Research Article

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The Diffusion of E-marketing in Tourism Businesses of Ethiopia: An Empirical Investigation of Organisational E-readiness Perspectives

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Abstract: The study aims to investigate the impact of organisational e-readiness on e-marketing diffusion in tourism businesses of Ethiopia. The research is based on a questionnaire survey and uses Structural Equation Modelling to test the conceptual model that extends technology diffusion theories. The study validates the conceptual model extended from Perceived Organisational E-readiness, Innovation Diffusion Theory and Technology Adoption Model to explain e-marketing diffusion. The findings indicated that perceived organisational e-readiness significantly affects e-marketing diffusion. The result implied that technology diffusion theories such as Technology Adoption Model and perceived organisational e-readiness were valid in demonstrating e-marketing diffusion. Though ease of use affected e-marketing diffusion, the impacts of compatibility and relative advantage were not significant; and thus, the indirect effect of organisational e-readiness on e-marketing diffusion was not significant. The finding also reinforces the necessity of a multilevel model to explain e-marketing diffusion in developing countries.

Keywords: Perceived Organisational E-readiness (POER); Innovation Diffusion Theory (IDT); Technology Adoption Model (TAM); E-marketing diffusion; Tourism businesses; Ethiopia

1 Introduction

The development of internet technology definitely has unprecedented implications in travel and tourism. Its momentous growth has become instrumental in solving the information and communication functional needs, and it has become a transformational driver that affects the structure, operation and management of tourism businesses (Agag & El-Masry, 2016; Marcin & Stanienwsk, 2016; Sigala, 2018). With the same token, Xiang, Magnani and Fesenmaier (2015) and Xiang et al. (2014) underscored how commercialisation of the internet changed the nature of society and laid down important milestones in facilitating unremitting technological innovations, fostering new business practices and restructuring the competitive strategies. More importantly, the economic power of the internet has grown and the changes have surmised with new concepts such as ‘Long Tails’ by Anderson (2007) and ‘Wikinomics’ by Tapscott and Williams (2008). More importantly, the new discourse about the impacts of internet on travel and tourism was primarily noted by Poon (1993), Sheldon (1997) and Werthner and Klein (1999). These scholars have reflected on how the internet has brought a new thinking in travel and tourism and proposed normative view on how the sector should progress. Besides, Buhalis and Law (2008), Rocha and Victor (2010) and Kim, Chung and Lee (2011) suggested that the internet has created ubiquitous environment for all tourism businesses without compromising the size, complexity and place and re-engineered the marketing dynamics and conventional marketing rules.

The link between internet utilisation and tourism, both growing, has captured tourism and hospitality scholars. For instance, Mohseni et al. (2018) and Li, Pearce and Low (2018) emphasised that corresponding to the growth of internet, many people are widely using it to search information, prepare for trip, purchase products and display post-purchase behaviour. Sigala (2018) highlighted how the internet fundamentally altered consumer

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behaviour, decision-making process, design and consumption of tourism products. These studies clarified how tourists (consumers) have become co-designers, co-marketers, co-advertisers, co-promoters and co-distributors of tourism experiences and how the consumers have become micro-entrepreneurs and techno-humans.

The uniqueness of tourism as being information-intensive and tech-savvy implies that the internet is far better than any other available technology to provide information relevant to tourism and hospitality marketing (Maswera, Dawson & Edwards, 2008; Berné et al., 2015). The internet with its interactivity helps customers to get access to quick and precise information about any destination, accommodations or activity. Moreover, Stiakakis and Georgiadis (2011) and Standing, Tang-Tay and Boyer (2014) bequeathed how the immediate information has become vital to make purchase decisions.

Given the competitive nature of the sector, tourism businesses have shown an increasing desire to accept and implement e-marketing. However, information system researches have received relatively limited and fragmented coverage in sub-Saharan Africa (Mbarik et al., 2005). Regardless of the growing trends of conducting e-marketing-related studies in least developed countries, it is realised that there was few studies conducted in Ethiopia addressing the problem of e-marketing diffusion. The studies conducted by Admassie and Taye (2007), Fekadu (2006), Adam (2012), Elizabeth, Lemma and Mariye (2010) and Demeke and Olden (2012) generally revealed that internet-based marketing is at its infant stage. These studies restated lack of legal frameworks for electronic commerce, monopolisation of telecommunication sector, limited internet service and continuously failing but expensive connection as the major factors affecting new technology diffusion. Hence, the objective of the study is to investigate the impact of organisational e-readiness on e-marketing diffusion in tourism businesses of Ethiopia.

2 Literature Review

The research community, academics and policymakers have gained a lot of interest in the diffusion of new technologies and internet. For the sake of better understanding of e-marketing diffusion, a number of theoretical models were proposed (El-Gohary, 2012). These models provided the basis for business leaders, researchers and academics to predict and explain the major factors affecting ICT and internet diffusion in tourism businesses. Furthermore, the increasing of the research community has motivated the

research on ICT and internet diffusion and its successful application in e-marketing context (Abou-Shouk, Lim & Megick, 2016).

But since e-marketing is a new philosophy and modern business practice, the emerging technology diffusion theories are more general in illustrating the diffusion of new technologies in tourism businesses. It is still a relatively new concept for tourism businesses operating in developing countries that have limited resources, poor infrastructures and strong competition and cannot afford to make wise investment (El-Gohary, 2012). More importantly, a lot of researches were conducted in western perspectives primarily due to the high use of internet. Nevertheless, the findings and theoretical models tested and validated in developed countries may not be applicable to developing countries (Ahmad et al., 2015). This is because the businesses in developing countries face challenges different from developed countries and they differ greatly in accepting and benefiting from new technology. Therefore, since different factors affect new technology diffusion, the research results identified in developed world may not be generalisable to the developing countries (Dewan, Ganley & Kraemer, 2010).

On the other hand, tourism and hospitality literatures have used many theories and models to investigate and interpret the diffusion of new technologies (Abou-Shouk, Lim & Megicks, 2016). However, most theories explain the behavioural intention to technology is a key to diffusion. According to Agarwal and Prasad (1998), King and Gribbins (2002) and Molla and Licker (2005), new technology diffusion models most often focussed on individuals' technology acceptance than that of the entire organisation. But organisation technology diffusion is more complex and sophisticated, and has become the concern of the top management than individuals and has claimed to fall under mandatory setting. Organisations usually accept new technology for organisational benefits than individuals.

Besides, organisations fall under different pressures that can possibly force them to accept new technology than individuals. For instance, tourism and hospitality industry comprises several interrelated sub-sectors such as travel agents, airlines, hotels, car rental agencies and tour providers (Dhaigude, Kapoor & Ambekar, 2016). The businesses of these sub-sectors are bound to accept change through market pressures such as competition, customer demand and technological change. Thus, understanding the technology diffusion becomes more complex than merely exploring the perceptual characteristics of innovation. When we see e-marketing, it occurs as a result of diffusion of new technology that changes most marketing

functions. Hence, it is sensible to consider e-marketing as the acceptance of new technology by a business organisation (Shaltoni & West, 2010; El-Gohary, 2012). Moreover, Molla and Licker (2005), Ahmad et al. (2015) and Abou Shouk, Lim and Megicks (2016) suggested that businesses firms in developed and developing countries differ in the acceptance of new technology because the managerial, organisational and environmental contexts of businesses in developing countries face substantial risks in accepting new technology than the businesses in developed countries.

2.1 Theoretical Models and Hypotheses

2.1.1 Perceived Organisational E-readiness

The pragmatic understanding of perceived organisational e-readiness (POER) is seen as the State of being attained prior to the start of a certain activity in relation to psychological, behavioural and structural readiness (Lokuge et al., 2018). The theory of POER recognised the preceding conditions for change as the precursor for successful acceptance and assimilation of complex technological changes. The idea of POER circumscribes the organisational members' change commitment, change efficacy and the state of being psychologically and behaviourally ready to take action (willing and able). This means organisations accept, assimilate and exploit innovations if the changes are perceived necessary (willingness) and if they have required capabilities (ability) (Molla & Licker, 2005; Lokuge et al., 2018).

Molla and Licker (2005) defined organisational e-readiness in terms of the organisations' internal willingness, preparedness and readiness to adopt e-commerce. This definition is more reflective of firms' technological resources and capabilities, the level of use of innovative knowledge and IT skills, and financial resources at the disposal of firms to adopt new technology (Saffu, Walker & Hinson, 2008; Ahmad et al., 2015). Leung et al. (2015) and Abou-Shouk, Lim and Megicks (2016) suggested that organisations without such a capacity lack readiness and will less likely accept new technologies.

The discourse about POER is disseminated to support how the availability of employees with technical expertise and ICT knowledge (human resources e-readiness), firms' technological resources (technological e-readiness), financial resources at the disposal of the firms (financial e-readiness), top managements' attitude, enthusiasm, support and commitment, and strategic perspectives and philosophies of the organisations affect adoption of

new technology (Saffu, Walker & Hinson, 2008). In their empirical investigation on the perceived e-readiness of e-commerce adoption in developing countries, Molla and Licker (2005) found that since the business firms of developing countries lack financial, technological and human resources, they have very limited experiences of doing businesses electronically. Thus, POER has become the critical factor in hindering the acceptance and institutionalisation of new technologies. Furthermore, Lokuge et al. (2018) noted that despite the proliferation, businesses are struggling to reap the benefit of new technologies because they have feeble organisational-level readiness. This argument leads to hypotheses that are given below.

Hypothesis 1: POER significantly affects e-marketing diffusion in tourism businesses of Ethiopia.

Molla and Licker (2005) realised that the diffusion, acceptance, assimilation and routinisation of new technology were affected by the organisations' earlier state in human, technological, financial and managerial readiness. This implies business firms that achieved prior readiness were less likely to face complexity in accepting new technology. This argument helps to present the following hypothesis.

Hypothesis 2: The better the prior state of organisational e-readiness, the better the e-marketing ease of use.

Rogers (2003) noted that new technologies perceived consistent with the existing values, past experiences and needs of the potential adopters are more compatible for acceptance and assimilation. This means organisations that have established organisational culture for the acceptance and experience of new technology and have developed the need for the new technology would likely have a better perceived preparation than those with no experience, needs and organisational culture. This means the better the POER, the better the compatibility of new technology with the organisational values, cultures, working habits, technological infrastructures, and trading partners' and customers' ways of doing business. The study presents the following hypothesis.

Hypotheses 3: The better the POER, the better the compatibility of e-marketing to organisational values, cultures, working habits and technological infrastructures. In his Innovation Diffusion Theory (IDT), Rogers (1995, 2003) underlined that when organisations perceive that the new technology provides better financial and non-financial benefits, they accept it faster. But Rogers's idea seems to overlook the effects of POER on the perceived advantage

of new technology diffusion. Thus, the study attempts to see how POER affects e-marketing relative advantage.

Hypothesis 4: POER affects e-marketing relative advantage.

2.1.2 Technological Characteristics

2.1.2.1 Ease of Use

A lot of technology diffusion studies indicated ease of use and usefulness as the most widely studied antecedents of diffusion of new technologies. Nevertheless, ease of use is tested as the most parsimonious variable to predict the behavioural intention of businesses to accept new technology under mandatory setting. Moreover, the explanatory power of ease of use to understand the behavioural intention of hospitality organisations to accept new technology was also validated by Huang et al. (2017), Aye (2015), Casalo, Flavian and Guinaliu (2010) and Agag and El-Masry (2016). These researchers confirmed that ease of use significantly predicts the diffusion of new technology in tourism and hospitality organisations. This argument has provided the following hypothesis.

Hypotheses 5: Ease of use is positively related to e-marketing diffusion in tourism businesses of Ethiopia.

2.1.2.2 Compatibility

This study understands compatibility in terms of suitability and fitness of e-marketing for the current business processes, technological infrastructures, organisational culture, and customers' and business partners' ways doing of business. In this case, previous studies on new technology diffusion in tourism and hospitality businesses revealed that acceptance and implementation of new technology is significantly affected by compatibility (El-Gohary, 2012). Thus, the new technology that is perceived to be compatible with the organisational virtues such as socio-cultural values and beliefs, previously introduced ideas and needs of the customers is accepted faster. An idea that is more compatible is less uncertain to the potential user (Rogers, 1995, p. 240). Therefore, the present study hypothesises as follows.

Hypothesis 6: Compatibility significantly and positively affects e-marketing diffusion in tourism businesses of Ethiopia.

2.1.2.3 Relative Advantage

The nature of the innovation largely determines what specific type of benefits (such as economic, social and others) it will bring to the adopters. Numerous empirical findings supported the significant relationship between new technology diffusion and relative advantage in tourism and hospitality organisations. For instance, Leung et al. (2015) found that independent hotels in Hong Kong accepted ICT because they perceived the acceptance of ICT enhances operational efficiency, reduces operational costs and improves customer service experiences and marketing efficiency. Hence, the authors put forward the following hypothesis.

Hypothesis 7: The perceived relative advantage is positively and significantly related to e-marketing diffusion in tourism businesses of Ethiopia.

In addition, all new innovations and ideas do not diffuse quickly and easily. Some may diffuse very quickly and easily, while others do not. In this regard, several empirical studies revealed that the perceptual characteristics of innovation mediated the relationship between organisational factors and new technology diffusion (El-Gohary, 2012; Ekdale et al., 2015). For example, El-Gohary (2012) highlighted the direct and indirect effects of internal organisation factors on e-marketing adoption in small tourism organisations of Egypt. According to him, innovation attributes significantly carried the influences of internal organisational factors on e-marketing acceptance. This argument helps to propose the mediation hypotheses as follows.

Hypothesis 8: Ease of use carries the significant influence of organisational e-readiness on e-marketing diffusion.

Hypothesis 9: Compatibility mediates the relationship between organisational e-readiness and e-marketing diffusion.

Hypothesis 10: Relative advantage carries the significant influence of organisational e-readiness on e-marketing diffusion.

Hypothesis 11: The effect of organisational e-readiness on e-marketing diffusion is mediated by innovation attributes.

Thus, based on the above-hypothesised relationships, the authors extended POER, Technology Adoption Model (TAM) and IDT models and applied the new model in e-marketing diffusion research. Accordingly, the main constructs of interest for this research were ease of use

Figure 1: Research model

(TAM), relative advantage and compatibility (IDT) and POER, as shown on Figure 1.

3 Research Methodology

3.1 Research Design, Sampling Technique and Data Collection

This study is normative and its main aim is to contribute to the better understanding of e-marketing diffusion. Epistemologically, the study is positivist. Regardless of the research design, to identify the specific variables, concepts, theories and models that are distinctive to this research, exploratory research was used at its early stage while descriptive research design was predominantly applied in this study.

Since this study utilised SEM to test the proposed structural model and hypotheses, sample selection was done based on the guidelines suggested by Anderson and Gerbing (1988), Hu and Bentler (1999) and Hair et al. (2010). The sample size determination was guided by the estimation technique (maximum likelihood estimation [MLE]), respondents to parameters ratio and the general recommendation for the appropriate sample size required for SEM. Considering this as a guide and realising the limited resources, and also considering the accuracy and

representativeness of the sample, the researcher adopted Aaker and Day's (1986) sample determination formula since it takes into account the confidence level and confidence interval, sampling error and population characteristics:

$$S = Z \sqrt{\frac{P(1-p)}{n}} \sqrt{\frac{N-n}{N-1}}$$

where Z = confidence interval = 1.96, S = sample error (5%) = 0.05, P = ratio of population characteristics (50% in social sciences) = 0.5, N = total population and n = sample size. The measurement scales were adapted from established scales developed from previous studies and new scales were also developed by the researchers. The measures of IDT and TAM were adapted from Moore and Benbasat (1991). The measures of POER were developed based on Molla and Licker's (2005) study, whereas the e-marketing diffusion measures were partially developed and adapted from El-Gohary (2012). The questionnaire survey consisted of multiple, dichotomous, open-ended and scale questions. The multiple, dichotomous and open-ended questions mainly aimed to probe the general background information of tourism businesses. The multiple questions were prepared to sort out the category of tourism businesses. The dichotomous questions primarily aimed to probe about the availability of company website,

internet connectivity and the status of e-marketing practices. The scale questions were principally prepared to address the major constructs of the research model. Most of the questions used seven scales to provide a series of statements to which the participant indicates the level of agreement or disagreement. The final questionnaire consisted of e-marketing diffusion, ease of use, compatibility, relative advantage and organisational e-readiness with human resource e-readiness, managerial e-readiness and technological e-readiness sub-dimensions. A pilot test was conducted on July 2017. The test was designed in two phases. In the first phase, the questionnaires were sent to two academics and four industry practitioners for comment and critical review. Most comments extracted were about the comprehension of phrases used in the questions, item sequencing and wording of the questions. Based on these suggestions, the items were improved and they underwent actual pilot testing. In the second phase of the pilot test, 50 respondents were recruited from hotels and tour and travel businesses. The data gathered from the pilot survey were compiled and examined. The results of the pilot survey helped to improve the original questionnaires. The final questionnaires were translated into Amharic. The translation was done based on international standards. The translation was made by a bilingual scholar of tourism marketing, the author retranslated into English and both versions were compared. The final survey questionnaires were targeted on 561 tourism businesses, from which a total of 340 questionnaires were collected (191 responses were from star-rated hotels, international and local brands and 149 were from tour and travel agency businesses). Though 340 self-administered questionnaires were distributed, 295 usable questionnaires were collected from October 2017 to June 2018. The data were analysed using descriptive statistics and SEM.

4 Results

4.1 Background Information of Tourism Businesses of Ethiopia

The survey done on tourism businesses showed that 60% of the participants were from hotels and 42% were from travel and tour operation businesses. When we see specific participation, the participants from tour operators and travel agency constituted about 24.4%, followed by those from three star hotels (19.3%), four star hotels (16.6%), tour operators (13.2%), two star hotels (9.8%), five star hotels (7.8%), one star hotels (4.4%) and travel

agency (4.4%). With regard to individual participants, it was found that almost 85% of the respondents were managers (marketing, sales, reservation and general managers). Also, the remaining 15 participants were owners and employees who were active in conducting e-marketing.

The findings also indicated that 98% of tourism businesses have company websites and are connected to the internet system. In terms of the practices of e-marketing, 92.9% of them have the experience of at least one form of e-marketing. Nevertheless, the results of the adopters' categories indicated that 24.7% (73) of them accepted e-marketing 10 years ago, 22% (65) accepted it between 5 and 10 years and 53.3% (157) adopted it between 1 and 5 years. This means in spite of the boom in technology-based marketing in travel and tourism since the 1990s, Ethiopian tourism businesses are laggards in accepting e-marketing.

Moreover, in terms of the specific implementation of e-marketing forms, 90.5% of the tourism businesses used e-mail marketing, 68.2% used the company websites to market their products and services and 60.02% used social media as the marketing medium. But the utilisation of mobile, blog, and YouTube and other user-generated contents as a marketing tool was low (about 35.3%, 21.7% and 18%, respectively).

4.2 Evaluation of the Measurement Model

SEM was used to analyse the research model through four steps: (1) assumption of multivariate analysis; (2) exploratory factor analysis (EFA) with varimax rotation to determine the underlined dimensions of the organisational e-readiness, innovation attributes and e-marketing diffusion; (3) examination of the measurement model with first- and second-order confirmatory and (4) testing of the causal and hypothesised relationships in the structural model.

The assumptions of multivariate analysis were checked. First, multicollinearity statistics were checked by Pearson's bivariate correlation. In this case, the magnitudes of the correlation coefficients were less than 0.80. Multicollinearity and singularity of the measurement model were also checked by examining the determinant score and squared multiple correlations. The determinant score was above 0.00001. The variables that had squared multiple correlations close to 0.0 and 1.0 were removed because they were demonstrating the problem of singularity and multicollinearity, respectively, as per the recommendation of Yong and Pearce (2013) and Field (2013).

To test the normality of residuals, histogram and normal probability plot were employed. When we looked at the histogram and probability plot of data, the histogram was symmetrical and approximately bell shaped. To determine whether univariate normality exists or not, the researchers examined the distribution of each observed variable for skewness and kurtosis. Thus, the absolute values of Z-scores were >1.96 and significant at $p < 0.05$, 2.58 and significant at $p < 0.01$, and >3.29 and significant at $p < 0.001$ and the data looked to fall in the normal distribution. This is consistent with the suggestions made by Hu and Bentler (1999), Hoyle (1995), Byrne (2010) and Field (2013). Moreover, the departure of each observation from multidimensional space from the mean of the observation was checked. Few observations departed from the general distribution in a multidimensional space and the values of D^2/df were within the limit (3–4). These values are acceptable values of Mahalanobis D^2 recommended by Hair et al. (2010).

EFA was performed to consolidate variables, generate new hypotheses about the underlying theories, establish interpretable factors and identify a set of multiple indicators. Thus, principal component analysis (PCA) was conducted on 29 items with varimax rotation. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy for the analysis was 0.898. This statistics is greatly acceptable (Field, 2013), and all KMO values for the whole constructs were >0.80 (meritorious), which is well above the acceptable limit of 0.5 (Field, 2013). Bartlett’s test of sphericity $\chi^2(630) = 7866.450$, $p < 0.001$ indicated that the correlations between items were sufficiently large. Preliminary analysis was performed to obtain Eigenvalues for each dimension in the data. The seven dimensions with Eigenvalues >1 were extracted. Approximately 71.665% of the variance is explained by the seven components as shown in Table 1.

After excluding those items whose alpha result was below 0.07 and loading was below 0.4 and that were cross-loaded to more than two factors, seven items were loaded to compatibility, seven to e-marketing adoption, seven to top management commitment/support, five into relative advantage, four to ease of use, three into technological e-readiness and three into human resource e-readiness.

In light of the satisfactory results of EFA, confirmatory factor analysis (CFA) was performed using AMOS 23.0. All the scales were subjected to CFA (first and second order) to test the psychometric properties of the measurement scales. The second-order CFA was used to infer broader-level generalisation and to obtain different perspectives from the data set (Gorsuch, 1983; McClain, 1996, Thomson, 2004).

Table 1: Rotated component matrix

Items	Components						
	1	2	3	4	5	6	7
CM2	0.823						
CM1	0.804						
CM3	0.794						
CM5	0.787						
CM4	0.767						
CM7	0.745						
CM6	0.724						
TM5		0.876					
TM6		0.863					
TM3		0.816					
TM4		0.807					
TM1		0.787					
TM2		0.753					
TM7		0.668					
EM4			0.874				
EM3			0.843				
EM1			0.838				
EM5			0.790				
EM2			0.730				
EM6			0.728				
EM7			0.549				
RA3				0.787			
RA2				0.785			
RA4				0.743			
RA5	0.426			0.689			
RA1				0.682			
EU2					0.816		
EU3					0.812		
EU1					0.807		
EU4					0.755		
IT5						0.849	
IT4						0.830	
IT3						0.818	
HM1							0.792
HM2							0.740
HM3		0.409					0.715

Source: Authors’ computation from field survey data

Table 2: Results of measurement model evaluation

Paths			Standardised coefficients (first-order CFA)	Standardised coefficients (second-order CFA)	CR	AVE	Cronbach's alpha
Compatibility					0.908	0.665	0.928
CM1	<---	CM	0.733	0.734			
CM3	<---	CM	0.781	0.781			
CM5	<---	CM	0.914	0.913			
CM4	<---	CM	0.883	0.883			
CM6	<---	CM	0.750	0.751			
Top management commitment					0.922	0.747	0.921
TM5	<---	TM	0.881	0.882			
TM6	<---	TM	0.882	0.883			
TM3	<---	TM	0.867	0.866			
TM4	<---	TM	0.825	0.826			
E-marketing diffusion					0.910	0.718	0.902
EM4	<---	EM	0.900	0.901			
EM3	<---	EM	0.827	0.825			
EM1	<---	EM	0.827	0.826			
EM5	<---	EM	0.835	0.833			
Relative advantage					0.916	0.784	0.989
RA3	<---	RA	0.940	0.94			
RA2	<---	RA	0.864	0.864			
RA4	<---	RA	0.863	0.850			
Ease of use					0.912	0.775	0.901
EU2	<---	EU	0.924	0.924			
EU3	<---	EU	0.830	0.830			
EU1	<---	EU	0.885	0.885			
Technological e-readiness					0.817	0.600	0.814
IT5	<---	IT	0.854	0.857			
IT4	<---	IT	0.779	0.779			
IT3	<---	IT	0.677	0.679			
Human resource e-readiness					0.785	0.549	0.788
HM1	<---	HM		0.728			
HM2	<---	HM		0.721			
HM3	<---	HM		0.772			
TM	<---	POER					0.747
IT	<---	POER					−0.269
HM	<---	POER					0.813

Source: Authors' computation from field survey data

Table 3: Fit indices

CFA	CMIN/DF	SRMR	GFI	AFGI	TLI	CFI	RMSEA
First order	2.019	0.0443	0.879	0.845	0.940	0.949	0.059
Second order	2.021	0.0528	0.875	0.845	0.940	0.948	0.059
Acceptable	<3.0	<0.06	>0.90	0.90	>0.90	>0.90	<0.080

Source: Authors' computation from field survey data

As shown in Table 2, the Cronbach's alpha coefficients for all measurement scales were above 0.70. The validity of the organisational e-readiness (human resource e-readiness, technological e-readiness and top management commitment/support), attributes of innovation (ease of use, compatibility and relative advantage) and e-marketing diffusion measurement scales were estimated. The CR and AVE of organisational e-readiness attributes were above 0.70 and 0.50 as shown in Table 3. When we see the CR and AVE of ease of use (CR = 0.0.912, AVE = 0.0.775), compatibility (CR = 0.0.908, AVE = 0.0.665), relative advantage (CR = 0.0.916, AVE = 0.784) and e-marketing diffusion (CR = 0.910, AVE = 0.0.718), the values are consistent with the cut-off points suggested by Fornell and Larcker (1981). Thus, the measurement model does not have the reliability and validity concerns.

To have sufficient model fit, the cut-off points suggested by Hu and Bentler (1999) were used for both first- and second-order CFA. The normed X^2 (the ratio of X^2 to the degree of freedom), Standardised Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI),

Tucker–Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA) were estimated for both first- and second-order CFA as shown in Table 3.

Since the values of GFI and AFGI do not sufficiently fall within the acceptable ranges suggested by Hu and Bentler (1999), the rejection–acceptance decision for the models was made by combining the values of SRMR > 0.08 and RMSEA > 0.05, SRMR > 0.08 and RMSEA > 0.06, SRMR > 0.08 and CFI < 0.95, or SRMR > 0.08 and CFI < 0.96. Having 295 as the relatively small sample size, the statistics for first- and second-order CFA (SRMR = 0.0448, 0.0528; GFI = 0.879, 0.875; TLI = 0.940, 0.940; CFI = 0.949, 0.948 and RMSEA = 0.059, 0.059) confirm that the data adequately fit the hypothesised model and lie within the acceptable range.

4.3 Testing the Causal and Hypothesised Relationships

The hypothesised model was proposed based on the theoretical foundations of technology, e-readiness, IS,

Figure 2: Path diagram of the causal and hypothesised relationships; Source: Authors' computation from field survey

internet, online marketing, internet marketing, e-commerce and e-business adoptions. By using path analysis, the hypothesised causal relationships were tested. Thus, Figure 2 illustrates the coefficients for each linear model.

Figure 2 shows the path diagram of the research model, which reflects the coefficients for the paths. The results indicated that POER significantly affected e-marketing diffusion ($\beta = 0.37, p < 0.001$). This finding provided an empirical support in that tourism businesses with digital experience, technological infrastructure, internet connection, digital skills and managerial readiness were able to easily move to e-marketing diffusion (Molla & Licker, 2005; Abou-Shouk, Lim & Megicks, 2016; Dalvi-Esfahani et al., 2018; Lokuge et al., 2018; Rondovic, Djurickovic & Kascelan, 2019). Consistent with the works of Ahmad et al. (2015), unlike developed countries, the business-level e-readiness affected the diffusion, assimilation and exploitation of e-marketing in tourism businesses of Ethiopia.

The hypothesis tests result shown in Figure 2 and Table 4 reveals that the state of human resource e-readiness, technological e-readiness and managerial e-readiness has become crucial to facilitate the initial diffusion or subsequent institutionalisation of e-marketing ($\beta = 0.37, p < 0.001$). Consistent with the previous studies of El-Gohary (2012), Ahmad et al. (2015) and Abou-Shouk, Lim and Megicks (2016), it was found that the better the prior state of organisational e-readiness, the better the e-marketing ease of use in tourism businesses of Ethiopia. Given that the diffusion of e-marketing was a process of introducing changes into tourism businesses of Ethiopia, the impacts of the such changes were significantly influenced by the extent of the compatibility of the new technologies with the existing practices. Hence, the better perceived organisational e-readiness significantly affected better compatibility of e-marketing to organisational values, cultures, working habits and technological infrastructures ($\beta = 0.48, p < 0.001$). Similarly, the magnitude and direction/change between organisational e-readiness and e-marketing relative advantage were directly and positively related ($\beta = 0.50, p < 0.001$).

In support of the studies of El-Gohary (2012), Aye (2015), Huang et al. (2017) and Agag and El-Masry (2016), the perceived ease of use of e-marketing, the better chances for tourism businesses to make adoption decision. The hypothesis test implies the effect of perceived ease of e-marketing diffusion, its simplicity and convenience to accomplish organisational jobs and the easy mechanism it can create to interact with e-marketing resources. Thus, ease of use was positively and significantly related to e-marketing diffusion in tourism businesses of Ethiopia

Table 4: Hypotheses test results

Hypothesised relationships		Estimates	t-values	Significance
From	To			
H1: POER	EM	0.498	6.212	***
H2: POER	EU	0.501	6.897	***
H3: POER	CM	0.487	9.423	***
H4: POER	RA	0.613	9.954	***
H5: EU	EM	0.256	3.659	***
H6: CM	EM	0.043	0.364	ns
H7: RA	EM	-0.131	-1.245	ns

Note: ***Significant at 0.001, **significant at 0.01, *significant at 0.05 and ns, nonsignificant

($\beta = 0.25, p < 0.001$). Contrary to the previous studies of Ahmad et al. (2015), Amaro and Duarte (2015) and Leung et al. (2015), e-marketing diffusion in tourism businesses of Ethiopia was not significantly affected by compatibility and relative advantage ($\beta = -0.03, p > 0.05$; $\beta = -0.12, p > 0.05$, respectively).

The findings from Figure 2 and Table 4 reveal that the hypothesised relationships represented by H_1 , H_2 , H_3 , H_4 and H_5 were supported by the data. But the causal and hypothesised relationships of hypotheses 6 and 7 were not supported by the data.

Besides, the specific indirect effects were estimated with bootstrapping procedures, as shown in Table 5.

The test results of the indirect effect analysis shown in Table 5 reveal that the indirect effects of POER on e-marketing diffusion through ease of use were significantly different from 0 at 0.05 with 95% confidence interval (0.081–0.295), and that ease of use significantly carried the influence of POER on e-marketing diffusion. But the effects of POER on e-marketing diffusion through compatibility and relative advantage were not significantly different from 0 at 0.05 with 95% confidence intervals (–0.145 to 0.0650, $p > 0.05$) and (–0.230 to 0.023, $p > 0.05$). Hence, compatibility and relative advantage were not carrying significant influences of POER on e-marketing diffusion. Moreover, the effect of POER on e-marketing adoption through the innovation attributes was not significantly different from 0 at 0.05 with 95% confidence interval (–0.059 to 0.095, $p > 0.05$), and attributes of innovation were not mediating the relationship between organisational e-readiness and e-marketing diffusion.

Table 5: Specific indirect effects

Hypotheses	Effects	Lower	Upper	Sig.
H ₈ : Ease of use carries the influence of organisational e-readiness on e-marketing diffusion	0.171	0.081	0.295	0.000
H ₉ : Compatibility mediates the relationship between organisational e-readiness and e-marketing diffusion	-0.040	-0.145	0.065	0.409
H ₁₀ : Relative advantage carries the influence of organisational e-readiness on e-marketing diffusion	-0.095	-0.230	0.023	0.106
H ₁₁ : The effect of organisational e-readiness is mediated by innovation attributes	0.010	-0.059	0.095	0.844

5 Conclusions

The decision to diffuse/adopt or reject e-marketing arises from the organisational e-readiness to accept, assimilate and integrate e-marketing into their marketing strategies. The results confirmed that the impacts of human resources knowhow of e-marketing; the availability human resources with IT skills; the familiarity, awareness, commitment, willingness, support and enthusiasm of the top management to accept e-marketing; the level of computerisation; availability of separate unit for information management system; and affordability and availability of local content e-marketing software on the decision to adopt e-marketing diffusion were strong and significant in tourism businesses of Ethiopia.

Organisational preparedness, willingness and readiness in human resources, technological resources and top management positively and significantly affected perceived ease of use of e-marketing. This implies that perceived ease of use of e-marketing was affected by prior organisational preparedness, readiness and willingness. Since the diffusion of e-marketing was the process of introducing changes into the tourism business operations, the diffusion–rejection decision was determined by the state of preparation and readiness of these firms. The results also confirmed that the better the tourism businesses’ preparation, willingness and readiness at an organisational level, the better compatible becomes e-marketing into the existing values, business practices, cultures and other trading partners’ ways of doing businesses. This means e-marketing compatibility is significantly affected by organisational e-readiness of tourism businesses of Ethiopia.

Like previous research findings, the result of this research supported that tourism businesses’ readiness, willingness and preparation significantly affected the perceived benefits of e-marketing. This means the better these firms are prepared in human and technological resources and have commitment and support from the

top management, the better perception they can develop towards the relative advantage of e-marketing. In other words, when tourism businesses perceived e-marketing to be advantageous in reducing the operation costs, expanding market reach, increasing customer base, increasing sales and revenue, and creating a new mechanism for the promotion of organisational products and services, there was high likelihood to prepare, be ready and show willingness at an organisational level.

6 Limitations and Futures Directions of the Research

The research provided limited POER and innovation attributes to explain e-marketing diffusion in tourism businesses of Ethiopia. The findings of this research were also built on the organisational perspectives of hotels and tour and travel businesses on the diffusion of e-marketing. Thus, the findings should be tested to establish the validity of the research model across a wide sector of tourism businesses and the effects of customer’s perspectives on e-marketing diffusion should be considered. The future studies on e-marketing diffusion should incorporate both organisational and customers’ perspectives with the coincidence of innovation attributes.

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