



E-COMMERCE USAGE AND PERFORMANCE OF SMALL AND MEDIUM TOURISM ENTERPRISES IN TANZANIA

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ABSTRACT

Small and Medium Tourism Enterprises in Tanzania is potentially important for the development of national economy. Its potential is seen in the strong forward and backward links it has with other industries in the country. However, just like in many other developing countries, the performance of these enterprises in Tanzania is revealed to be very low. E-commerce is cited useful to promote enterprises but there was no evidence to justify its practicability in Tanzania. This paper, therefore, uses the success Model to illuminate the effect of e-commerce usage on the enterprises' performance. The 325 questionnaires were collected through cross-sectional survey design. The relationship between the variables was tested by using structural equation modelling. The results revealed that e-ordering and e-advertisement usages have influence on the performance of the enterprises. The e-ordering, e-advertisement and e-payment have an influence on the number of tourist visits enterprises. It is recommended that the enterprises to make effective use of the online advertisements to improve performance. This article also highlights the e-commerce areas that need special attention that would ensure improvement of performance. Moreover, it gives some useful insights to policymakers in the tourism firms looking for specialisation and positioning within the global market.

Keywords: e-commerce, SMEs, tourism Performance, Tanzania

Paper type: Research paper

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1. INTRODUCTION

Tourism is one of the largest and profitable sectors with a great contribution to the global economy. According to Altin, Koseoglu, Yu, and Riasi, 2018; Hua, 2016 and Singh, 2016, tourism sector account for growth of Gross Domestic Product (GDP), new jobs creation, and revenue generation worldwide. Also, tourism is fastest growing sector at least twice the rate of world Gross National Product (GNP) (Hakim, Suryantoro, & Rahardjo, 2021). Some African countries illustrate this significance with a great contribution that tourism has made to job creation and the development of other sectors connected to tourism, improving people's livelihood, reduction of poverty, contribution to the Gross Domestic Product (GDP) and with export earnings (Black, & Cobbinah, 2018; Sindiga, 2018; Nene, & Taivan, 2017; Yusuff, & Akinde, 2015).

In Tanzania, tourism is the nation's key largest sector, followed by mining and agriculture sectors. Moreover, tourism became the Tanzania's largest competitive export industry and one of the largest sources of foreign exchange. Generally, tourism in these countries is dominated by Small and Medium Enterprises (SMEs) and has developed into a fragmented industry (O'Rourke, 2017; Brunswicker, 2016). A study conducted by John (2019) reported that SMEs are important sector relates with tourism sector. The most of tourism enterprises operate in the form of Small and Medium Tourism enterprises (SMTEs). Thus, SMTEs have huge contribution to Tanzania national economy (Kotey, 2017). For instance, the tourism and SMEs sectors contribute to several economic practices, such as the regional development promotion, the creation of new employment, the national economy diversification, and increasing revenue, improving income levels, poverty alleviation and the balance of payments in Tanzania (Jani & Minde, 2017). The SMTEs have the advantages of being flexible, receptiveness, small and strategically positioned.

The remarked contribution of SMTEs makes is safe to argue that the sector is the engine of growth and development of the Tanzania economy (Tehseen, Ahmed, Qureshi, & Uddin, 2019; Taiminen & Karjaluo, 2015). Tanzania has an added advantage to benefit from SMTEs for it has various natural and cultural attractions such as national parks, game reserves, beaches and historical sites. Despite this advantage, the performance of tourism industry in Tanzania is relatively low. The country is observed to have a small market share, sales volume and unsatisfactory number of international tourists visited in Tanzania (1,505,702 tourists) compared to Europe (713,000,000 tourists) and Asia (343,000,000 tourists) (Anderson, 2018, MNRT, 2018). These, however, seem to characterise many developing countries. Ali (2018) and Wang, Chen and Chen (2012) reported that the performance of the tourism firms is low in developing nations. Okello (2014) gives an account of this squat with an argument that these countries fail to develop their tourism because they have a small market share of international tourists. Previous researchers reported that SMTEs face some challenges that include lack of legal and regulatory framework towards tourism (more tax revenue, levies and licenses on tourism), lack of trained staff, poor ICT and physical infrastructure, culture problem, limited capital and strong competition (Eze, 2017; Zhang, 2016; Agboh, 2015).

Recognising the contribution of the tourism firms, the Government of Tanzania, through the Ministry of Natural and Tourism Resources (MNRT), has developed the Tourism Policy of 2016 and the strategies to address the challenges noted and, in turn, monitor and accelerate the growth of tourism development in the country. (Kabbaj, 2018; Jogaratnam, 2017; García, & Tugores, 2016; Wang, Li, Li, & Zhang, 2016). The Policy stipulates tourism as a driving force for the realisation of socioeconomic growth in all sectors (United Republic of Tanzania [URT], 2008).

Besides the policy, the government's commitment to this cause is evident in its investment in the Information Communication Technology (ICT) infrastructure to improve performance of the tourism firm. Building ground and sea networks have been made to improve the performance of the enterprises. Scholars have emphasised that improved ICT infrastructure affects on to the growth of the tourism sector following the increased access and speed of the internet to communicate and advertise tourism (Xue, Shen, Lin, & Hsieh, 2019; Mrkša & Gajić, 2014) Such initiatives are made as part of the efforts to accelerate market share, sales volume and the number of tourists visiting Tanzania (URT, 2008). Despite these efforts by the government, there is low performance among SMEs in tourism firms had been observed (Anderson, 2014).

E-commerce technology is among ICT that has become alternative support for growth and performance of the tourism sector through SMTEs since the 1990s. The tourism sector is benefited from the usage of e-commerce. The literature available shows that several SMTEs have used e-commerce technology in their firms and observed a considerable performance (Hua, Hight, Wei, Ozturk, Zhao, Nusair, & DeFranco, 2019; Shemi & Procter, 2018; Agboh, 2015; Choochinprakarn, 2016). Increasingly, the usage of e-commerce attracts the attention to the tourism firms following its accessibility to increase access to the global market and efficiency without expanding their physical places and increase the competitive position of the firms (Hua *et al.*, 2019; Zhang, 2016; United Nations Conference on Trade and Development [UNCTAD], 2015; Buhalis & Law, 2008). Some scholars reported that the e-commerce usage contributes on increasing income through reduction of the transaction and operation costs on selling, efficiency on online advertising and online ordering (Clarke, 2019; Wang, Fang & Tang, 2016).

On the contribution of e-commerce, some studies, like Morufu (2017) reported that e-payment systems and their instrument, like Automated Teller Machine (ATM), Website Electronic Behaviour (WEB), Perceived Online Security (POS) and Mobile banking significantly influence the performance of banks. Marti'n, Lo'pez-Catala'n and Ramo'n-Jero'nimo (2012) found a relationship between e-commerce acceptance and firms' performance. Mohtaramzadeh (2016) reinforces this claim with evidence from Iran where e-commerce adoption was revealed to have a strong positive relationship with the manufacturing companies' in the country. Moreover, previous studies measured the e-commerce usage as the frequency of use, the time of use, the number of accesses, the extent of use and average frequency with which users use the system (Tsai, Chou, Leu, Chen & Tsaur, 2015). Thus, there are few studies examine the e-commerce usage in terms of commercial oriented activities. The current manuscript attempts to fill the gap in the literature by studying e-commerce usage on commercial oriented activities namely e-advertisement, e-ordering and e-payment.

The review of the literature shows that the theories that were in use are the Technological Acceptance Model (TAM), the Diffusion of Innovation (DoI) theory, Theory of Planned Behaviour (TPB), Theory of Reasoned Action (TRA) and Technological-Environmental-Organisational (TEO) Framework to explain the adoption and usage behaviour of innovated technology. For instance, these previous studies employed these theories to describe the understanding of e-commerce adoption and acceptance phenomena (Lim, Lim & Trakulmaykee, 2018; Idris, Edward & McDonald, 2017). Few studies focused on the ICT theories explain the contribution of e-commerce usage in the performance of tourism firms. Therefore, this manuscript adopted the ISS model to explain the influence of e-commerce usage on SMEs performance of the tourism industry. In addition, ISS model examine the use or system usage to examine the success of information system (DeLone and McLean, 2003). Previous studies studied the effects of the system usage on success of system information (Kharuddin, Foong, & Senik, 2015). Rai, Lang, & Welker (2014) suggested that studying of an e-commerce in the ISS model is important. Hence, in the current manuscript, the system usage is known as e-commerce usage. According to Waweru and Ngugi (2015), in the ISS model is appropriate for the examination of the effects of e-commerce usage on performance. The ISS Model was developed by DeLone and McLean explaining the success of e-commerce usage. However, the ISS model failed to experience the competency of the user of e-commerce technology. Hence, this article complements the competency model by Iceberg to explain the competency of using the e-commerce in tourism business (Spencer and Spencer's, 1993).

2.0 LITERATURE REVIEW

2.1 Theoretical Review

ISS Model explains the performance of SMTEs as an endogenous variable in an e-commerce usage perspective (Exogenous variable) (DeLone & McLean, 2003). This study is built on the extended updated

ISS model. The updated version of the ISS Model measures the interrelationships between six ISS's success factors: system quality, service quality, information quality, intention to use, user satisfaction and net benefits. In the updated version of the Model, DeLone & McLean (2003) added the "service quality" and "intention to use" measures, similarly, the updated version combined the individual and organisation impacts into single impact or benefit category known as Net benefits from original version. The net benefits characterise the conclusion point measure of success. The ISS model and D&M Model in this paper can be used interchangeably to refer DeLone and McLean IS success model.

Although DeLone and McLean (2003) proposed an updated version of their ISSM, there was limited support in practical studies where it was analysed in many contexts. Majority of previous studies reported that analysis of the significance of the variables recommended in D & M model received mixed, even contradictory results (Halawi, McCarthy, & Aronson, 2008; Wu & Wang, 2006). In this current manuscript, tests the influence of e-commerce usage on SMTEs performance examined the influence levels. The intention to use variable related to e-commerce usage and net benefits related to performance constructs in this manuscript (DeLone & McLean, 2003). E-commerce usage refers as the degree and manner in which SMTEs and tourists utilise the competency of technology in terms of advertisement, ordering and paying online.

It is evident from the discussion that ISS theory not only includes the usage acceptance of the firm as a whole but also includes the usage acceptance of the individual user of e-commerce technology. Moreover, this theory fails to deal with competency of the user of technology. So there is a need to discourse another theory, competency model, which provides mechanism to handle the issues of the user competency. To develop usage behaviour, explain that "users must acquire skills, practice integrating them and knowledge to apply on usage of e-commerce. Competency models by Iceberg can help users identify knowledge, skills and self-concept on usage of e-commerce in terms of advertisement, ordering and payment (Spencer and Spencer, 1993). Spencer and Spencer suggested that a user of technology should have technical skills like specialised knowledge, analytical ability, and the capability to use software and hardware which are tools related to e-commerce usage. A user has to validate the ability to use e-commerce effectively which is very crucial to explain the contribution of e-commerce usage on performance. Performance states to the extent to which e-commerce usage is contributing to the success of tourism firm in terms of market share, sales volume and number of tourists arrived in the firms.

The model and theory are not the same. This article adopted ISS model and competency model, the majority of the studies in the ICT area focused on the adapting the ICT model rather than theory. Model put emphasis on understanding the concept through scientific theorizing, while the look on the relationship of concepts. Moreover, a model is said to be a device employed to facilitate conceptual understanding, problem solving, or predicting phenomena related to the behaviour and intention to use the technology. Also, the models can fulfil not only interpretive and predictive functions, but also inventive functions, in the logic that model work as an analogue for the production of new application which in the ICT area emphasises on more advanced. Therefore, it is important in the research conducted ICT area to adopt the model.

2.2 Empirical Literature Review

This paper examines the influence of e-commerce usage on performance. This is because e-commerce usage is important on improving performance of SMEs in tourism sector. In this paper, the SMTEs are defined as tourism enterprises that invested capital above 5 million to 800 million and have 5 to 99 employed staff. The article, therefore, shows the relationship between e-commerce usage and performance of SMEs in the tourism sector.

2.2.1 E-commerce usage and Performance of SMTEs

Electronic Advertisement: Previous studies highlighted the importance of e-advertisement on the improvement of a firm (Eze, 2017). In this article, e-advertisement refers to the frequency of using tourism the information; exchange and get of information with the stakeholders and the display of company information and products on the internet to enhance performance of enterprises. E-advertising usage is an effort to release information on internet networking to create a relationship among SMTEs and tourists (see Figure 1). Theoretically, the ISS Model examined the success of e-commerce usage by emphasising the intention to use and technical skill as drivers for e-advertisement to influence firms' performance (DeLone & McLean, 2003).

However, different studies have had different observations about the contribution of e-commerce. For instance, Yang, Li, Zeng and Jansen (2018) found search engine advertising online influences the competition level and its outcomes to increase effect the market performance. Contrarily, Whereas, Ghose and Yang (2008) reported that e-advertising is not significant in influencing profits. This intricacy called for research in Tanzania to understand the role of whether e-commerce contributes to the performance of SMTEs in the country. The hypothesis held before the conduct of the study was that:

H₁: E-advertisement usage significantly influences the performance of SMTEs.

Electronic Ordering: E-ordering is the frequency of receiving orders from the customers, sending the acceptance of orders to customers, processing orders of the customer and updating order status of the customers by using the internet technology. This is argued to be important to influence the performance of the SMTEs. E-ordering usage is considered an essential factor for performance improvement (Samoei & Ndede, 2018). When e-ordering usage is predictable, tourism firms are likely to consider the improvement of performance as depicted at Figure 1.

The ISS Model informs that the intention to use and user satisfaction affect the net benefit (DeLone & McLean, 2003). In this paper, the use and user satisfaction act as the drivers of the utilisation of online ordering to influence the performance of the tourism firms. In the literature, the relationship between e-ordering usage and performance is said to have a great influence (Evans, Gregory, Maurice & John, 2018; Samoei & Ndede, 2018; Chepkwony & Chepkwony, 2017). Besides, Ha and Stoel (2009) found that e-ordering usage significantly influence SMTEs to improve the performance of the firms. However, Chepkwony and Chepkwony (2017) argued that, the tourism sector in Tanzania has little knowledge on extensive utilisation of e-ordering. The article hypothesised as follows:

H₂: E-ordering significantly influences the performance SMTEs

Electronic Payment: E-payment is a process whereby customers conduct an online transaction, especially in the process of payment; thus, cashless means are considered. E-payment involves SMTEs technical skills on receiving an online booking when payment is made offline, selling online booking when payment is made offline, technical skill and knowledge on receiving an online booking when payment is made online and selling online booking when payment is made online by tourists using e-card/smart card (see Figure 1). E-payment can only be used remotely to pay for purchases, the tourism services and products from the network. Transactions with e-payment which occur with any human contact are not involved and there is no human agent who may deliver assistance to whom trust may be directed. Based on the ISS Model, e-payment usage relates to the performance of a firm.

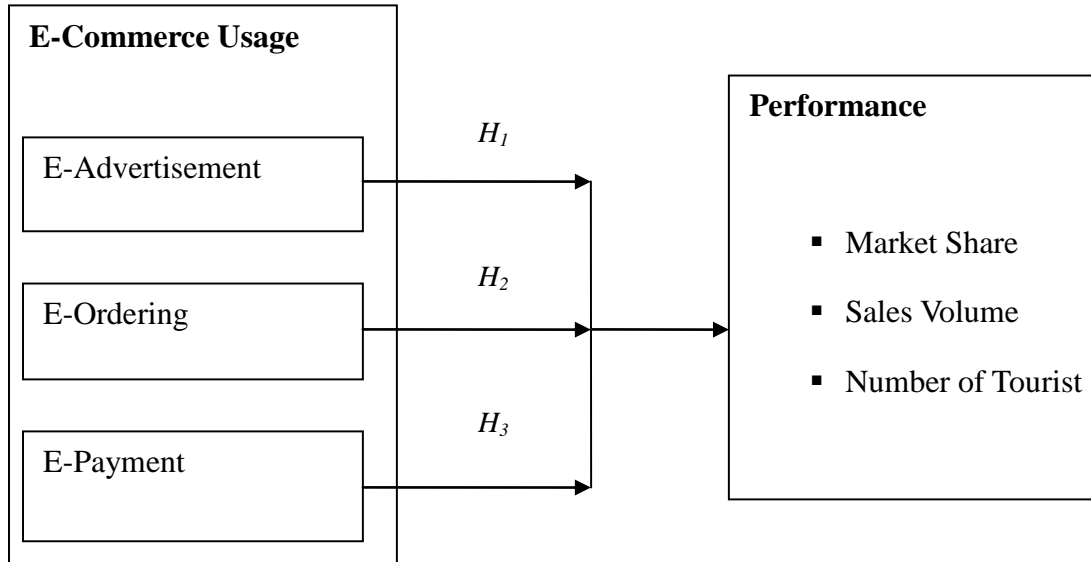


Figure 1: The Conceptual Framework

However, very few studies have measured the influence of e-payment usage and performance. The only studies known to exist are those of Antonietti, Antonioli and Pini (2017) who found that the flexibility of payment system greatly influencing the performance of the organisation. Similarly, Clayton and Criscuolo (2002) found that the use e-payment by firms is more possible to improve performance than those which do not make online payments. However, there is a dearth of the literature that explains the contribution of e-payment usage to the performance tourism industry in Tanzania. Thus, this research was done to test the hypothesis:

H₃: E-payment usage significantly influences SMTEs performance

3. METHODOLOGY

This section informs how data for this study were obtained and analysed. It particularly informs of the research approach, sampling technique, data collection procedures, measurement of variables and the data analysis procedures.

3.1 Research Approach

A quantitative approach compounded by cross-sectional survey was employed to examine the influence of e-commerce usage on the performance of the SMEs in the tourism industry. The study was carried out in Arusha, Kilimanjaro and Dar-es-Salaam because these are the biggest tourist destinations in Tanzania. According to Charles (2019), the areas receive around 75 per cent of safari international tourists. Also, they are the top regions with high tourism investment. However, the performance of SMTEs in these areas is relatively low. So, this research employed the quantitative approach to study the effect of e-commerce usage on the performance of firms.

3.2 Data Collection and Sampling Frame

In this study, the questionnaire was administered to SMTEs managers as the target respondents. The SMTEs managers are more knowledgeable with utilisation of e-commerce technology and their role in the performance of SMTEs. Moreover, the manager decides on the usage of e-commerce and the strategies for the improvement of performance. Before administering the questionnaire to respondents, a pre-test was

conducted to improve the structure and content of the questionnaire and pilot to ensure validity and reliability of questionnaires. Questionnaire method is cheaper, faster and easy than other methods. The questionnaire was administered to those respondents who met the SMTEs characteristics, in which cross-sectional survey design employed (Ismail & Changelima, 2019). Questionnaires were administered to entire population about 378, but only 325 copies deemed fit for the analysis.

Non-probability (purposive and snowballing) sampling techniques were used in this study especially on selecting the tourism sector because the research could not make probability sampling. Since the database of tourism enterprise missed, the necessary information of tourism enterprises; for example, the number of employees and amount of capital invested, a large number of target respondents was used along with the use of snowball method to familiarise with SMTEs. Thus the current research considered the entire target population. This is due to fact that the data were collected during the summer season. Majority of SMTEs are busy with their customers and thus, few fill the questionnaire voluntarily.

3.3 Operationalisation of Variables

To develop an effective survey, the study employed six constructs that were measured via 19 measuring items of the conceptual model. The measuring items were adapted and modified from the existing literature to fit the Tanzania context. The constructs of interest to this study included e-advertisement, e-ordering, e-payment, market share, sales volume and the number of tourists visit the firms. All the statements were evaluated through multiple measuring items, on five-point Likert scale (1= strong disagree and 5=strong agree) except the number of tourists visit the firms were measured continuously.

The four items for measuring e-advertisement usage were the frequency of using tourism information, exchanging information, getting information by stakeholders and display of company information and the products that are offered through the online platform to customers; i.e. through software system. The four indicators to measure e-ordering usage, namely; the frequency of receiving orders from the customers, send an acceptance of orders to customers, processing orders of the customers and updating the status of orders to customers by using software and hardware accessories. E-payment usage was measured using 4 measuring items. The items were receiving an online booking when payment is made offline, selling online booking when payment is made offline, receiving an online booking when payment is made online and selling online booking when payment is made online. Also, the three dependent variables were measured as follows: first variable, market share was measured subjectively using three items, namely; increasing the number of tourists arrived/served in this firm in 2016, 2015 and 2014. Second variable, the sales volume was measured by three indicators, namely; the firm's annual turnover, cost saving in this firm and acceptable price for your firm's product and service. The final variable, the average number of tourists in year was measured objectively.

3.4 Data Analysis

Covariance-based Structural Equation Modelling (CB-SEM) was used to analyse the data collected and the Maximum Likelihood estimation was used to acquire the estimates of the model parameters. The SEM was used for validating measurements and testing the hypothesis. The CB-SEM is suitable for identifying the linear relationships of the reflective construct, which turns to the possibilities of over-simplification of the complexities of the decision to e-commerce usage. Moreover, SEM is appropriate for measuring the latent variables in Likert scale of ordinal captured at an equal interval space . According to [Xiong, Skitmore and Xia \(2015\)](#), CB-SEM requires a large sample size. AMOS 21 version software package was used to carry out the analysis process of the SEM. This study adopted a two phased approach to SEM (Hair, Black, Babin, & Anderson., 2010). The first phase is the measurement model which is calculated using a Confirmatory Factor Analysis (CFA) to evaluate the overall fit and the consistency of the

measurement model by evaluating the validity and reliability of the model of measuring items. The convergent and discriminant validity was used to measure the construct validity. The study examines the fitness of the research model by measuring the goodness of fit. To achieve the goodness fit of the model, the accepted standard, Root Mean Square Error Approximately (RMSEA) should be less than 0.08. then the Comparative Fit Index (CFI), TurkeyLewis Index (TFI), Incremental Fit Index (IFI) and Normed Fit Index (NFI) value should be greater than 0.8 (Hair *et al.*, 2010). Thereafter, the chi-square/degree of freedom should be less than 3 and $P < 0.05$.

Second, uni-dimensionality factor loading, Composite Reliability (CR) and Average Variance Extracted (AVE) was used to evaluate convergent validity. To examine the fit index among the items and their variables, all uni-dimensionality factor loading, CR and AVE should be greater than 0.4, 0.6 and 0.5 correspondingly (Comrey & Lee, 1992). Second, the study performed discriminant validity by assessing correlations between the variables. The value of the correlation of construct should be less than 0.85. Then, the reliability analysis is conducted by measuring cronbach's alpha coefficient values. Measuring items which failed to achieve or exceed the recommended cronbach's alpha values of 0.7 are eliminated (Nunnally, 1978). After, the values of measurement model are good match between each measuring the items and the linked constructs, then, the hypotheses of the study were measured using the structural model as the second phase.

Also, on accepting or rejecting the null hypothesis depends on decision rule on the $P \leq 0.05$ at a 5% level of significance (Rayat, 2018). The decision of accepted or rejected the null hypothesis instead of the alternative hypothesis is that the sub-hypotheses two out of three or the sub-hypotheses three out of three are significant, then the null hypothesis is supported (Nsubili, 2012). On the other hand, if the sub-hypotheses two out of three or the sub-hypotheses three out of three are not significant, the null hypothesis is not supported (Nsubili, 2012). Table 2 presented the results of the path analysis.

4. RESULTS

4.1 Measurement Model

The study results consider the measurement model of goodness of fit, reliability, convergent validity and discriminant validity of e-commerce usage and performance of the tourism firms (e.g., in Figure 1 and 2) respectively. The overall fit of the measurement model was analysed by using six common goodness of fit index (e.g., in Table 1).

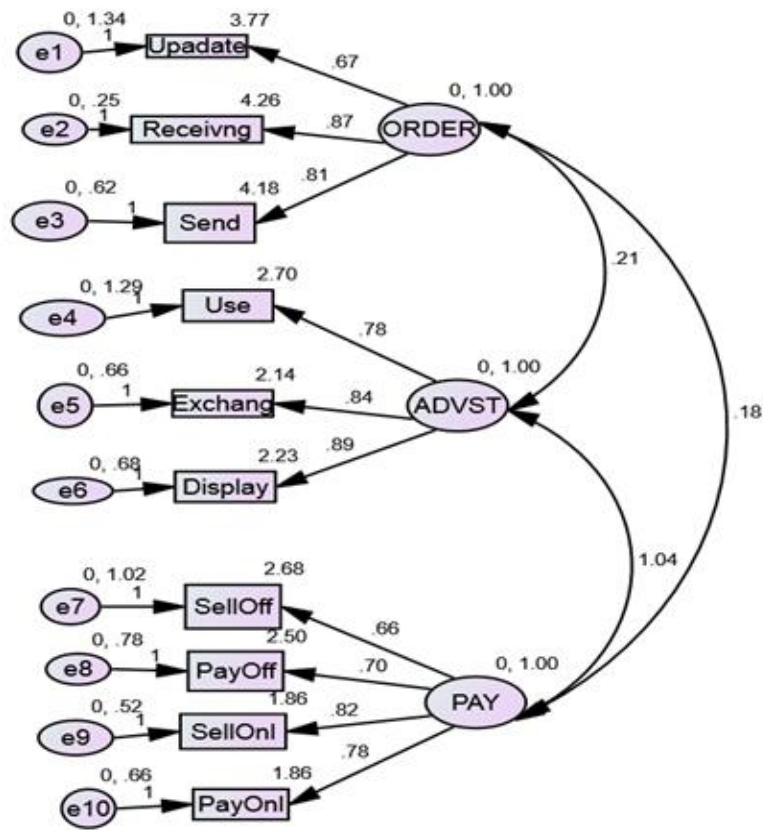


Figure 1: Measurement model of E-commerce usage

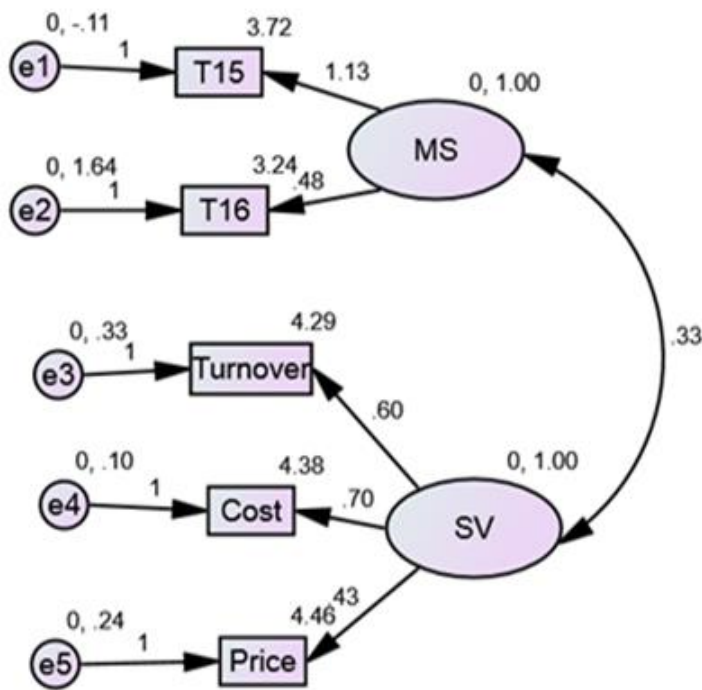


Figure 2: Measurement model of Performance

As illustrated in Table 1, all measures of goodness fit index such as RMSEA, CFI, TLI, IFI, NFI, Chi-square/Df, and P-Value of e-commerce usage and performance exceeded the recommended threshold. The constructs loading items are significant when they revealed the P- Value < 0.05. Thus, indicate that the measurement model is very good fit with the data well.

Table 1: Goodness of Fit Indexes Assessment

Name of Category	Index	E-commerce Usage	Performance
Absolute Fit	RMSEA	0.12	0.066
Incremental Fit	CFI	0.869	0.993
	TLI	0.861	0.975
	IFI	0.871	0.993
	NFI	0.874	0.984
	Chisquare/Df < 3	2.700	1.688
Parsimonious Fit	(P<0.05)	(P-value = 0.000)	(P-value = 0.000)

All constructs of e-commerce usage and performance exceeds 0.7 Cronbach's alpha. Therefore, all construct conforms to the suggestion and have a great degree of homogeneous consistency and reliability. Since there is reliability among the measuring items adopted. Table 2 indicates the cronbach's α value of constructs.

Table 2: Measurement Model: Reliability and Convergent Validity Assessment

Construct	Measuring Items	Reliability	Convergent Validity		AVE
		Cronbach's α value	Factor Loading (λ)	Composite Reliability (CR)	
E-Ordering	Sending ordering to customers		0.715		
	Receiving ordering form customer	0.707	0.868	0.76	0.506
	Updating ordering of customers		0.503		
E-advertisement	Displaying information		0.733		
	Exchange of information	0.716	0.72	0.754	0.557
	Use of tourism information		0.564		
E-payment	Payment online		0.692		
	Selling online	0.781	0.749	0.749	0.531
	Payment offline		0.621		
Sales Volume	Selling offline		0.546		
	Acceptable Price		0.661		
	Cost Saving	0.805	0.91	0.812	0.505
Market Share	Turnover		0.721		
	Tourist Arrival ¹⁵	0.728	1.046	0.715	0.609
	Tourist Arrival ¹⁶		0.353		

Then, the factor loading of all measuring items was calculated. The factor loading for getting information from stakeholder, processing of customer order and the number of tourists' arrival 2014 were lower than 0.4, and thus items were dropped from analysis. Since, measuring items was not explained well, the number of tourists who visited the firm's 2014. After these measuring items were deleted from analysis, the findings demonstrate that all the individual factor loading value for constructs (e-commerce and performance) were greater than the recommended level of 0.4 (see Table 2). The factor loading of retained measuring items should achieve the recommended value. Consequently, no more changes were observed. This implies that the e-ordering, e-advertisement, e-payment, sales volume and market share are well explained by their respectively measuring items.

Before the estimation of the discriminant validity, CR and AVE were calculated as represented in Table 2. The CR values were above the recommended value for e-ordering, e-advertisement and e-payment of e-commerce usage. Then, the CR values for sales volume and market share as performance. This implies that the internal consistency of measuring items of the latent variables is met. The findings revealed that the values of the AVE are greater than 0.5 for all constructs. This implies that the convergent validity of measuring items explained the latent variable. Generally, all three conditions for convergent validity are adequate.

Moreover, the discriminant validity of the measurement model was calculated. As indicated in Table 3, the correlations between the factors are smaller than the recommended value of 0.85. The factor which explains e-commerce usage and performance were above the recommended value of correlation. Therefore, this result confirms that the construct is more strongly related to their respective indicators than other constructs in the model. Also, the latent variables are explained by their observed variables.

Table 3: Correlation Measurement Assessment

	Items	Estimate
E- Ordering	⊗> E- Advertisement	0.213
E- Payment	⊗> E- Ordering	0.179
E-Payment	⊗> E- Advertisement	0.743

4.2 Structural Model

Once, the measurement model is found to be satisfactory, other subsequent part in the SEM is structural model (Hair, *et.al*, 2010; Kibambila & Ismail, 2021). The hypotheses are tested using structural model (path analysis) (e.g., in figure 3). The hypotheses H₁ shows that the association between e-ordering usage and performance was positively and significantly influenced as presented in Table 4. For instance, H_{1a}, H_{1b} and H_{1c} are all supported, the value of P=value is greater than 0.05. This implies that the results moderately supporting the market share and sales volume, as well as strongly support the number of tourists visits in the tourism firms.

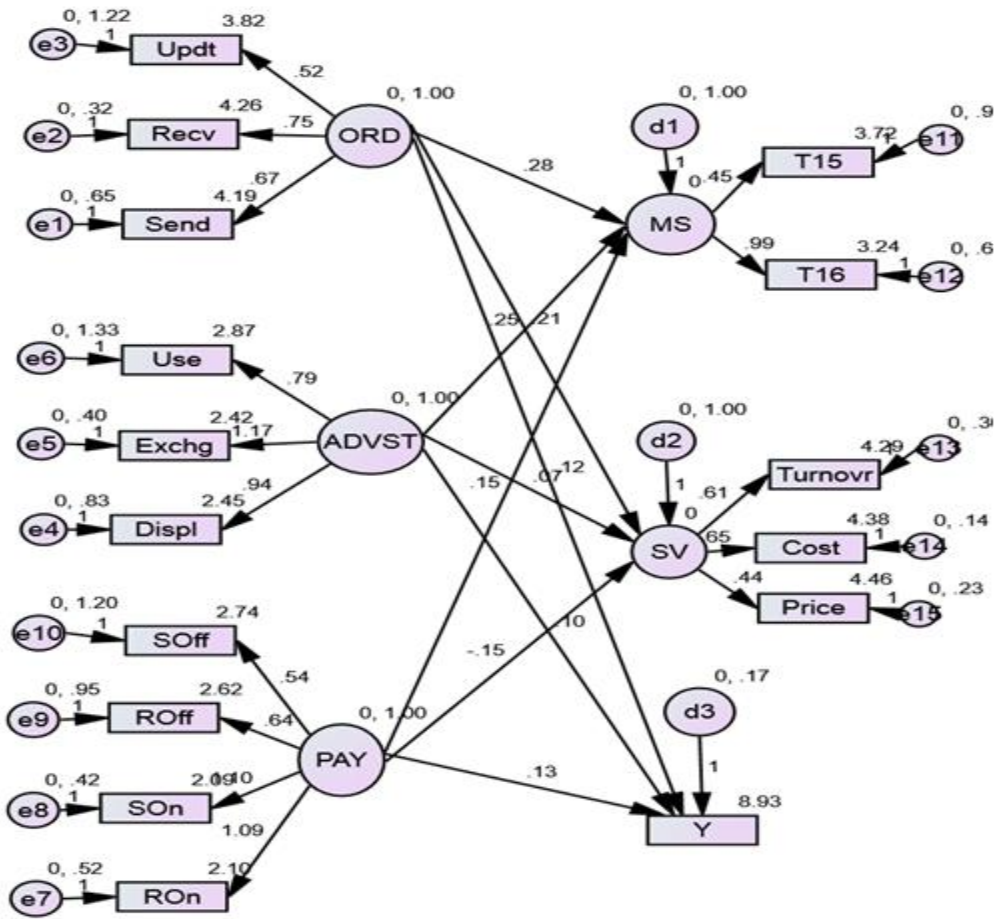


Figure 3: E-commerce Usage and Performance Regression Result

Secondly, the hypothesis H₂ indicates that the association between e-advertisement usage and performance is supported. The results of the path coefficients β and P-values (see in Table 4) revealed that e-advertisement (H_{2a} and H_{2c}) positively and significantly influence market share and number of tourist visit. However, H_{2b} is not supported; thus, e-advertisement usage does not significantly influence sales volume.

Table 4: The Results of The Relationship of E-commerce Usage and Performance

IV	DV	Estimate	S.E.	C.R.	P	Hypotheses	Remarks
E-Ordering	Market Share	.277	.096	2.885	.004	H1a	Supported
	Sales Volume	.210	.073	2.860	.004	H1b	
	Tourist Arrival	.116	.028	4.176	***	H1c	
E-Advertisement	Market Share	.251	.089	2.819	.005	H2a	Supported
	Sales Volume	.069	.067	1.026	.305	H2b	
	Tourist Arrival	.098	.026	3.737	***	H2c	
E-Payment	Market Share	.153	.081	1.882	.060	H3a	Not Supported
	Sales Volume	-.152	.067	-2.272	.023	H3b	
	Tourist Arrival	.133	.026	5.132	***	H3c	

Finally, the H_3 conforms; the correlation between e-payment usage and performance is not supported. The results of the path coefficients β and P-values (see in Table 4) show that e-payment usage (H_{3c}) positively and significantly influence number of tourist arrival, also, the extent of influence is greater. However, market share and sales volume not significantly influence e-payment usage; H_{3a} and H_{3b} are not supported. The relationship between e-payment usage and sales volume has significant influence though with negative relationship.

Overall, the study results indicate that the e-ordering usage has positive and significant influence on market share, sales volume and the number of tourist arrival. Consequently, e-ordering usage is main factor that determine performance in tourism firms. Also, e-advertisement usage has significant influence on market share and the number of tourist visit. Moreover, the e-payment influences the number of tourist visits. The number of tourist visits on the firms is significantly influenced by the e-advertisement, e-ordering and e-payment as an e-commerce usage. This confirms that the increase of e-commerce usage results in a greater influence on the number of tourist visits in a tourism firms. Therefore, the increase in the level of e-commerce usage increases the performance of SMEs in tourism enterprises.

5. DISCUSSION

In this study, e-advertisement and e-ordering usages are identified as factors that influence performance SMTEs in Tanzania. The influence is seen in terms of market share, sales volume and the number of tourist visits.

5.1 E-advertisement

Generally, the statistical findings show that e-advertisement usage is significantly related to performance. The significant role of e-advertisement on market share and the number of tourists' arrival are perhaps attributed by the display of information in the SMTEs' website. In the survey, a majority of the SMTEs website shown their company profile and product offered. Also, the government supports promotion of tourism attractions of our country. This facilitates tourist to travel in Tanzania, thus results in an increase in the market share and the number of tourists who visit the firms. The e-advertisement does not affect the sales volume of SMTEs. This may be explained by the increase in the number of tourists who visit Tanzania from Kenya (Wade, Mwasaga & Eagles, 2001). In so doing, Kenya provides hospitality, airline travel and safari services to tourists while Tanzania just received concession fees. Thus, the e-advertisement has no effects on sales volume.

Also, these results are in line with ISS Model and competency model (Yang, Li, Zeng & Jansen, 2018 DeLone & McLean, 2003; Spencer and Spencer, 1993) which indicate that search engine online influences the competition level and its outcomes to the increase in effect market performance. However, this result is inconsistent with that of Ghose & Yang (200) who said that e-advertisement does not significantly influence maximisation of profits.

5.2 E-Ordering

The result also revealed that e-ordering usage plays a greater role on the performance of firms. Efficient usage of e-ordering technologies would essentially increase the market share, sales volume and the number of tourist arrivals who attract the customers to the firm. It is, therefore, logical to think that it is simple to receive and send acceptance of orders through online platform, which ultimately increases the level of performance. Furthermore, it is easy to process orders and update the status of customers' orders, which facilitates the improvement of the performance. Likewise, consumers' risk is very low compared to the e-payment usage level. This finding is in line with the knowledge trained by the ISS Model and Competency model as well as the findings of the empirical studies of Chepkwony and Chepkwony (2017) and those of Evans, Gregory, Maurice and John (2018); Samoei and Ndede (2018) and Ha and Stoel (2009)

who generally reported that there is a significant effect of e-ordering practices on the performance of the firms.

5.3 E-payment

The findings also show that e-payment usage has no significant positive influence on the performance of firms. This could probably be because the SMTEs have been very rarely receiving and selling online booking and payments. There is a slow usage of methods of e-payment like credit cards/smart cards, e-cash and electronic fund transfer about 19.3 percent compared to cash based 72.5 percent. The customers have no trust in the way e-payment is conducted. Also, tourists perceive e-payment usage as unsafe because it is made online and so it has a high risk than payment in cash. Moreover, the user of e-commerce should not possess technical skills and knowledge on facilitating the online usage of transaction. This result contrasts with the ISS model and competency model. Empirical studies have also generated inconsistent results. For example, Antonietti, Antonioli and Pini (2017) reported that the flexibility of payment system greatly influenced the performance of an organisation. Similarly, Clayton and Criscuolo (2002) have shown that e-payment significantly influences firm performance.

6. CONCLUSION

The statistical results confirm that e-advertisement usage positively impacts market shares and the number of tourists arriving in the firm. On the other hand, e-advertisement does not influence sales volume in the tourism firms. It concludes that e-advertisement usage highly contributes to the improvement of performance of SMEs in the tourism industry. Therefore, in order to enhance improvement of performance, SMEs and stakeholders ought to facilitate SMEs with e-advertisements. Such e-advertisements should necessitate increasing the frequency of using and exchanging tourism information and displaying company profile. The statistical findings confirm that the e-ordering usage have positively influence on market share, sales volume and the number of tourists visiting the firms. In conclusion, an online usage of ordering among SMTEs plays vital role in the performance of the firms. Therefore, the article tells that, in order to inspire e-ordering usage, the government and other SMTEs stakeholders should increase frequency of receiving and sending acceptance of orders, processing orders and updating the status of order from/to tourists.

The SEM findings confirm that paying online positively impact the number of tourists visiting in the firms. In contrast, e-payment does not significantly influence market share and sales volume. It concluded that e-payment usage has not had any important contribution to improvement of performance in tourism firms. Therefore, to improve performance, SMEs and other stakeholders need some motivation to increase the usage of credit cards/smart cards, e-cash and electronic cash transfer among SMEs in the tourism sector in Tanzania. Regarding at all natures of influences, the conclusion reached is that the number of tourists' visits in the firms is positively influenced by the e-commerce usage, including the e-advertisement, e-ordering and e-payment. This, therefore, leads to the recommendation that SMEs should invest in all natures of e-commerce usage to increase the number of tourists' arriving in our country to see the tourism attractions.

This study has upgraded a theoretical model that incorporates e-advertisement and e-ordering as constructs of e-commerce usage to explain and predict the performance of tourism firms. The research results prove that the competency on e-commerce usage has a vital role on enhancing the performance of SMEs in tourism firms. Also, there is change made on the intention to use dimensions in the D and M model can be represented as e-commerce usage. Moreover, the usage of e-commerce in terms of advertisement, ordering and payment online need the competency especially on the knowledge and

technical skill. This e-commerce usage goes beyond intention to use in any system usage; it considered the more applications of e-commerce usage on commercial oriented activities.

7. IMPLICATIONS OF THE FINDINGS

The statistical findings have multiple implications for the success of e-commerce usage. The theory (ISS model) has generated relevant and appropriate variables of the conceptual framework since a single theory capable to explain the relationship of variables. In view of results from ISS model and competency model, the theoretical framework provides a holistic approach in examine a new approach of analysing the relationship of e-commerce usage and performance of the firm. This result is specifically important for SMTEs in developing effective strategies and technical skills for e-advertisement and e-ordering to improve the performance of tourism firms. SMTEs need to have more focus e-advertisement with their technical skills to globally promote the important tourist attractions in Tanzania.

Also, the statistical results suggest the ICT vendors/promoters should design software that could motivate SMTEs to use e-advertisement and e-ordering including exchange of tourism information, receiving and sending online orders and update order status. Availability of such software would increase the usage of e-commerce effectively which in runs enhancing performance of SMEs in tourism sector. Thus, both e-advertisement and e-ordering usages offer special solutions to the problem of low performance of SMEs in the tourism industry. Furthermore, there is an association between user technical skills and knowledge and utilisation of e-commerce technology to enhance performance of the tourism firms. Thus, the entrepreneurs MNRT have the responsibility of training staff through workshop and seminars relating to business and ICT skills and knowledge.

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