & Lawson (2006); Kartiwi & MacGregor (2007); Shemi (2013); Zaied (2012).
Low bank account and credit card penetration	Kapurubandara & Lawson (2006); Kshetri (2007); Zaied (2012)
Market readiness and size	Molla & Licker (2005)
Security concerns and trust	Kshetri (2007); Lawrence & Tar (2010); Shemi (2013); Zaied (2012)
Privacy concerns	Bella et al. (2011); Shemi (2013)
Cost of resources to implement e-commerce	Datta (2011); Karanasios & Burgess (2008); Kartiwi & MacGregor (2007); Uzoka & Seleka (2006)
Technological resources	Ahmad et al. (2015); Kapurubandara & Lawson (2006); Molla & Licker (2005)
E-commerce not suitable (poor product match)	Al-Weshah & Al-Zubi (2012); Kartiwi & MacGregor (2007)
Lack of human skills and resources	Kabanda & Brown (2010); Kapurubandara & Lawson (2006); Kartiwi & MacGregor (2007); Zaied (2012)
Language barriers	Kapurubandara & Lawson (2006); Karanasios & Burgess (2008); Kshetri (2007)
Lack of a payment gateway or credit card problems	Datta (2011); Karanasios & Burgess (2008); Kartiwi & MacGregor (2007); Uzoka & Seleka (2006); Kapurubandara and Lawson (2006); Kshetri (2007); Hunaiti, Masa'deh et al. (2009)
Expensive and unreliable shipping service	Kshetri (2007); Uzoka and Seleka (2006); Hunaiti et al. (2009)
Lack of Government policies, support and laws	Hunaiti et al. (2009); Kapurubandara & Lawson (2006); Zaied (2012)
Political situation	Al-Weshah & Al-Zubi (2012); Kapurubandara & Lawson, (2006)
Incentives from government	Al-Weshah & Al-Zubi (2012); Hunaiti et al. (2009); Karanasios & Burgess (2008); Shemi (2013)
Supporting IT industry	Brdesee (2013); Kabanda & Brown (2010); Molla & Licker (2005)
Awareness about e-commerce	Ghobakhloo & SH (2011; Kapurubandara & Lawson (2006); Kshetri, (2007)
Perceived benefits	Grandon & Pearson (2004); Kapurubandara & Lawson (2006); Shemi (2013).
Pressure from competitors	Chen & McQueen (2008); Chong & Pervan (2007); Simpson & Docherty (2004)
Relative advantage	Ahmad et al. (2015); Brdesee (2013); Dwivedi et al. (2009); Grandon & Pearson (2004)
Owner support	Al-Weshah & Al-Zubi (2012); Kapurubandara & Lawson (2006); Karanasios & Burgess (2008); Shemi (2013)
Owner characteristics	Brdesee (2013); Kapurubandara & Lawson (2006)

2.2. Case Study – ICT adoption & Tourism in Nepal

Widespread Internet usage started only in the early nineties in Nepal. However, the overall development of ICT in the country has been slow. The first IT Policy was drafted by the Nepalese Government in the year 2000 (Nepal Ministry of Science and Technology, 2000) with the aim of making ICT more accessible and foster a knowledge-based society. The Electronic Transaction Act 2008 was passed to provide a foundation for the operational and legal aspects of e-commerce, more importantly, online transactions. In addition, the act was formulated with provision for concerned authorities associated with e-commerce transactions, including the IT Tribunal, Controller of Certification Authority & Certification, authorities for digital certificates and dispute settlement. Nevertheless, due to socio-political challenges and other incumbent circumstances, the key objectives of the act have not been fully materialised (Dhami 2015). Likewise, the Nepalese government further proposed an e-Governance Master Plan (e-GMP) to achieve transparent governance and socio-economic development throughout the country. Some of the key objectives of the Master Plan include transparency, accountability, poverty alleviation, reduction in corruption, informed citizen and better government service delivery (Bhattarai 2006). Adequate development in the ICT sector however, is yet to become a primary agenda as the government prioritizes fundamental necessities such as poverty alleviation and primary education, or addresses basic infrastructure problems. ICT infrastructure, as a result, remains underdeveloped in Nepal and mainly centralised in the capital city of Kathmandu.

Aryal (2016) highlighted that the absence of an appropriate international payment gateway is one of the primary hindrances for low e-commerce adoption in Nepal. Most of the payment cards (i.e. bank cards) issued by the local banks are only functional on selected websites using payment gateways within the country. These shortcomings have significantly limited international tourists to transact with SMTEs directly.

There are close to 5000 tourism organizations registered with the Tourism Department of Nepal. Most of these service providers arrange tours, trekking or accommodation services. A number of independent and not-for-profit representatives of these tourism organizations include the Nepal Association of Tour and Travel Agents (NATTA), the Hotel Association of Nepal (HAN) and the Trekking Agents Association of Nepal (TAAN). An independent government body dedicated to representing Nepal tourism to the world is the Nepal Tourism Board (NTB) which operates under the federal government authority of the Ministry of Culture, Tourism and Civil Aviation (MoCTCA). Figure 1 presents an overall structure of Nepal's tourism organisations and its major stakeholders.
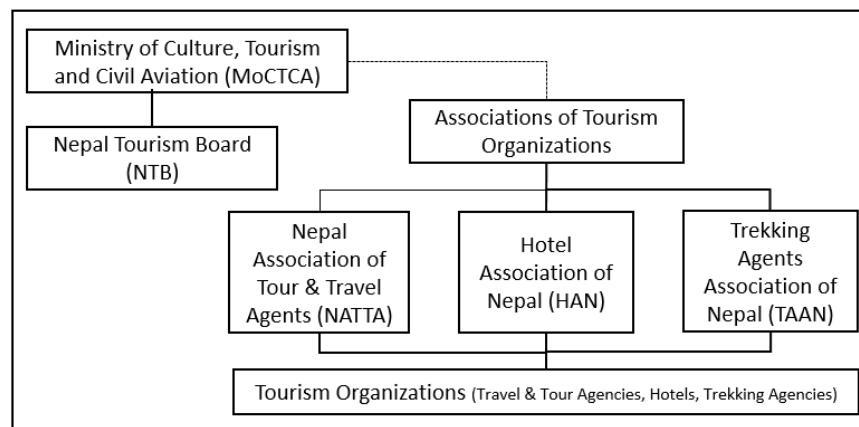

Figure 1. *Nepal tourism governance structure*

3. Research Methodology

This research used mixed methods (a combination of both qualitative and quantitative methods) as the triangulation of multiple methods for data collection and analysis which provides greater interpretability, reliability and internal validity to the result (Creswell & Clark 2011). Mixed methods are appropriate when research involves both exploratory and confirmatory research inquiries (Venkatesh et al. 2013). In the mixed-method paradigm, research usually starts with a qualitative method and is followed by a quantitative method (Venkatesh et al. 2013; Sale et al. 2002). In this

study, for the qualitative part, we have used semi-structured interviews with relevant stakeholders such as representatives from tourism associations as shown in Figure 1 above, government officers, a founder, and a manager of SMTEs in Nepal. The collected data from interviews helped to further develop the conceptual model after the extended literature review shown in Table 1 above. The data also helped to update survey questionnaires for the quantitative method. The survey was conducted with SMTEs to confirm the adoption model.

The participants for the semi-structured interviews were selected through a purposive sampling technique. This non-probability sampling method provides better convenience to the researchers in terms of selecting the informants according to their knowledge and experience (Tongco 2007). Seven informants took part in the interview process and their roles, organisations or the specific industry sector they represent and a number of years in the industry are provided in Table 2 below.

Table 2: List of interview participants

Interviewee Code	Role	Organisation	Industry Sector	Number of years in the industry
P1	CEO	TAAN	Trekking	25 +
P2	President	NATTA	Travel and Tours	15 +
P3	IT Representative	HAN	Hotel	35 +
P4	IT Director	NTB	Promotion	10 +
P5	IT Minister	MoCTCA	Governance	5 +
P6	Owner	SMTE (Travel agency)	Travel	15 +
P7	Manager	SMTE (Trekking agency)	Trekking	10 +

The first author travelled to Nepal to conduct these interviews first-hand in April 2017 for a month after a series of email exchanges. Prior to the interviews, the participants were ensured anonymity and asked for permission to record the interview for accuracy purposes. The interviews were recorded, transcribed within 24 hours and the de-identified text transcripts of the interviews are stored on a secure university file. Each interview went for about an hour. The primary objectives of the interviews were to validate the proposed factors (Figure 2) and explore other factors (Table 5) that were derived from the extended literature review. The interviews were analysed using thematic analysis technique using the identification of key themes and sub-themes. The thematic analysis allows to report participants' viewpoints, experience and sense of the issues while considering how event, realities, and meaning of such events emerges (Braun & Clarke 2006)

The majority of factors identified from the thematic analysis were consistent with the compiled factors from the literature review (Table 1). Based on the analysis, two new sub-themes emerged: 'Resistance to Change' and 'Awareness of Social Media'. These two sub-themes were classified under the existing factors and questions related to these two sub-themes were also added to the survey instrument for the quantitative inquiry.

For the quantitative part, we used a simple random sampling method that provides a greater probability for all the respondents to be selected (Creswell & Clark 2011). The list of SMTEs was originally provided by the major associations: NATTA, HAN, and TAAN. We randomly selected 250 SMTEs (around 5 percent of the total number of organisations) and invited them to take part in the survey. They were first contacted via phones available through their websites or corresponding associations. A Research Participant Information Sheet prepared under the guidelines of the university Ethics Team was provided to all participants. The process went for 5 months between 2017 and 2018. Four delegates appointed by the first author collected 204 responses (almost 82 percent). Delegates were trained face-to-face initially and through Skype calls on three different occasions. Out of 204 responses, 6 were not completed and hence removed. Thus, only 198 SMTEs' responses were used for quantitative analyses. Details of SMTEs participants are shown in Table 3 below:

Table 3: SMTEs Participants Information for Quantitative analyses

Industry Sector	Total number (2014)	Number of SMTEs		Number of Staff	Number of SMTEs		Dedicated IT Staff	Number of SMTEs
Trekking	1,860	72		Up to 20	138		0 or self-managed	85

Tour and Travel	2,112	98		21 to 50	52		One IT staff	40
Hotel	956	28		51 to 100	8		2 to 5 IT staff	23
Total	4928	198		Total	198		Third-party provider	50
							Total	198

Distribution among different industry sectors of each association such as trekking, travels, and hotel is more or less in line with the actual number of SMTEs in the country. For example, 2,112 tour travel agencies represent 43% of total SMTEs whereas 98 out of 198 participants equates to 49% of total SMTEs as participants. Similarly, trekking agencies and hotel organisations follow a similar pattern: 38% actual trekking agencies vs 36% participants and 19% actual hotel organisations vs 14% participants respectively.

The majority of the SMTEs are found to be small having less than 20 staff members. As this study aims to investigate SMTEs only, the big and multinational tourism enterprises with more than 100 staff such as five-star rated hotels and airlines were excluded.

The actual number of IT staff among all SMTEs participants is also captured in the table above. About a quarter of participants indicated that they use a third-party IT vendor for their IT related work whereas 85 of them (43%) indicated that the owner or manager of the organisation cover the IT role themselves as they do not have a high level of IT work involved in their organisations.

Hypotheses were formulated to validate the adoption factors and to test the relationship between different factors and e-tourism adoption by SMTEs. A five-point Likert scale was used in the survey questionnaire where the highest scale 5 represented 'strongly agree', and the lowest scale 1 represented 'strongly disagree'. The SPSS software was used for the statistical analysis of the quantitative data. A binary logistic regression method was employed to test the hypotheses because of the nature of dependent variables. To ensure consistency and quality of the collected data, reliability and validity checks were conducted.

4. Theoretical Perspectives of e-Tourism Adoption

In building the theoretical foundation for this study, widely accepted technology adoption theories were reviewed. These includes the Theory of Reasoned Action (TRA) (Ajzen & Fishbein 1980), Technology Acceptance Model (TAM) (Davis 1989), Technology, Organization and Environment (TOE) model (Tornatzky et al. 1990), TAM 2 (Venkatesh & Davis 2000), Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003) and e-Readiness model (Molla & Licker 2005).

To establish a model for e-tourism adoption for Nepal, each theory and its components were examined for its relevance. Evaluation criteria for fit of these well-established theories were based on three key parameters: (a) Unit of analysis: individual (I) or organisation (O); (b) prior studies in the context of developing countries; and (c) focus on technology. Table 4 below presents the comparative evaluation of technology adoption theories for e-tourism in developing countries.

Table 4: Comparative evaluation of technology adoption theories for e-tourism in developing countries

Theoretical Framework	Review	Evaluation		
		Unit of Analysis	Context of Developing Countries	Technology Focus
TRA (Ajzen & Fishbein, 1980)	Studies human behaviour at the individual level rather than organisation level.	I	✗	✗
TAM (Davis, 1989); TAM 2 (Venkatesh & Davis, 2000)	Relevant for individual-level technology adoption	I	✗	✓
TOE (Tornatzky and Fleischer, 1990)	Studies innovation adoption on the organisation level.	O	✗	✓

UTAUT (Venkatesh et al., 2003)	Technology adoption study at the individual level.	I	✕	✓
E-readiness model (Molla & Licker, 2005)	Studies perceived organisation e-readiness and environmental e-readiness.	O	✓	✓

Table 4 illustrates that TOE (Tornatzky & Fleischer 1990) and the e-readiness model (Molla & Licker, 2005) are most relevant to the purpose of this study since the unit of analysis is the organisation. In addition, among these two theories, the e-readiness model has also been previously studied in the context of developing countries. The TOE emphasizes three key factors that influence technology adoption within a business: technology, organization, and environment. On the other hand, the e-readiness model focuses on perceived external e-readiness (PEER) and perceived organizational e-readiness (POER) towards technology adoption. Seven themes have been proposed from these two theories: market forces, supporting industries, contextual factors, infrastructure, awareness, resources, and owner/top management support. As presented in Figure 2, these themes are classified under environmental/external and organisational/internal categories.
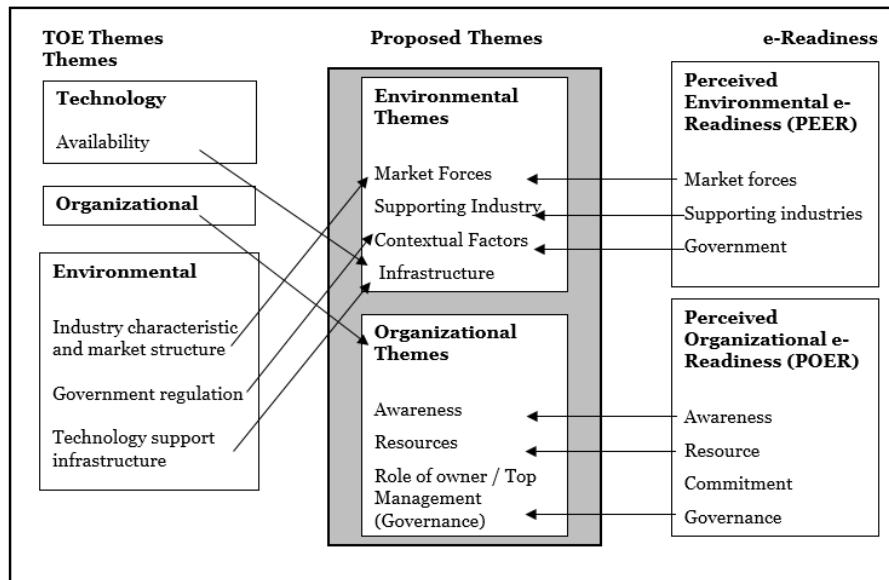

Figure 2. Derivation of preliminary e-tourism adoption themes from the literature

The proposed themes identified in Figure 2 were used to identify relevant factors for e-tourism adoption explored from the literature review. The probable factors identified from the literature review in Table 1 are adapted with relevant themes from Figure 2 and organised in Table 5 below.

Table 5: Themes and factors for e-tourism adoption in Nepal

Theme	Factor	Description
Market Forces	Market readiness and size	Degree to which market is ready for e-tourism adoption
	Pressure from competitors	Pressure to adopt e-tourism because of competitors adopting similar technologies
Supporting Industry	Supporting IT industry	Readiness, capability and status of IT organisations to implement
Contextual Factors	Condition of country	Political situation of country and its effect on e-tourism adoption

	Plan and policies	Plans and policies of government relating to technology
	Incentives from government	Incentives and motivation provided by government for the adoption
Infrastructure	Electricity	Availability of electricity in the country
	Financial	Condition and readiness of financial institutions for e-tourism adoption
	Technological framework	Technology maturity of the country regarding technical resources such as status of internet, digital divide, e-readiness
	Legal framework	National status of the country regarding laws relating to e-tourism
Awareness	Awareness about e-tourism	Owner's knowledge and information about e-tourism and its benefits and usage
Resources	Skill & human resource	Leveraging skills and competencies of human resources as required for e-tourism
	Cost of resource	Initial and operational resources required for e-tourism
	Technological	Technology resources such as hardware, networks and information systems
Role of Owner/Top management	Owner support	The degree of the owner's commitment and encouragement to adopt e-tourism
	Owner's characteristics	Owner's confidence about e-tourism
Other factors (not included in Fig 2)	Culture	Culture, including tradition, ways of doing things
	Language	Technological language and mastery of it
	Perceived benefits	Expected benefits of using e-tourism
	Relative advantage	Degree of perception as better than existing
	Lack of trust	Confidence that e-tourism is safe and trustworthy
	Privacy concerns	Concern about privacy and data misuse from e-tourism

In addition to the seven proposed themes presented in the theoretical frameworks, the highlighted rows in Table 5 lists additional factors that did not fit any of the existing categories from Figure 2. These six factors were categorised into three groups: (i) cultural and language, (ii) perceived benefits and relative advantage, and (iii) lack of trust and privacy concerns. Kshetri (2007) included the factors related to language and culture into one category called cognitive factors. Similarly, Kapurubandara and Lawson (2006) used the term "social-cultural" to include factors related to culture, hence created new factor called 'socio-cultural factors'. Similarly, both perceived benefits and relative advantages are related to the value that the adoption can add to the organisations (Kabanda & Brown 2010), and they are categorised into a new factor termed as a 'Value proposition'. Lastly, a broader category called 'security concern' is created to include both 'lack of trust' and 'privacy concerns'.

The informants also emphasised these issues to be significant in the context of Nepal. Table 6 below summarises content analysis from the interviews as positive or negative perceptions.

Table 6: Summary of factors inferred from semi-structured interviews

Factor	Result	Perception
Infrastructure	Lack of infrastructure (electricity, Internet, payment gateway, etc.) for the adoption	Negative

Market Forces	Encouraging for adoption and expansion as competition grows	Positive
Supporting IT Industry	Poor quality of service from IT vendors although they are competent	Inconclusive
Socio-cultural factors	No direct link with culture and language (as most of the operators are fluent in English)	Neutral
Government	Government commitment is not satisfactory and voiced the opinion that the government should facilitate adoption by providing required infrastructure including laws, and plans	Negative
Condition of country	Political situation of the country has had an effect but not much directly in e-tourism adoption	Mixed
Laws and policies	Not aware of the laws and policies on e-tourism as they consider it to be only an information disseminator. However, have raised concerns around the protection of online transactions and copyright issues	Neutral
Awareness	Quite aware of adoption as they use websites but do not know technical details	Positive
Social Media awareness	Have used mainly for marketing purposes but need further investigation	Positive
Resources	Lack of both human and technological resources	Negative
Security concerns	Unfamiliar with security-related issues but insurance as a protection has been discussed	Inconclusive
Value proposition	Optimistic about how ICT brings benefits to the industry	Positive
Role of Owner or top management	Owners' supportive role has been discussed as one of the key factors for adoption	Positive

The factors from Table 5 and 6 were analysed and checked for similarities. Consequently, in order to accommodate their unique features, new themes were created in the light of extant literature. For instance, Kshetri (2007) suggested that factors related to language and culture fall under cognitive themes whereas Kapurubandara and Lawson (2006) recommended that culture belongs to the 'socio-cultural' aspects. As a result, a new theme named 'socio-cultural factors' was created which includes both cultural and language barriers. Kabanda and Brown (2010) stated that perceived benefits and relative advantages refer to the value gained by organisations from e-commerce adoption. Other studies (e.g. Dwivedi et al. 2009; Rowe et al. 2012; Scupola 2003) also confirmed that e-commerce adoption directly related to value proposition factors with the TOE model. Therefore, a new theme named "value proposition" is created as both relative advantage and perceived benefits are related to value addition. Finally, a broader theme called "security concern" was created to include the remaining factors "security concern and trust" and "privacy concerns" as these are directly related to information security (Kshetri, 2007).

4.1. Hypotheses

The proposed ten themes are grouped under environmental and organisational factors and further divided into sub-factors that are directly relevant to each theme. Based on these themes, 10 hypotheses were formulated in order to test the influence on e-tourism adoption. These hypotheses are listed below:

H1: Lack of national infrastructure negatively influences the adoption of e-tourism

Previous studies (e.g. Kabanda & Brown 2010; Kapurubandara & Lawson 2006; Karanasios & Burgess 2008; Kshetri 2007; Shrestha et al. 2015) have highlighted that infrastructural issues such as the unreliable supply of power are a key concern related to e-tourism adoption. Additionally, slow and inadequate telecommunication and internet technologies followed by low penetration of e-payment cards also contribute to the lower adoption of e-commerce. Furthermore, the need for appropriate laws and policies has also been identified as a major requirement for e-commerce adoption (Dhami 2015; Hunaiti et al. 2009; Shemi 2013; Zaied 2012).

H2: Market forces for tourism industry has a positive influence on e-tourism

It has been highlighted in the past literature that the market size and potential play an influential role in adopting new ICT tools (Ahmad & Agrawal 2012; El-Nawawy & Ismail 1999; Molla & Licker 2005). Likewise, competitors' pressure also motivates organisations to constantly adapt and implement new technologies (Chen & McQueen 2008; Chong & Pervan 2007; Hitt & Brynjolfsson 1997; Simpson & Docherty 2004).

H3: Lack of supporting IT industries negatively influence the adoption of e-tourism

Kabanda and Brown (2010) stated that it is crucial for supporting IT industries to have appropriate readiness in order to facilitate e-commerce adoption as they require good coordination. The lack of adequate support from IT vendors can result in lower e-commerce adoption (Ghobakhloo et al. 2011). However, the owners and

H4: Socio-cultural factors negatively influence the adoption of e-tourism

Participants identified culture as a key factor for ICT adoption and it has also been suggested in the prior studies (e.g. Chong et al. 2009; Saffu et al. 2008; Thatcher et al. 2006) that different cultural norms and values in different countries and regions significantly influences how e-commerce is being adopted. As a result, it is important to test this relationship due to the diverse and rich nature of Nepal's culture (Shrestha et al. 2015).

H5: Country-specific contextual factors discourage SMTEs to adopt e-tourism

Country-specific contextual factors such as government support and incentive are crucial for e-commerce adoption as they encourage people and organisation to introduce new ICT initiatives such as payment gateways and other technology-driven facilities (Al-Weshah & Al-Zubi 2012; Karanasios & Burgess 2008; Cameron & Quinn 2005). The turbulent political situation of a country, lack of government support and incentives (Al-Weshah & Al-Zubi 2012; Kapurubandara & Lawson 2006), therefore, might deter e-commerce adoption and requires further investigation.

H6: Awareness of e-commerce has positively influenced the adoption of e-tourism

Awareness has been highlighted by the participants as a key factor for e-commerce adoption. It also concurs with previous studies (e.g. Hunaiti et al. 2009; Karanasios & Burgess 2008; Kshetri 2007; Molla & Licker 2005; Zaied 2012) that identified awareness as one of the common factors that influence e-commerce adoption.

H7: Lack of resources negatively influences the adoption of e-tourism

Human resources, technological resources, financial resources, and other business resources are fundamental for any ICT project. For instance, Kapurubandara and Lawson (2006) and Al-Weshah and Al-Zubi (2012) suggested that insufficient skill is a major barrier towards e-commerce adoption. Also, among others, the cost of resources is found to be a key factor in e-commerce adoption (Datta 2011; Karanasios & Burgess 2008; Kartiwi & MacGregor 2007; Shrestha et al. 2015; Uzoka & Seleka 2006; Zaied 2012).

H8: Digital security concerns discourage e-tourism adoption

According to Lawrence and Tar (2010), the intangible nature of Internet operations often makes people fearful of being exposed to security issues such as internet fraud. As a result, the establishment of trust and confidence is imperative for e-commerce to work. Buhalis and Jun (2011) also expressed the view that lack of trust might inhibit people from making any transaction. Thus, digital security concern needs to be tested to evaluate the nature of trust and confidence among owners of SMTEs.

H9: Value proposition is positively related to the adoption of e-tourism

Perceived benefit is defined as the expected benefits that can be achieved through practising specific action or behaviour. According to Pearson and Grandon (2004), if an organisation perceive that e-commerce adoption can increase managerial productivity as well as support its strategic decisions, then it may be adopted. Similarly, Rogers (2010) stated that relative advantage is concerned with the degree at which an innovation is perceived as better than the existing system which an organization possesses. Prior studies (e.g. Ahmad et al. 2015; Brdesee 2013; Dwivedi et al. 2009; Grandon & Pearson 2004) also suggested that relative advantage is a key factor for e-commerce adoption.

H10: Owner's support has positively influenced the adoption of e-tourism

Finally, top management support has also been identified in the previous literature as a significant factor that contributes to e-commerce adoption. It has been suggested that the owners' and managers' knowledge of e-commerce followed by a commitment to adopt new technologies do have a considerable impact on the adoption decision (Al-Weshah & Al-Zubi 2012; Kapurubandara & Lawson 2006; Karanasios & Burgess 2008; Shemi 2013).

Based on the proposed hypotheses, we present our research model in Figure 3.
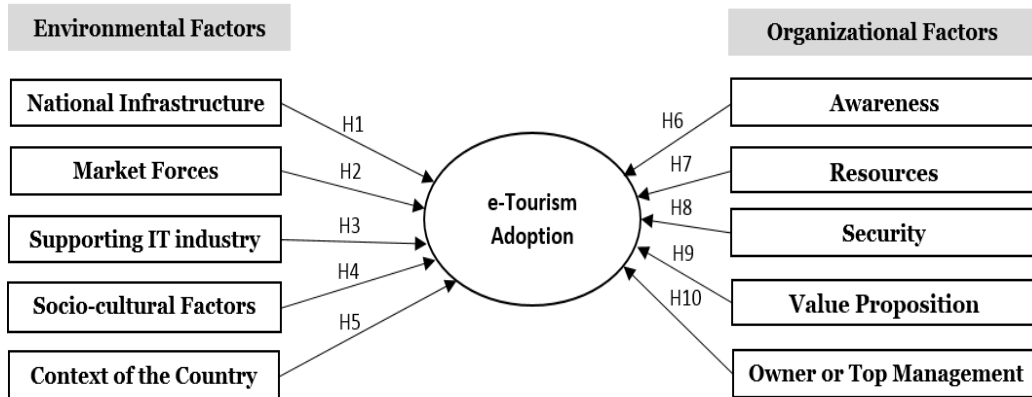
Figure 3. Conceptual model on e-tourism adoption for developing countries

5. Analysis of Results

5.1. Normality Test

The test of the normality is conducted on the data to ensure that data represents the target population and confirms that the data are usable. Hair et al. (2006) assert that the boundary of -3 to +3 is considered for the normality of the data. We have conducted Skewness and Kurtosis of each questionnaire of the survey instrument, they all fall under the boundary, and the data we have collected is normal.

5.2. Reliability Analysis

Cronbach's alpha is typically used to assess the internal consistency of the factors in the research model (Hair et al. 2006). A Cronbach alpha of greater than 0.60 is acceptable and reliable for exploratory research, and greater than 0.70 is recommended for confirmatory research (Straub et al. 2004). The table below shows the reliability of the survey data.

Table 7. Results from the Reliability Test of Survey Data

Environmental Factors	Cronbach α	Organizational Factors	Cronbach α
National Infrastructure	0.759	Awareness	0.851
Market Forces	0.722	Resources	0.842
Supporting IT Industry	0.721	Security & Trust	0.787
Socio-cultural Factors	0.788	Value Proposition	0.760
Context of the Country	0.718	Owner or Top Management	0.723

5.3. Principal Component Analysis

Principal Component Analysis (PCA) is a multivariate statistical technique that analyses the data set with inter-correlated quantitative variables. PCA aims to extract new variables called principal components (linear combinations of the original variables) based on the pattern of similarity among various observed items (Abdi & Williams 2010; Jolliffe & Cadima 2016). The PCA has been conducted to statistically confirm and validate the factors and item grouping, and combine correlated items. Using the PCA, ten constructs, and variables within those constructs were confirmed. Two variables introduced after the semi-structured interviews are shown in **bold** (SCF3_EmpResistance and AWR4_SocialMediaUse) in the table below.

Table 8: Validation of proposed factors using PCA

Principal Component Analysis										
Rotated Component Matrix	1	2	3	4	5	6	7	8	9	10
C1: INF1_PowerSupply				0.746						
C1: INF2_PaymentGateway				0.771						

C1: INF3_TelcomFacilities				0.673					
C1: INF4_Laws				0.814					
C2: MKT1_Size									0.853
C2: MKT2_Competitors									0.871
C3: SPT1_ITVendorCompetent							0.799		
C3: SPT2_ITSupport							0.863		
C3: SPT3_SoftwareLack							0.723		
C4: SCF1_Language					0.782				
C4: SCF2_Culture					0.779				
C4: **SCF3_OwnerResistance**					0.821				
C5: CXT1_GovtCommitment						0.826			
C5: CXT2_Incentives						0.782			
C5: CXT3_PoliticalSituation						0.757			
C6: AWR1_InternetUse	0.795								
C6: AWR2_EcomBenefits	0.857								
C6: AWR3_CompetitorEcom	0.826								
C6: **AWR4_SocialMediaUse**	0.815								
C7: RSC1_EnoughResources		0.868							
C7: RSC2_ITStaffs		0.862							
C7: RSC3_Highcost		0.697							
C7: RSC4_HardwareInternet		0.727							
C8: SEC1_CyberCrime			0.701						
C8: SEC2_LackOfTrust			0.790						
C8: SEC3_DataMisuse			0.753						
C8: SEC4_Privacy			0.736						
C9: VAL1_BelieveAvantage									0.892
C9: VAL2_CompetitiveAdvanta									0.889
C10: OWR1_Support								0.839	
C10: OWR2_BenefitKnowledge								0.879	

5.4. Results from Hypothesis Testing

The factors explored in this study are independent variables, and the adoption of e-tourism is the dependent variable. Logistic binary regression has been used to investigate the relation between the independent and dependent variables. The method used for regression analysis is Enter; the dependent variable of 'initial adoption' has a value of zero (0) and the 'advanced adoption' has a value of one (1). The hypotheses which investigate the effect of various factors on e-tourism have been examined.

Two different methods to assess the model's goodness of fit is employed as shown in Table 9 and 10 below.

Table 9: Hosmer and Lemeshow test

Chi-square	df	Sig.
13.917	8	0.084

Hosmer and Lemeshow test shows that there is a significant difference between predicted and observed data if the result is significant (lower than 0.05). However, the insignificant level (value of 0.084) as shown in the table above, makes the model is acceptable (Heir et al. 2006).

Table 10: Cox & Snell R Square and Nagelkerke R Square (variance)

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
163.355	0.352	0.491

The table above shows that 49.1percent of data variance is explained by the logistic model.

Table 11: Classification table: Observed vs Predicted

		Predicted		
		E-commerce Adoption		Percentage
Observed		0 (initial)	1(advanced)	Correct
e-tourism adoption	0 (initial)	122	12	91.0
	1 (advanced)	19	45	70.3
			Overall Percentage	84.3

The above table shows that percentage accuracy is 84.3 percent which indicates that using this model when we predict the adoption of e-tourism, the model is accurate 84.3%. (Out of 134 initial adopters our model was able to predict correctly 122 respondents SMTEs. Similarly, out of 64 advanced adopters, 45 were predicted correctly. The overall accuracy is 84.3 percent.

The result of the binary regression for the proposed model is presented in Table 9.

Table 12: Binary regression results

Factor	β	S.E.	Wald	df	Sig.(p value)	Exp(B)	Result
Lack of National Infrastructure	-.486	.236	4.243	1	.039 (<0.05)	.615	Supported
Market	.651	.255	6.525	1	.011 (<0.05)	1.918	Supported
Supporting IT Industry	.411	.251	2.674	1	.102 (>0.05)	1.509	Not Supported
Socio-cultural	.029	.221	.017	1	.896 (>0.05)	1.029	Not Supported
Context of the Country	-.436	.201	4.711	1	.030 (<0.05)	.646	Supported
Awareness	.525	.259	4.118	1	.042 (<0.05)	1.691	Supported
Lack of Resources	-.997	.269	13.765	1	.000 (<0.05)	.369	Supported
Security Concerns	-.102	.257	.158	1	.691 (>0.05)	.903	Not Supported
Value Proposition	.889	.283	9.890	1	.002 (<0.05)	2.433	Supported
Owner or Top management	1.117	.318	12.351	1	.000 (<0.05)	3.055	Supported

The significance value ($p<0.05$) indicates that the factors in the model are significant. After analysis, three environmental factors (lack of infrastructure, market size and lack of support from the government from the context of the country) and four organizational factors (awareness, lack of resources, value proposition and top management support) were found to be significant in e-tourism adoption by SMTEs of Nepal. The two environmental factors (supporting IT industry and socio-cultural factors), as well as one organizational factor (security concern), were found not to be significant.

The results show that infrastructural issues including lack of electricity, technological resources, financial infrastructure and laws negatively influence the adoption decision. Similarly, contextual factors such as lack of government policies and incentives, the condition of the country are also found to be affecting adoption negatively. The awareness of e-tourism and social media, as well as market forces, are found to be encouraging e-tourism adoption. Perceived benefits under the value proposition category are also found to be encouraging adoption decisions. The findings further revealed that the owner or top management support is also significant. Finally, insufficient resources in organizations is found to be negatively linked with e-commerce adoption. Other factors - the influence of supporting IT industry, socio-cultural issues and security concerns - were not supported.

6. e-Commerce Adoption Model

Based on the results from the tested hypotheses, an e-tourism adoption model for Nepal is proposed. The statistically significant factors are presented as motivators and barriers for e-tourism adoption in Nepal in Figure 4.

Motivators for e-tourism adoption are presented at the right-hand side in green. The barriers to e-tourism adoption are represented in orange at the left-hand side. The model demonstrates that primary barriers to e-tourism adoption in Nepal are related to external factors (i.e. lack of infrastructure, contextual factors) and organizational factors (i.e. lack of resources). On the other hand, key motivators from the perspectives of the external environment include market forces, and from the perspective of the organization, awareness, value proposition and top management role.

The initial and advanced adoption maturity levels are differentiated based on the balance of the e-tourism adoption factors that are represented as the motivators and the barriers. The position where the motivators are on the decline and the barriers are on the rise represents the initial e-tourism adoption maturity level; and vice versa for the advanced e-tourism adoption maturity level. A streamlined e-tourism adoption in Nepal can be facilitated by leveraging the motivators and minimising the impact of barriers. These processes are proposed in the model by adopting a two-level maturity progression: from an initial adoption level to an advanced adoption level. This two-level maturity progression can highlight the e-tourism adoption for SMTEs from an initial baseline to a desired ideal level. While the barriers inhibit tourism organizations to move from initial to advanced levels, the motivators can assist in progressing to the advanced level.
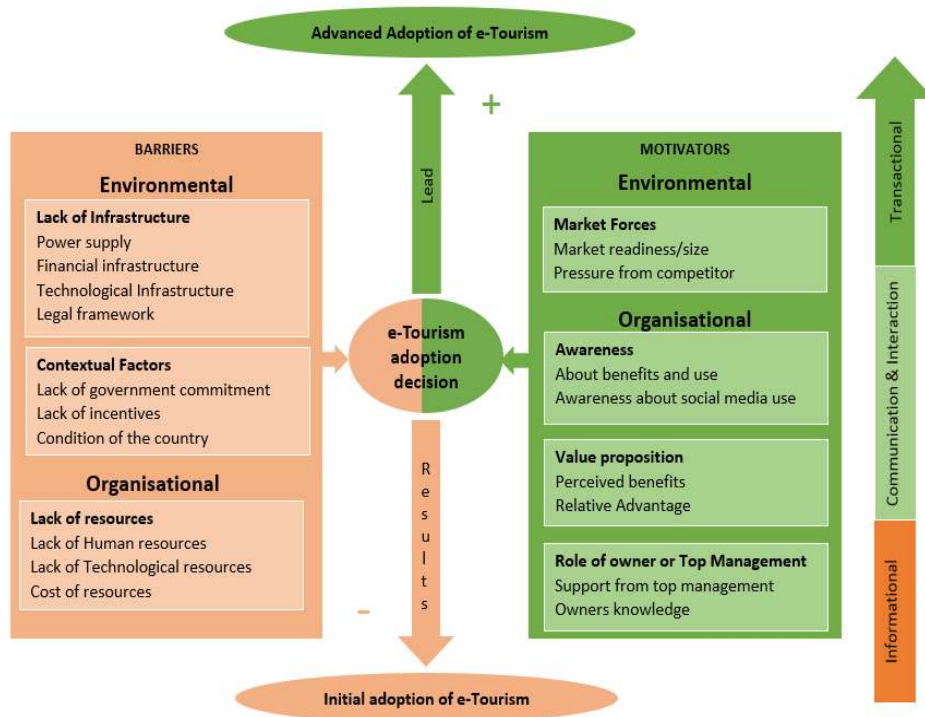

Figure 4. e-Tourism adoption model for Nepal

The transition from initial to advanced level of e-tourism adoption is depicted by three stages of e-tourism adoption advancement stages: informational; communication and interaction; and transactional in Figure 4. At the informational stage, e-tourism is adopted at a primitive level (e.g. a website for displaying static information only) and the barriers at this stage are large. As the advancement elevates to the communication and interaction stage, two-way communication between the SMTEs and the tourist can be enabled. The use of the dynamic website/mobile apps with search and contact facilities followed by social media support are key features at this stage. The highest advancement is characterized as the transactional e-tourism stage where SMTEs streamline their operations and can engage during the entire customer journey - from initial search to bookings to post-service delivery activities such as feedback and complaints handling. The motivators at this stage are highly effective with little or no existence of barriers.

This model offers a pathway for SMTEs to realise the value proposition of improving their tourism services through e-tourism adoption. Since most of the SMTEs currently operate at the initial adoption level, the journey towards reaching the advanced adoption level can be mapped utilising this model. In addition, policymakers and tourism practitioners can use this model to understand the effects of e-tourism motivators and barriers in order to deliver better services powered by e-tourism adoption.

7. Implications to Practice and Policy

The model presented in this study (Figure 4) highlights the key barriers and motivators for e-tourism adoption by SMTEs in Nepal. The two-level maturity of e-tourism adoption, examples of e-tourism advancement stages, and the adoption factors presented in the model can provide significant implications to practice and policy. Concerned

stakeholders can utilise the model in mitigating the identified barriers and taking advantage of the motivators. Since the model can be used by SMTEs to demonstrate a transition from an initial level to the advanced maturity level of adoption, it offers broad implications for relevant stakeholders (Buhalis & Jun, 2011).

Firstly, SMTEs can identify their existing maturity level of adoption (initial or advanced) based on the model. Understanding their current level of adoption will provide greater understanding in regard to the nature of e-tourism development plans required for the future. In addition, by identifying the key motivators and barriers, SMTEs can determine whether these factors are internal or external to the organisation and help them to conduct a transparent SWOT analysis (Goranczewski & Puciato, 2010). Such analyses can provide significant benefits of adopting e-tourism and mitigating risks associated with e-tourism adoption for SMTEs in developing countries such as Nepal.

Secondly, government and relevant policy-making bodies also can benefit from this model as it highlights the positive and negative effects derived from the e-tourism related factors. As a result, it will allow law enforcement offices or judicial bodies to construct relevant legislation in accordance with the identified factors, as well as maturity levels (Kabir, Jahan, Adnan & Khan, 2012). Governmental bodies can direct their limited resources based on specific issues or the maturity levels of e-tourism adoption.

In addition, the tourism associations can assist its member SMTES in a transparent manner based on their maturity levels of e-tourism adoption. The associations can prioritize their efforts according to the identification of barriers at each level to provide relevant support (Fodor & Werthner, 2005). For example, in order to address the concerns for early adopter SMTEs, the association can arrange related awareness programs to minimise this barrier. Similarly, by identifying the areas where the relevant association can help, the model can also be used to foster collaboration with the government and learning among other stakeholders (Fermoso, Mateos, Beato & Berjón, 2015).

Furthermore, IT service providers can study this model to meet the relevant e-tourism requirements for e-tourism adoption. IT companies can focus on specific technical areas to assist e-tourism initiatives. The understanding of the barriers and motivators will enable them to provide better infrastructure support towards achieving adequate e-tourism adoption and enhance the quality homogeneous, for example, intelligent search for tourism services using recommender systems (Agarwal et al., 2013).

Finally, international tourism service providers such as airlines or hotel chains can use this model to understand the current e-tourism landscape of a country to deliver tourism services, for example, intermediaries services by airlines providers (Buhalis & Licata, 2002) and determination of ideal hotel characteristics for the destination (Crnojevac, Gugić, & Karlovčan, 2010). Likewise, individual tourists can use this model to assess various e-tourism services and make an informed decision regarding service quality in the tourism industry of developing countries (Steinbauer & Werthner, 2007), such as the case presented for Nepal.

8. Limitations and Future Direction

Our initial qualitative study draws on collaborative engagement with high-level tourism stakeholders in Nepal while conducting interviews and collecting data. We focused on the socially constructed reality that is presented by the interviewees to propose an initial research model. In doing so, while we are focused on the e-tourism adoption challenges in the context of Nepal, our findings lack a heterogeneous view on the wider perspectives by other stakeholders in the e-tourism ecosystem – commercial tourism service providers, ICT policymakers/ service providers and tourists themselves. Furthermore, to ensure validity and reliability, our quantitative survey attempted to test the factors for e-tourism adoption, again focused on the views of the SMTEs only. We encourage other researchers to expand the generalizability of our proposed model given that we worked with a fairly homogeneous sample in terms of our sample.

This study provides a Nepalese perspective on the developing countries and an understanding of e-tourism in SMTEs only. On a geographical dimension, this research was limited to the region of Nepal where the predominant tourism services relate to adventure tourism such as trekking. The concentration of Nepal's tourism offering on the trekking business may limit discussions on e-tourism adoption with a limited view towards trekking services. Moreover, the geographical limitation may inhibit the generalizability of our key findings to other developing countries because of the unique context of Nepal, which includes all SMTEs involved in this research study. This might lead to a potential bias in our findings. For this reason, empirical investigation into different developing countries may be needed for more generalized findings. Future research directions could build on this research study by investigating additional critical factors that might be used to understand e-tourism adoption from domains beyond dominant tourism services and political contexts. Also, it would be interesting to apply the e-tourism adoption model to other countries and

different types of tourism services – such as ecotourism, cultural tourism, and luxury tourism in developing countries. Further, the findings may also be applied to different regional settings in a single large developing country such as India and Brazil, and studies on those contexts with the proposed factors can be another interesting future research consideration.

9. Conclusion

The primary objective of this research was to develop and propose an e-tourism adoption model for the highly promising tourism destination that has not yet reached its potential due to the impending challenges of developing countries, as presented with the case of Nepal. The validated research model offers the opportunity for SMTEs in Nepal to identify key barriers and motivators of e-tourism adoption by effectively addressing the challenges associated with it. Using a mixed-method approach, data were collected by undertaking interviews with tourism representatives and surveys among SMTEs. This research expands scholarly knowledge about the critical factors related to the e-tourism adoption in developing countries. The key factors that influence e-commerce adoption by SMTEs in Nepal include national infrastructure, size of the market, support from the government, awareness, ICT resources, value proposition and support from top management. The proposed model highlights these factors from either environmental or organizational perspectives.

While both tourism and e-commerce adoption has been extensively researched in the academic domain, this study offers a unique insight in the context of Nepal as few studies have highlighted the significance of e-tourism adoption in developing countries. Additionally, the validated model provides a pathway for the policymakers, as well as SMTEs, to efficiently address the issues related to e-tourism adoption in the country and act accordingly. The identification of initial and advanced levels of adoption maturity in the model benefits SMTEs in identifying their priorities and utilising their resources to minimise the barriers and take advantage of the motivators. Nevertheless, genuine intervention from the government with regard to incentives, resource capabilities, and national infrastructure is still a prerequisite for effective e-tourism adoption.

We posit that our research will provide critical insights for SMTEs that are planning to adopt e-tourism. The two-level e-tourism adoption maturity levels offer a simple binary consideration for progression towards eliminating barriers and promoting motivators towards effective use of e-tourism services by SMTEs for Nepal. This research lends considerable support to the case for identifying and understanding the impact of e-tourism factors, not only in Nepal but also within other countries that possess similar technologically limited economies. To this extent, it is possible to generalize this research to other countries that face similar and increasing calls for e-tourism. Indeed, the results obtained from this research can be used as a foundation for future research in the area of e-tourism in developing countries. The findings of this research study are expected to assist governments in developing countries in planning and implementing e-tourism to achieve their strategic objectives of economic progress with the help of tourism.

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