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Factors Determining Tertiary Tourism Education Quality in Kenya: The Perspectives of Tourism Graduate Employees and Tourism Employers

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Abstract:

Tourism industry is one of the contributors to the growth of the Kenyan economy. Given its economic importance, both the government and the private sectors have invested heavily in the training and human capacity building for the tourism industry. Tourism education is considered critical for effective work performance in the tourism industry as it equips the employees with relevant knowledge, skills and competencies. As search, there is a need for the kind of tourism education given to learners to reflect both the needs of the learners and of the employers in the job market. In view of this, its important to identify factors that determine tertiary tourism education quality from the perspectives of the tourism graduate employees and tourism employers. A cross sectional survey research design was employed to collect data from 385 tertiary tourism graduate employees and 385 tourism employers in Kenya using multi-stage sampling. Data was collected using self-administered questionnaires. Factor analysis and multiple linear regression analysis were used identify the factors. A three-factor solution namely teaching and learning process, learning resources and curriculum structure emerged. These factors accounted for 75.95% of the total variance explained. Four items significantly predicted the first two factors in each case ($p < 0.01$) with $R^2 = .88$ and $R^2 = .75$ respectively. The last factor was significantly predicted by five items ($p < 0.05$) with $R^2 = .91$. The study provides insights to tertiary tourism education program developers and the training institutions on the key areas they should focus on in ensuring tertiary tourism education quality.

Keywords: *Tertiary tourism education quality, tourism graduate employees, tourism employers, tertiary tourism institutions, Kenya.*

1. Introduction

Tourism is considered a strategic economic development tool in Kenya. Given its economic importance, the government and the private sectors have invested heavily in the tourism sector including training, educating and human capacity building for the tourism industry. Education is considered a critical element in the development of human resource (Sivakumar & Sarvalindgam, 2010) for most economic sector including the tourism industry. Education and training are therefore an important consideration for tourism industry who need to equip their workforce with the relevant knowledge, skills and competencies. In Kenya, the tourism industry relies heavily on sourcing its workforce from graduates of tertiary tourism education that include tertiary colleges and institutions focusing on hospitality and tourism curriculum. According to Akareem and Hossain (2016), there is a need to assure a standard quality of service by tertiary education institutions to sustain in the market they operate. This imply that tertiary institutions should offer quality education in order to sustain the market which include the number of students being enrolled into various programs and the number of quality graduates being released into the market. Of critical importance in this study is the quality of graduates. While previous studies contend that education quality can be determined by multiple dimensions (Akareem & Hossain, 2016; Akareem & Hossain, 2012; Cheng & Tam, 1997; Gallifa & Batalle, 2010; Poole, 2010; Shen, Luo & Lam, 2015; Tsinidou, Gerogiannes & Fitsilis, 2010; UNICEF, 2000) it's not clear as to which factors determine tertiary tourism education quality when both the perspectives of the tourism graduate employees and tourism employers are put into consideration. This article therefore aims to investigate on factors determining tertiary tourism education quality in Kenya from the perspectives of tertiary tourism graduate employees and tourism employers (managers and supervisors in the tourism industry).

2. Literature Review

2.1. Tourism Education Quality

Quality as contained in Oxford Advanced Learner's Dictionary (2010), means the standard of something when it is compared to other things like it; how good or bad something is. Woodhouse, cited by Akareem and Hossain (2016), define quality as fitness for purpose. This was an extension of Juran's definition who defined quality as fitness for use whereby fitness is defined by the customer or the user of service or product (Juran & DeFeo, 2010). Quality is, however, considered a variable term that may have different meaning depending on the object being viewed and who the viewer is, in relation to the object. In attempt to understand what quality is, Garvin (1984) espoused a framework that describes quality using five complimentary approaches namely transcendent, product-based, user-based, production-based and value-based view. These approaches can be summarised as follows according to Fieldset al. (2014):

- The transcendent approach views quality of a product or service as an intrinsic attribute that's universally recognisable based on some standards.
- The product-based approach views quality based on quantifiable attributes. For instance, how many of attributes does a product or a service have in comparison to another. In relation to skills, this would be with regard to how many skills or knowledge were developed or acquired as a result of going through an education system or curriculum.
- The product-based approach views quality in terms of measurable attributes over an individual's personal preferences. These include the use of subjective and objective dimensions such as performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality.
- User-based approach views quality based on the degree to which a product or service satisfies the user's needs, wants, or preferences. This can be compared to the degree to which tourism employers perceive tourism graduate employees to efficiently and effectively accomplish their tasks while at work.
- The production-based approach views quality as conformance to requirements while the value-based approach assesses quality in terms of costs and benefits.

Education quality per se is multi-dimensional (Cheng & Tam, 1997) and can be measured by inputs to the education systems, the process itself as well as using the quality of outputs (Shen et al., 2015; Cheng, 1995a). A similar approach can be applied in the measurement of tourism education pointing to different stance to defining tourism education quality. Tourism education quality can therefore be viewed using different lenses given the interplay of various stakeholders involved. No matter the approach used to define education quality, Cheng and Tam (1997, p. 23) contend that "...the definition of education quality may often be associated with fitness for use, the satisfaction of the needs of strategic constituencies (e.g. policy makers, parents, school management committee, teachers, students, etc.) or conformance to strategic constituencies' requirements and expectations." This article adopts Cheng and Tam (1997, p. 23) definition of education quality that: Education quality is the character of the set of elements in the input, process, and output of the education system that provides services that completely satisfy both internal and external strategic constituencies by meeting their explicit and implicit expectations. In this regard therefore, tourism education quality can be defined as the character of the set of elements in the input, process, and output of the tourism education system that provides services that completely satisfy both internal and external strategic constituencies of the tourism industry by meeting their explicit and implicit expectations.

2.2. Factors Determining Tourism Education Quality

As already explained, education quality is a multi-dimensional aspect (Cheng & Tam, 1997; Shen, et al., 2015) that can be measured using different parameters depending on who is involved and concerned with the tourism education quality issues (Gallifa & Batalle, 2010). Factors determining education quality have been investigated by various researchers (Akareem & Hossain, 2012; Ashraf, 2012; Ashraf, Yusnidah, & Joarder, 2009; Cheng, 1995a; Tsinidou et al., 2010; Gallifa & Batalle, 2010; Cheng & Tam, 1997; Shen, et al., 2015; Walker, 2008; Mitchell, 2010; UNICEF, 2000). Extant literature indicate that tourism education quality can be determined by quality of students, faculty credentials, academic features, and administrative supports (Akareem & Hossain, 2012; Ashraf et al., 2009), learners, environments, content, processes and outcomes (UNICEF, 2000), the input, process, output of education system and the services the education system delivered to its internal and external constituencies (Cheng, 1995a), the expectation of the target consumer of the product or service (Gallifa & Batalle, 2010), inputs to the education systems, the process itself as well as using the quality of outputs (Shen et al., 2015), academic staffs, administrative services, library services, curricula structure, location, facilities and career prospects (Tsinidou et al., 2010), course contents, academic staff, and grades (Walker, 2008). Mitchell (2010) used course design elements as one of the dimensions to defining education quality. She, however, recommended that education quality, particularly at higher level like tertiary institutions, should be aligned with required recognition of outside agencies which include the employers. Her sentiments imply that the views of also the consumers of tourism graduate employees should be factored in determining tourism education quality factors. Common factors across the extant literature points to the enabling inputs as determinants of tourism education attributes as teaching and learning, resources, and the curriculum content. These are further explored next.

2.2.1. Teaching and Learning Process

According to Olelewe, Nzeadibe and Nzeadibe (2014), the process employed in imparting knowledge and skills to learners matters a lot in determining quality outcome of education. This is because it fashions human development and

change (Tsinidou et al., 2010) that is necessary for effective work performance in the tourism industry. Tsinidou et al. (2010) in fact argue that the impact of the curricula is felt during teaching and learning process. One can tell whether the teaching methods are working or not and that learners are motivated to learn. In this regard, they measure teaching and learning process based on student time spent learning, assessment methods for monitoring student progress, styles of teaching, the language of instruction and classroom organization strategies. Shen et al. (2015) evaluated teaching and learning based on how effective faculty members' teaching can achieve set learning outcomes and whether they can apply their research, counseling, and/or industrial experience to the courses they are assigned to teach. Teachers' effectiveness in this regard points to their quality aspects in delivering tourism courses assigned to them successfully. Teachers' quality per se is measured using teachers' personal quality (general personal qualities, kindness, leadership, and attitude toward profession) and professional qualities (knowledge of the subject matter and didactic knowledge) (Shen et al., 2015).

2.2.2. Learning Resources

Numerous authors (Shenet et al., 2015; Fuller et al., 1999; Olelewe et al., 2014; Tsinidou et al., 2010; Ashraf et al., 2009; Ashraf, 2012) have dedicated their efforts to understanding the concept of education resources and education quality. On a general perspective, Ashraf (2012) argue that learning resources influences the overall learning of the students which affect the education quality. Shen et al. (2015) in their study for instance ranked faculty as the second important component of education quality. They considered teachers' quality and their teaching performance as part of learning resources. In their study, teachers' quality was evaluated using faculty members' experience in the field of tourism and their specialization areas and whether these were in tandem with the program aims and the courses assigned. On the contrary, Olelewe et al. (2014) argue that true quality of teachers is of great concern to any investor in education industry since it leads to quality outcome. Tsinidou et al. (2010) and Shen et al. (2015) also examined resources in terms of varied training facilities available. While Tsinidou et al. (2010) claim that facilities are important because they form part of the learning atmosphere, Shen et al. (2015) concluded that such resources were the least determinant to education quality. Fuller et al. (1999) in fact contend that the quality of school facilities seems to have an indirect effect on learning. Despite there being a general consensus that tourism education quality is determined by a number of factors, it's not clear as to what these factors really are particularly with regard to tertiary tourism education in Kenya.

2.2.3. Curriculum Structure

Tsinidou et al. (2010) defines curriculum as the planned interaction of students with instructional content, materials resources, and processes for evaluating the attainment of educational objectives. According to Shen et al. (2015) curriculum is concerned with the designing of program courses to align them to the program aim and objectives current trends, program development features, industry trends among others. They consider curriculum and instruction as the most important contributor to quality education. Different attributes have been used previously to measure curriculum structure. Ashraf et al. (2009) for instance used academic calendar by focusing on semester structure as an indicator to quality education in Bangladesh private universities. The researcher found that the semester is run irregularly with no tight schedule, which in turn affects students' planning of their studies and eventually quality of education negatively. This implies that semester schedules and the manner in which the semesters are conducted would have an effect on the quality of tertiary tourism education. In spite of many studies exploring and suggesting multiple dimensions in determining education quality, these concepts still remain relatively unexplored with regard to tertiary tourism education quality in Kenya. Furthermore, there is limited research that particularly focuses on the perspectives of tertiary tourism graduate employees and tourism employers. In addition, the relative importance of each indicator might be different from institution to institution and therefore it would be important to get the views of both graduate employees from who have gone through tertiary tourism institutions and are currently working in the tourism industry.

3. Methodology

3.1. Research Design and Population

The study adopted a quantitative approach with cross-sectional survey research design in which data was collected and analyzed quantitatively over a period of four months. Study population consisted both tourism graduate employees who graduated with diploma and certificate in tourism and working in tourism organizations and institutions that included travel agencies, tour operators, Kenya Wildlife Services (KWS) and the National Museum of Kenya (NMK). The population also included managers and supervisors in the mentioned institutions in Kenya. According to Kenya Association of Tour Operators (KATO) (2017), there are 314 registered tour operators in Kenya. Kenya Association of Travel Agencies (KATA) (2017) also indicate that there are 166 registered travel agency companies in Kenya. The National Museums of Kenya (NMK) (2017) and the Kenya Wildlife Services (KWS) (2017) indicate that there are 21 museums and 37 parks and reserves in Kenya respectively. These are presented in Table 1.

Targeted Institutions/Organisations	Number in Kenya
KATO Members (Tour Companies)	314
Museums in Kenya	21
KATA Members (Travel Agencies)	166
KWS (Parks and Reserves)	37
Total	538

Table 1: Number of Registered Tourism Institutions

However, it's not known as to how many tourism graduate employees are employed in these institutions and how many managers and supervisors are in the targeted institutions or organisations given the different structures of management and operations. Therefore, the population size for the study was considered infinite.

3.2. Sample Size and Sampling Procedures

To determine the sample size for the tourism graduate employees and tourism managers and supervisors, Cochran (1977) formula was used as follows:

$$n_0 = Z^2 \times p \times q / e^2 \quad [1]$$

Where:

n_0 = Sample Size

Z = Z value which is 1.96 (for 95% level of confidence)

p = estimated proportion of an attribute that is present in the population which is 0.5

q = 1 - p

e = desired level of precision (Confidence interval) which in this case will be 0.05

$$n_0 = 1.96^2 \times 0.5 \times 0.5 / 0.05^2$$

$$n_0 = 384.16$$

Therefore, the sample size for tourism graduate employees was 385 and that for tourism managers and supervisors was also 385.

To draw the target sample from the population, multi-stage sampling consisting of stratified sampling, proportionate and simple random sampling was used. Each population set was first stratified into four strata namely tour companies as registered by KATO, travel agencies as registered by KATA, NMK entities and KWS parks and reserves as shown in the Table 2. Using the total of 538 tourism enterprises and organisations and a minimum target sample size of 385, proportionate sampling was used to draw sample size from each stratum. For instance, this resulted in 225 tourism graduate employees and 225 tourism managers and supervisors from tour companies as depicted in Table 2. This resulted in an increased sample size of 387 from 385 for each set of population. To draw the actual target respondents, simple random sampling was used.

Targeted Institutions/Organisations	Number in Kenya	Graduate Employees	Managers/Supervisors
KATO Members (Tour Companies)	314	225	225
Museums in Kenya	21	16	16
KATA Members (Travel Agencies)	166	119	119
KWS (Parks and Reserves)	37	27	27
Total	538	387	387

Table 2: Sample Distribution for the Study

3.3. Data Collection

Self-administered questionnaires were used to collect data. The questionnaires were pretested using an additional 10% of the sample size. The final versions of the questionnaires were distributed to the targeted respondents to fill. The respondents were required to provide demographic information about themselves. They were then required to indicate on a five-point Likert scale the relevance of the 17-tourism program orientations/attributes to determining tertiary tourism education quality in terms of the competence, skills/knowledge and personality attributes they considered important to successful work accomplishment in the tourism industry. The scale ranged from 1 -Very irrelevant to 5-Very relevant with a value of 5 being as assigned more weight. The data collection process was conducted for a period of six months.

A total of 387 questionnaires were collected back from the tourism graduate employees out of which two were incomplete hence were excluded from the analysis. On a similar note, 385 complete questionnaires were collected back from the tourism managers and supervisors. Attempts to get the remaining two did not yield any fruits hence were excluded from the analysis.

3.4. Data Analysis

Once the data were entered into SPSS, frequencies were computed for each item and checks made for missing data and to identify outlier responses by producing box plots in SPSS 20.0. Normality for data distribution was assessed using skewness and kurtosis.

The reliability of the measures was established by testing for consistency and stability of the questionnaire results in the pre-test study and the main survey using Cronbach's alpha. The data were then analysed using both descriptive and multivariate analysis methods. First, frequencies and means generated in SPSS to describe the distribution of data as well as the demographic composition of the study sample. To determine the factors determining tertiary tourism education quality in Kenya, Exploratory factor analysis (EFA) was conducted in SPSS with principal axis factoring (PAF) and varimax rotation. PAF was used because it represents high quality decision in understanding latent structure for a set of variables that account for relationships among the measured variables (Hershberger, 2005). Kaiser's criterion (eigenvalue > 1) was used in determining the number of factors to retain for interpretation. Sample adequacy for conducting factor analysis was ascertained using Kaiser-Meyer-Olkin (KMO) value threshold > 0.50 (Field, 2017, Hershberger, 2005). Only factor loadings equal to or greater than .50 were retained for interpretation as any loading below 0.50 is considered low factor loading (Costello & Osborne, 2005; Field, 2017). Bartlett factors scores were retained for regression analysis. Bartlett factor scores were used because the procedure is considered to produce unbiased estimates of the true factor scores and also provides unique solutions for factor analysis results (Hershberger, 2005). Factors were named based on the information from the literature. Multiple linear regression analysis was used to validate factor models as described by Obonyo, Ayieko and Kambona (2014). Bartlett factor scores of the different factors derived in factor analysis were entered as dependent variables with their constituent variables as independent variables. The validation process included the assessment of regression coefficients to estimate linear equation involving the 17 tourism education quality attributes that best predict the value of the various factors generated. F-statistics in regression was used to test model fitness while t-values were used in regression to evaluate the significance of each attribute in a factor structure.

4. Research Findings

The reliability results show that all the 17 items were reliable in measuring their respective construct given that the Cronbach's alpha for the construct was >.7. Cronbach's alpha reliability coefficients registered in the pre-test study and in the main survey were $\alpha = .97$ and $\alpha = .95$ respectively. No cases of missing data or outliers were also detected. On average, the data exhibited a normal distribution with the skewness and kurtosis values falling in the range of +1 and -1 thresholds (see Table 3).

Study Variables	Min	Max	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
P03: Assessment and feedback	1.00	5.00	-.57	.09	-.81	.18
P06: Quality of the teacher/lecturer/facilitator	1.00	5.00	-.70	.09	-.54	.18
P09: Learning context	1.00	5.00	-.66	.09	-.55	.18
P12: Teaching methodology	1.00	5.00	-.67	.09	-.61	.18
P16: Individual assignments	1.00	5.00	-.62	.09	-.49	.18
P17: Consultations with lecturers in office	1.00	5.00	-.70	.09	-.11	.18
P01: Support/administrative staff	1.00	5.00	-.58	.09	-.40	.18
P05: Online learning resources	1.00	5.00	-.73	.09	.08	.18
P07: Physical infrastructure and facilities	1.00	5.00	-.39	.09	-.64	.18
P08: External lecturers from the industry	1.00	5.00	-.66	.09	-.14	.18
P11: Learning and instructional materials	1.00	5.00	-.68	.09	-.11	.18
P15: Psychosocial environment	1.00	5.00	-.75	.09	.06	.18
P02: Subjects taught	1.00	5.00	-.22	.09	-.50	.18
P04: Industrial attachment /internships	1.00	5.00	-.22	.09	-.90	.18
P10: Program duration/academic calendar	1.00	5.00	-.29	.09	-.56	.18
P13: Expected learner behaviour guidelines	1.00	5.00	-.26	.09	-.65	.18
P14: Academic field trips and tours	1.00	5.00	-.35	.09	-.69	.18

Table 3: Descriptive Statistics for Normality Test

Note: N = 770

4.1. Demographic Characteristics of the Respondents

4.1.1. Tourism Graduate Employee

The demographic characteristics of tourism graduate employees are summarized in Table 4. Table 4 shows that majority, 262 (68.1%), of the tourism graduate employees were male participants. The sample also consisted mainly young respondents 160 (41.6%) who were between 18 and 25 years. The least, 34 (8.8%) of the respondents were above 40 years. Majority, 128 (33.2%), of the respondents had studied things to do with travel operations while the least 24 (6.2%) had studied aspects of language translation. The sample was mainly comprised of certificate holders at 197 (51.2%) with 8.8% having advanced diploma. 90 (23.4%) were working in travel agency followed by 69 (17.9%) in tour operations. Most of the respondents 155 (40.3%) had three years or less since their graduation time while only 38 (9.9%) had more than 15 years since their graduation from college. Majority 136 (35.3%) had spent less than a year in their current job position. Only 1 (0.3%) had spent over 20 years in their current job position.

Variables	Frequency	Percent	Variables	Frequency	Percent
Age			Current job position		
18-25 Years	160	41.6	Travel Agent	90	23.4
25-30 Years	99	25.7	Tour Operator	69	17.9
30-35 Years	47	12.2	Tour Manager	35	9.1
35-40 Years	45	11.7	Excursion Agent	32	8.3
Above 40 Years	34	8.8	Tour Escort	28	7.3
Total	385	100.0	Tour Guide	44	11.4
			Marketing Officer	8	2.1
Area of study			Tour Reservationist	25	6.5
Travel Operation	128	33.2	Receptionist	13	3.4
Tour Operation	70	18.2	Customer Relations	13	3.4
Tourism Management	50	13.0	Driver	20	5.2
Travel & Tour Operation	39	10.1	Others	8	2.1
Driver Guide	74	19.2	Total	385	100.0
Language Translator	24	6.2			
Total	385	100.0	Years in current post		
			Less than 1 year	136	35.3
Academic qualification			1-5 years	112	29.1
Certificate	197	51.2	6-10 years	58	15.1
Advance Certificate	72	18.7	11-15 years	41	10.6
Diploma	82	21.3	16-20 years	37	9.6
Advance Diploma	34	8.8	Above 20 years	1	0.3
Total	385	100.0	Total	385	100.0
Years since graduation			Gender		
0-3 Years	155	40.3	Male	262	68.1
3-6 Years	98	25.5	Female	123	31.9
6-10 Years	50	13.0	Total	385	100.0
10-15 Years	44	11.4			
Above 15 Years	38	9.9			
Total	385	100.0			

Table 4: Demographic Profile of the Tourism Graduate Employees

4.1.2. Tourism Employers and Tourism Institutions

The demographic characteristics of tourism employers and the tourism institutions they work are summarized in Table 5. The table shows that majority, 142 (36.9%), of the respondents from the tourism employer were between 25 and 30 years old with the least of the respondents being above 40 years. Majority of the respondents, 239 (62.1%), were also male. Majority of the respondents, 223 (57.9%) were from tour companies, followed by travel agencies at 119 (30.9%) and the least, 16 (4.2%) being drawn from museums. Most of the respondents (180 (46.8%) were drawn from companies that had been in existence for ten or less years.

Variables	Frequency	Percent	Variables	Frequency	Percent
Respondents Age			Type of institution		
25-30 Years	142	36.9	Tour Companies	223	57.9
30-35 Years	101	26.2	Travel Agencies	119	30.9
35-40 Years	82	21.3	National Parks & Reserves	27	7.0
Above 40 Years	60	15.6	Museums	16	4.2
Total	385	100.0	Total	385	100.0
Company's age			Gender		
0-10 Years	180	46.8	Male	239	62.1
11-20 Years	89	23.1	Female	146	37.9
21-30 Years	51	13.2	Total	385	100.0
31-40 Years	45	11.7			
41-50 Years	7	1.8			
Over 50 Years	13	3.4			
Total	385	100.0			

Table 5: Demographic Profile of the Tourism Employers and Tourism Institutions

4.2. Factor Analysis Results

The factor analysis results indicated that the sample was adequate for conducting factor analysis given the KMO value of .95. The Bartlett's Test of Sphericity value recorded for all the variable sets was highly significant (i.e. $p < .01$) an indication that the R-matrices obtained were not identity.

On subjecting the 17 items to PAF, a three-factor solution explaining for 75.95% of the total variance resulted. The factor analysis results are summarised in Table 4. Communalities for all the 17 items were $> .50$ an indication that all the items loaded significantly on their respective factors. The first factor which was named 'Learning and Teaching Process' accounted for 28.60% of the variance explained. A total of six items loaded on this factor with all the loadings being $> .50$. The second factor, 'Learning Resources', accounted for 25.24% of the variance explained. Six items loaded highly on this factor. The third factor, 'Program Content Structure', had five items loading highly and it accounted for 22.12% of the variance explained.

4.3. Regression Analysis Results

To validate the identified factor models ('Learning and Teaching Process', 'Learning Resources' and 'Program Content Structure'), multiple regression analysis was conducted. Factor scores of the different factors derived in factor analysis were entered as dependent variables with their constituent variables as independent variables. Three significant models resulted (using enter and backward method). These included 'Learning and Teaching Process' model ($F_{6, 763} = 934.22, p = .00, \text{adjusted } R^2 = .88$), 'Learning Resources' model ($F_{6, 763} = 384.64, p = .00, \text{adjusted } R^2 = .75$), and 'Program Content Structure' model ($F_{5, 764} = 1570.01, p = .00, \text{adjusted } R^2 = .91$). The high values of adjusted Rsquared indicated that the data points were close to the values predicted by the multiple regression equation and that as a group the independent variables (constituent variables in a factor) were good predictors of the corresponding factors. Table 4 indicate that the six items that loaded highly ($> .70$) on 'Learning and Teaching Process' factor explained 88% of the variance in 'Learning and Teaching Process'. Regression analysis also indicate that all the items that loaded on 'Learning and Teaching Process' were highly significant predictors of the factor with exception of 'Individual assignments' ($\beta = -.03, t = -1.21, p = .23$) and 'Consultations with lecturers in office' ($\beta = .00, t = -.06, p = .95$) that did not significantly predict 'Learning and Teaching Process' factor. A similar situation is reflected in 'Learning Resources' factor model where all six items significantly predicted 'Learning Resources' factor with exception of 'Support/administrative staff' ($\beta = .04, t = 1.08, p = .28$) and 'External lecturers from the industry' ($\beta = .04, t = .98, p = .33$). All the items that loaded on 'Program Content Structure' factor significantly predicted 'Program Content Structure' factor model ($p < .05$).

Factors and Their Corresponding Variables	Factor Analysis Statistics					Regression Analysis Statistics							
	Com.	EV	FL	% variance	CV	Adj. R ²	F	df1	df2	Sig. FC	β	t-values	Sig.
Learning and Teaching Process		9.63		28.60	28.60	0.88	934.22	6	763	0.00			
P03: Assessment and feedback	0.73		0.81								0.14	5.98	0.00
P06: Quality of the teacher/lecturer/facilitator	0.84		0.87								0.34	12.50	0.00
P09: Learning context	0.85		0.87								0.24	8.13	0.00
P12: Teaching methodology	0.86		0.87								0.31	10.66	0.00
P16: Individual assignments	0.72		0.75								-0.03	-1.21	0.23
P17: Consultations with lecturers in office	0.69		0.74								0.00	-0.06	0.95
Learning Resources		2.62		25.24	53.83	0.75	384.64	6	763	0.00			
P01: Support/administrative staff	0.76		0.73								0.04	1.08	0.28
P05: Online learning resources	0.78		0.77								0.21	5.74	0.00
P07: Physical infrastructure and facilities	0.70		0.75								0.23	7.48	0.00
P08: External lecturers from the industry	0.79		0.74								0.04	0.98	0.33
P11: Learning and instructional materials	0.82		0.79								0.24	6.35	0.00

Factors and Their Corresponding Variables	Factor Analysis Statistics					Regression Analysis Statistics							
	Com.	EV	FL	% varian	CV	Adj. R ²	F	df1	df2	Sig. FC	β	t-values	Sig.
P15: Psychosocial environment	0.82		0.79								0.19	5.08	0.00
Program Content Structure		1.38		22.12	75.95	0.91	1570.01	5	764	0.00			
P02: Subjects taught	0.82		0.88								0.47	22.31	0.00
P04: Industrial attachment /internships	0.63		0.77								0.23	13.95	0.00
P10: Program duration/academic calendar	0.67		0.77								0.13	7.54	0.00
P13: Expected learner behaviour guidelines	0.74		0.81								0.19	9.92	0.00
P14: Academic field trips and tours	0.69		0.74								0.04	2.31	0.02

Table 6: Factor Analysis and Multiple Linear Regression Analysis Results

Note: Com. – Communalities; EV – Eigenvalues; FL – Factor Loadings; CV – Cumulative Variance; Adj. R² – Adjusted R Square; F – F-Statistics; Df – Degree Of Freedom; Sig.FC – Significance Of F Change; B – Standardised Regression Coefficients (Beta Values); Sig. - Significance

5. Discussions

The study set out to investigate on factors determining tertiary tourism education quality in Kenya from the perspectives of tertiary tourism graduate employees and tourism employers. The results indicated that three factors, namely 'Teaching and Learning Process', 'Learning Resources' and Program Content Structure' were perceived relevant in explaining tertiary tourism education quality. These are discussed in the subsequent sections.

5.1. Teaching and Learning Process

The factor analysis results indicated that 'Teaching and Learning Process' explained for the largest (28.60%) of the variance in perceived tertiary tourism education quality by tourism graduate employees and employers combined. Teaching and learning are a very critical elements in determining the outcome of education system. According to Olelewe et al. (2014), the process used in imparting knowledge matter a lot. This generally explains why 'Teaching and Learning Process' factor explained for the largest percentage of the variance in comparison to the other two factors. 'Teaching and Learning' was measured using six items that loaded highly on the factor. In validating the model measurement structure through multiple linear regression analysis, the results indicated that teaching and learning process was predicted significantly by four items namely 'Quality of the teacher or lecturer', 'Teaching methodology', 'Learning context' and 'Assessment and feedback', in that order of significance.

5.1.1. Quality of the Teacher

Quality of the teacher or lecturer turned out to be the most significant predictor of the 'Teaching and Learning Process' factor model ($\beta = .34$, $t = 12.50$, $p < .01$). Teaching and learning entail the process of engagement between the teacher or lecturer and the learner to enable their understanding and application of concepts, knowledge and processes. While teaching rest more with the lecturer, the learning rest with the learner though the learning process is facilitated by both the learner and the teacher. The teaching and learning process will depend partly on the quality of the teacher or the lecturer who determine the nature of the engagement process. The engagement process provides a platform for learners to interact with their teachers and lecturers. In this regard, lecturers' or teachers' attitude towards tourism, professional knowledge and qualities in what is being taught and general personality attributes would be important in determining the education quality as these would impact on the students' eventual outcome. This kind of argument generally support Arnon and Reichel (2007) findings who showed that students see two types of images of teachers: the image of an ideal teacher and own self-image as a teacher which eventually determine their education quality. It further corroborates arguments of Longanecker and Blanco (2003), who contend that education quality is based on who and how students are taught rather than by what students learn. It also supports findings of a number of researchers (Akareem & Hossain, 2012; Ashraf et al., 2009; Olelewe et al., 2014; Tsinidou et al., 2010) who found out that qualification of teaching staff was the most important factors affecting the perception of education quality. These implies that the quality of teachers in the teaching and learning process is more important in determining tourism education quality. The findings however deviates from Shen et al. (2015) results that faculty quality was the least important factor in predicting tourism education quality.

5.1.2. Teaching Methodology

Teaching methodology was the second most significant predictor of the 'Teaching and Learning Process' factor model ($\beta = .31, t = 10.66, p < .01$). Teaching methodology entails the mechanism employed by a teacher in organising and implementing a course or subject to achieve certain outcomes. Different approaches are used in the delivery and teaching of tourism subjects to the learners including lectures, demonstrations, case studies, among others. The findings generally suggest that no matter the approach used, teaching methodology significantly influence the teaching and learning process. This supports the works of Shahida (2011) and Al-Rawi (2013) who concluded that teaching methodology employed by a teacher affect the teaching and learning process and eventually the education quality.

5.1.3. Learning Context

Learning context on the other hand was the third most significant predictor of the 'Teaching and Learning Process' factor model ($\beta = .24, t = 8.13, p < .01$). Teaching and learning generally takes place in a context. The context in this case would include the learning environment. To effectively teach a particular subject not only requires a qualified teacher but combination of the teaching quality with suitable teaching methodology depending on what is being taught, the learning context and the quality of learners. The finding corroborates with those of previous researchers (Akareem & Hossain, 2012; Ashraf et al., 2009; Eze, 2009; Lizzio, Wilson & Simons, 2002). Akareem and Hossain (2012) and Ashraf et al. (2009), in particular, note learning environmental factors can play vital roles in determining the learning process and education quality.

5.1.4. Assessment and Feedback

The fourth most significant predictor of 'Teaching and Learning Process' factor model was assessment and feedback ($\beta = .14, t = 5.98, p < .01$). Assessment and feedback forms part of an effective learning process as it helps students understand subjects taught. It also helps both the teacher and the learner to develop clear strategies to improve on the learning process. These, in turn, will enhance their perceived education quality. This is in line with Al-Bashir, Kabir and Rahman (2016) and Grawemeyer et al., (2015), who suggests that effective feedback can provide information to teachers which can be used to shape the teaching process and improve students affective.

5.2. Learning Resources

The second most relevant factor to tertiary tourism education was 'Learning Resources' as evidenced by the percentage of the variance explained (25.24%) in factor analysis results. This generally contradicts findings of Shen et al. (2015) whose reported learning resources as the least important factor in determining tourism education quality. Learning resources significantly increases students' achievement as it supports the learning process hence outcome of the learning process. It allows students explore on tourism knowledge independently and facilitates individual learning process. 'Learning Resources' was also measured using six items that loaded highly on the factor. In validating the model measurement structure through multiple linear regression analysis, the results indicated that 'Learning Resources' was predicted significantly by four items namely 'Learning and instructional materials', 'Physical infrastructure and facilities', 'Online learning resources' and 'Psychosocial environment' in that order of significance.

5.2.1. Learning and Instructional Materials

'Learning and instructional materials' was the most significant predictor of the 'Learning Resources' factor model ($\beta = .24, t = 6.35, p < .01$). Instructional materials are important in transferring essential knowledge or skills to learners since it enables them to acquire factual ideas and develop professional career. Learning and instructional materials for tourism courses include course outlines, scripts, modules, reference materials, manuals, lecture notes, teaching aids and template guidance that learners use to conduct tasks practically. These materials generally ensure that course or program delivery is done in a manner that prompts students to take an active role in the learning process. This supports the European Universities Association (2015) who share a similar thought that learning institutions should ensure that their programs are delivered in a way that encourages students to take an active role in creating the learning process by including materials that encourages individual learning.

5.2.2. Physical Infrastructure and Facilities and Online Learning Resources

'Physical infrastructure and facilities' were the second most significant predictor of the 'Learning Resources' factor model ($\beta = .23, t = 7.48, p < .01$). 'Online learning resources' was the third most significant predictor of the 'Learning Resources' factor model ($\beta = .21, t = 5.74, p < .01$). Effective tourism learning requires adequate infrastructures and facilities in place including classroom, libraries, equipment, broadband infrastructure and other relevant facilities. Given the transformative influence of technology on tourism education and the tourism industry at large, online learning resources supplements available tangible resources for learning and would encourage self-regulated learning. According to Internet and Society (2017), learners' accessibility to the internet would open doorways to a wealth of tourism information, knowledge and educational resources, in the case for tertiary tourism education. This would in turn increase opportunities for learning in and beyond the classroom (Internet and Society, 2017).

5.2.3. Psychosocial Environment

The fourth most significant predictor of 'the 'Learning Resources' factor model ($\beta = .19, t = 5.08, p < .01$). Quality tourism education requires a conducive learning environment. Proper learning cannot take place without conducive

psychological and social factors that determine learner's ability to absorb what is being taught and eventually put them into practice in their workplace. The psychosocial environment in this case relates to the experiential aspects of learning process brought about by thoughts, emotions, behaviours and social experiences which in turn affect tourism education quality outcomes. Therefore, providing a quality learning environment free from physical, social and psychological insecurity would create a conducive environment for teaching and learning. The findings generally support Lizzio et al. (2002) and Eze (2009) who explored that for any meaningful learning to occur, the environment must be conducive for such learning. It further supports findings of Akareem and Hossain (2012) and Ashraf et al. (2009) who showed that learning environmental factors can play vital roles in determining education quality.

5.3. Curriculum Structure

The least most relevant factor to tertiary tourism education was 'Curriculum Structure' given that it accounted for least (22.12%) of the variance explained among the three resulting factors. The findings contradict that of Shen et al. (2015) who found curriculum and instruction as the most important contributor to quality education. 'Curriculum Structure' was measured using five items that loaded highly on the factor. In validating the model measurement structure through multiple linear regression analysis, the results indicated that 'Curriculum Structure' was predicted significantly by all the five items namely 'Subjects taught', 'Industrial attachment /internships', 'Expected learner behaviour guidelines', 'Program duration/academic calendar' and 'Academic field trips and tours' in that order of significance.

5.3.1. Course Content and Subjects Taught

'Subjects taught' was the most significant predictor of the 'Curriculum Structure' factor model ($\beta = .47$, $t = 22.31$, $p < .01$). Teaching tourism should focus on the needs of the industry implying that the tourism subjects or courses included in the tourism curriculum should be relevant for the industry. The subjects should be tailored to equip learners with skills, knowledge and competency that would ensure their effective work performance in the industry. Both the needs of the learners and the industry should be taken into consideration when structuring tourism curriculum. The findings generally support Mayaka and King (2002) who comment that tourism training and education should consciously address the needs of the locally based industry by including relevant content and subjects when developing the tourism curriculum.

5.3.2. Expected Learner Behaviour Guidelines

'Expected learner behaviour guidelines' was the third most significant predictor of the 'Curriculum Structure' factor model ($\beta = .19$, $t = 9.92$, $p < .01$). Every learning institution including tertiary tourism education institutions requires learners to behave in particular way and follow prescribed code of conduct within the institutions. The curriculum structure should include the code of conduct and rules as to how both teachers and learners should behave. These behaviours are governed by set rules and code of conducts which are requirements for discipline (Leung & Lee 2006). Discipline among learners generally develops a sense of personal responsibility which in turn establishes a sense of order and self-control in the life of the learner (De Waal, 2011) and this could be carried on to their workplace. Learner behaviour guidelines also inform the values that learners could internalise which intern would impact teaching and learning (Smit, 2010).

5.3.3. Program Duration/Academic Calendar

The fourth most significant predictor of 'Curriculum Structure' factor model was 'Program duration/academic calendar' ($\beta = .13$, $t = 7.54$, $p < .01$). Program duration and academic calendar determines the length of contact between the teachers and learners. Most of the tertiary tourism programs in Kenya are run on a trimester basis thereby allowing for more contact hours between teachers and learners and this in turn enhances the learning process unlike when learners are allowed to go on long vacation. The long vacation however may provide room for learners to attach themselves to tourism institutions and gain the practical and hands on skills from the industry.

5.3.4. Industrial Attachment /Internships and Academic Field Trips and Tours

'Industrial Attachment /Internships' was the second most significant predictor of the 'Curriculum Structure' factor model ($\beta = .23$, $t = 13.95$, $p < .01$). Industrial attachment or internships provides the learner with a feel of how the tourism industry operates and the kinds of skills required to work in the industry effectively. It provides a link between the tertiary tourism education institutions and the industry. Learners are bound to perceive tourism education quality if they can cope with the industry requirements easily without getting any major challenges. The industrial attachment can make them get to know the areas they need to improve on prior to joining the industry and also helps them give positive feedback to their training institutions on the areas to improve on. The least significant predictor of 'Curriculum Structure' factor model was 'Academic field trips and tours' ($\beta = .04$, $t = 2.31$, $p < .05$). Academic field trips and tours provides learners with a totally new context from the normal learning context. It exposes them to aspects of the industry and what is expected of them by the industry. This enhances their learning as it fosters interest by students on certain subjects, knowledge and competencies based on their interest areas. The findings of this study are in line with previous researches (Bonderup Dohn, 2011; Nadelson & Jordan, 2012) who contend that fieldtrips and industrial attachment offer valuable learning experience away from the normal classroom setup.

6. Conclusions

The study set out to identify factors determining tertiary tourism education quality in Kenya by taking into consideration the perspectives of tourism graduate employees and tourism employers. Three factors were identified namely 'Teaching and Learning Process', Learning Resources' and 'Curriculum Structure' in that order of importance. Within the 'Teaching and Learning' factor, four tourism education attributes namely Quality of the teacher or lecturer, teaching methodology, learning context and assessment and feedback, in that order of significance. 'Learning resources' was predicted significantly by four items namely Learning and instructional materials, Physical infrastructure and facilities, Online learning resources and Psychosocial environment in that order of significance. 'Curriculum Structure' on the other hand was predicted significantly by five items namely subjects taught, industrial attachment /internships, expected learner behaviour guidelines, program duration/academic calendar and academic field trips and tours in that order of significance. The findings provide insightful information to the tertiary tourism institutions in Kenya on the specific attributes of the tourism program development for providing quality training outcomes.

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