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Bojan Krstić[1]
University of Niš, Faculty of Economics

Vladimir Radivojević[2]
Ministry of Defense, Serbian Armed Forces

Tanja Stanišić[3]
University of Kragujevac,
Faculty of Hotel Management and Tourism in Vrnjačka Banja

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TOURISM INDUSTRY AND NATIONAL COMPETITIVENESS: A SUB-SAHARAN AFRICA COUNTRIES PERSPECTIVE

Abstract

The purpose of this paper is to analyse the contribution of competitiveness of the tourism industry on the global competitiveness of 31 sub-Saharan Africa (SSA) countries. The aim is to identify the correlation between the achieved travel & tourism competitiveness level measured by the Travel & Tourism Competitiveness Index (TTCI) and global competitiveness level measured by the Global Competitiveness Index (GCI) in SSA countries. The research is made by applying descriptive statistics, correlation, regression, cluster, and comparative analysis. Research results indicate that there is a strong positive correlation between the GCI and the TTCI, as well as the positive impact of TTCI on GCI in the observed group of countries. The conclusions of this paper provide recommendations to tourism policy-makers in SSA countries.

Key words: *tourism, competitiveness, sub-Saharan Africa countries*

JEL classification: L83, N17

ИНДУСРИЈА ТУРИЗМА И НАЦИОНАЛНА КОНКУРЕНТНОСТ: ПЕРСПЕКТИВА ЗЕМАЉА ПОДСАХАРСКЕ АФРИКЕ

Апстракт

Циљ овог рада је да анализира утицај конкурентности индустрије туризма на глобалну конкурентност 31 земље Подсахарске Африке (ССА). Циљ је да се идентификује корелација између достигнутог нивоа конкурентности сектора туризма и путовања мереног Индексом конкурентности путовања

[1] bojan.krstic@eknfak.ni.ac.rs

[2] vladimir.radivojevic@ymail.com

[3] tanja.stanisic@kg.ac.rs

и туризма (ТТЦИ) и глобалног нивоа конкурентности мереног Индексом глобалне конкурентности (ГЦИ) у земљама ССА. Истраживање се врши применом дескриптивне статистике, корелационе, регресионе, кластерске и компаративне анализе. Резултати истраживања показују да постоји јака позитивна корелација између ГЦИ и ТТЦИ, као и позитиван утицај ТТЦИ на ГЦИ у посматраној групи земаља. Закључци овог рада пружају препоруке креаторима политике развоја туризма у ССА земљама.

Кључне речи: *туризам, конкурентност, земље Подсахарске Африке*

Introduction

Travel & tourism (T&T) sector is a significant tool in economic growth and job creation all over the world. According to World Travel & Tourism Council (2015), this sector generated US$7.6 trillion (10% of global GDP) and 277 million jobs (1 in 11 jobs) for the global economy in 2014. This is the reason why the T&T sector is considered as a power vehicle (Rhodri & Long, 1999; World Bank, 2015) and an agent (Page & Connel, 2009; Sharpley, 2015) or even locomotive (Popescu, 2014) and major driver (Bimonte & Punzo, 2016) of economic and social development. The impact of T&T sector on the economic and social development of a country can be huge, because there are several components of socio-economic development on which this sector affect positively (World Travel & Tourism Council, 2015): opening it up for business, trade and capital investment, making jobs and entrepreneurialism for the workforce and protecting heritage and cultural values.

According to World Economic Forum (2015), T&T in sub-Saharan Africa (SSA) has substantial potential for development. Wealth of natural resources and the potential of cultural resources are the key factors of competitive advantages of SSA region. Data from the World Travel & Tourism Council (2015) indicate significant contribution of T&T to GDP, employment and investment in the SSA region. For example, the direct contribution of T&T to GDP was 2.6% of total GDP in 2014. Also, in 2014 this sector directly supported 5,972,000 jobs (2.5% of total employment), while T&T investment was 5.5% of total investment.

However, the SSA region has a small part of the global tourism marketplace. SSA countries received only 3.2% of international tourist arrivals in 2014 (World Tourism Organization, 2015). Also, the SSA „is still mostly in the early stages of development and strongly connected with more general and longstanding development challenges, including infrastructure as well as health and hygiene" (World Economic Forum, 2015, p. 20). Such position of the region indicates that the potential for tourism growth is significant.

The development of the SSA countries in the future and the progress of the achieved level of competitiveness is based on all factors and resources that lead to the tourism sector development. For that purpose, the aim of this paper is to analyse achieved level of T&T competitiveness in SSA countries, and emphasize the relevance of a T&T competitiveness improvement onto national competitiveness. Also, an important

goal of the paper is to find the factors that are critical for T&T competitiveness in the SSA countries, ie. to find the pillars of T&T competitiveness that must have priority in development policy in the coming period. The results of this analysis should give guidance to policy-makers in setting development strategies and programs in the process of improving T&T sector in SSA countries.

The first section provides a theoretical background and literature review. Research methodology and hypothesis are shown in section two. Research results are discussed in section four. The final section provides conclusions.

Theoretical background and literature review

The concept of global competitiveness is very popular in the analysis of T&T performances of national economies. Measuring and comprehension the global T&T competitiveness of a country is a key prerequisite for policy makers and a significant challenge for researchers in the process of decision making. Dupeyras & MacCallum (2013, p. 7) believe that „tourism competitiveness for a destination is about the ability of place to optimize its attractiveness for residents and non-residents, to deliver quality, innovative, and attractive (e.g. providing good value for money) tourism services to consumers and to gain market shares on the domestic and global marketplaces, while ensuring that the available resources supporting tourism are used efficiently and in a sustainable way". Tourist destination means „countries or a collection of countries, a distinct state, country or province, or in fact represents a local city, town or resort, a national part, an area of outstanding natural beauty of coastline" (Cooper, Fletcher, Fyall, Gilbert & Wanhill, 2008, p. 475). Under constant competitive pressure in a global market, tourist destinations are constantly looking for ways to increase their competitiveness (Crouch & Ritchie, 1999; Ritchie & Crouch, 2003; Cîrstea, 2014). Through appropriate development strategy and proper competitive positioning of destination, a successful tourism industry can lead to regional economic development, as well as being a source of extensive foreign exchange profit.

Because of its great importance on economic and social development, there are numerous studies on the T&T competitiveness of destinations worldwide. Dwyer, Forsyth & Rao (2000) examine the price competitiveness of 19 tourism destinations using Australia as a base country. Skerritt & Huybers (2005) analyse the impact of international tourism on economic development in 37 developing countries, finding a positive correlation between these categories. Hye & Khan (2005) test tourism-led growth hypothesis in Pakistan and „confirm the long-run relationship between income from tourism and economic growth" (p. 303). The study of Zhang & Jensen (2007) suggests that there are parallels between tourism and international trade flows. Similar as Hye & Khan (2005), Tang & Tan (2015) examine the „tourism-led growth hypothesis in Malaysia" and find that „tourism is an effective long-term engine of growth" (p. 1430). Krstić, Radivojević & Stanišić (2016) analyze the competitiveness determinants of the T&T sector in Central and East Europe countries and indicate critical competitiveness pillars for each country.

The competitiveness of the T&T sector in African countries is also present in the empirical studies worldwide. For example, the study of Carlisle, Kunc, Jones & Tiffin (2013) emphasis innovation for tourism development through multi-stakeholder

approaches in Africa. Ayikoru (2015) analyses destination competitiveness challenges in the realisation of a country's tourism potential using Uganda as an exemplar. Krstić, Jovanović, Janković-Milić & Stanišić (2016) examine the T&T competitiveness contribution to the national economy competitiveness of sub-Saharan Africa countries. From a large body of these studies, it is possible to identify the great potential for development of the T&T sector in Africa, particularly in SSA region.

Research methodology and hypothesis

The purpose of this research is to analyse the contribution of competitiveness of the tourism industry on the global competitiveness of SSA countries. The aim is to identify the correlation between the achieved travel & tourism competitiveness level measured by the Travel & Tourism Competitiveness Index (TTCI) and global competitiveness level measured by the Global Competitiveness Index (GCI) in SSA countries. In accordance with the purpose of research, the authors tested the following hypotheses:

H1: *There is the positive correlation between the GCI and the TTCI in SSA countries.*

H2: *There is the positive correlation between the GCI and pillars within the TTCI in SSA countries.*

H3: *The achieved level of the T&T competitiveness in SSA countries has a significant influence on the level of global competitiveness of SSA countries.*

H4: *There is no homogeneity among SSA countries in terms of impact of pillars within TTCI on GCI.*

The research is based on data retrieved from the official periodical publications of *The World Economic Forum (WEF)*: *The Global Competitiveness Report 2013-2014* and *The Travel & Tourism Competitiveness Report 2013*.

The methodology for measuring the competitiveness of countries (*The Global Competitiveness Report 2013-2014*) systematizes the key competitiveness factors into three subindexes and twelve pillars: (1) Basic factors (P1. Institutions; P2. Infrastructure; P3. Macroeconomic stability; and P4. Health and primary education); (2) Efficiency factors (P5. Higher education; P6. Goods market efficiency; P7. Labour market efficiency, P.8 Financial market development; P9. Technological competence/capacity; and P10. Market size); and (3) Innovation factors (P11. Business/business process sophistication; and P12. Innovation). The value of the GCI is the result of measuring many indicators within the each above-mentioned pillars.

The methodology for measuring the T&T competitiveness (*The Travel & Tourism Competitiveness Report 2013*) systematizes the key competitiveness factors into three subindexes and fourteen pillars: (1) T&T regulatory framework (P1. Policy rules and regulations; P2. Environmental sustainability; P3. Safety and security; P4. Health and hygiene; and P5. Prioritization of T&T); (2) T&T business environment and infrastructure (P6. Air transport infrastructure; P7. Ground transport infrastructure; P8. Tourism infrastructure; P9. ICF infrastructure; and P10. Price competitiveness in the T&T industry); and (3) T&T human, cultural, and natural resources (P11. Human resources; P12. Affinity for T&T; P13. Natural resources; and P14. Cultural resources). The value of the TTCI is the unweighted average of the value of above-mentioned subindexes.

In order to test the hypothesis, following research methods are used in the paper: descriptive statistics, correlation, regression, cluster, and comparative analysis.

Research results and discussion

Analysis of SSA countries'competitiveness according to the GCI and the TTCI

Analysis of SSA countries' competitiveness is based on data about rank and score of the GCI and TTCI. Table 1 shows the position of SSA countries according to rank and score of the GCI for 2013, as well, the average score. The *WEF,* in The Global Competitiveness Report 2013-2014, analysed and ranked total 148 countries according to the GCI.

Table 1: The rank and the score of the GCI for SSA countries according to The Global Competitiveness Report 2013-2014

Country	Rank of country in SSA region	GCI score (1-7)	GCI overall rank
Seychelles	5	4.10	80
Mauritius	1	4.45	45
South Africa	2	4.37	53
Cape Verde	14	3.53*	122
Namibia	6	3.93	90
Gambia	12	3.67	116
Botswana	4	4.13	74
Kenya	8	3.85	96
Rwanda	3	4.21	66
Senegal	9	3.70	113
Zambia	7	3.86	93
Tanzania	19	3.50*	125
Uganda	21	3.45*	129
Ghana	10	3.69	114
Zimbabwe	22	3.44*	131
Swaziland	16	3.52*	124
Ethiopia	18	3.50*	127
Cameroon	11	3.68	115
Malawi	25	3.32*	136
Mozambique	26	3.30*	137
Cote D'Ivoire	17	3.50*	126
Nigeria	13	3.57	120
Burkina Faso	27	3.21*	140
Mali	24	3.33*	135
Benin	20	3.45*	130
Madagascar	23	3.42*	132
Lesotho	15	3.52*	123
Guinea	30	2.91*	147
Sierra Leone	28	3.01*	144
Burundi	29	2.92*	146
Chad	31	2.85*	148
Average	-	3.57	-
Note: Symbol * indicates the value which is below the average score of the SSA countries.			

Source: WEF, The Global Competitiveness Report 2013-2014

Based on Table 1, it can be concluded that Mauritius has the largest score of the GCI (4.45), followed by South Africa (4.37), and Rwanda (4.21). Other countries record relatively uniform values. The lowest scores of the GCI are recorded in Chad, Guinea, and Burundi. The differences are more drastic if we observe ranks of SSA countries on the world list of countries. The best positioned SSA country is Mauritius on the 45th place out of the 148 countries analysed by the *WEF*, while the worst positioned SSA country is Chad, on the 148th place. The average value of the GCI scores of analysed group of countries is 3.57. Table 1 shows that 18 out of 31 countries have a lower GCI score in relation of the average score for the SSA group of countries. In recognition of the fact that the *WEF* ranked total 148 countries, it can be concluded that, except of Mauritius, South Africa, Rwanda, and Botswana, all other SSA countries are located in the second half of the world list according to the GCI score.

Table 2 displays the average scores of 12 pillars within the GCI for SSA countries.

Table 2: The score of 12 pillars within the GCI for SSA countries according to The Global Competitiveness Report 2013-2014

Country	Institution	Infrastructure	Macroeconomic environment	Health and primary education	Higher education and training	Goods market efficiency	Labor market efficiency	Financial market development	Technological readiness	Market sizes	Business sophistication	Innovation	Number of pillars in which particular country records a lower score in relation to the average score of the SSA group of countries
Seychelles	4.33	4.64	4.43	5.90	4.13	4.36	4.69	3.87	3.87	1.46*	4.06	3.32	1
Mauritius	4.58	4.44	4.82	6.01	4.32	4.85	4.45	4.73	3.90	2.80	4.40	3.11	0
South Africa	4.53	4.13	4.39	3.89*	3.94	4.75	3.93*	5.80	3.92	4.89	4.49	3.64	2
Cape Verde	3.93	2.79*	3.67*	5.68	3.71	3.91*	3.74*	3.32*	3.34	1.30*	3.44*	2.83*	8
Namibia	4.22	4.20	4.67	4.43	3.12	4.10	4.39	4.51	3.34	2.66*	3.65	3.02	1
Gambia	4.42	3.43	3.49*	3.95*	3.48	4.07	4.53	3.86	3.09	1.55*	4.00	3.22	3
Botswana	4.67	3.43	5.76	4.55	3.56	4.10	4.51	4.34	3.11	3.03	3.61	2.99	0
Kenya	3.62*	3.24	3.64*	4.52	3.54	4.21	4.62	4.68	3.36	3.58	4.09	3.56	2
Rwanda	5.20	3.20	4.41	5.37	3.00	4.52	5.06	4.23	3.10	2.46*	3.89	3.44	1
Senegal	3.69	2.78*	4.41	4.17*	3.14	4.33	4.33	3.72*	3.26	2.94	3.85	3.18	3
Zambia	4.20	2.76*	4.56	4.41	3.05	4.61	4.12*	4.45	2.97	2.80	4.05	3.36	2
Tanzania	3.55*	2.30*	3.65*	4.64	2.54*	3.89*	4.49	3.72*	2.70*	3.59	3.50*	3.06	8
Uganda	3.33*	2.31*	3.64*	4.35	2.72*	3.88*	4.69	3.90	2.82*	3.28	3.55*	3.04	7
Ghana	3.89	3.03	3.08*	4.48	3.42	4.28	4.14*	4.36	3.21	3.67	3.85	3.27	2
Zimbabwe	3.50*	2.59*	4.01*	4.55	2.95*	3.66*	3.40*	3.56*	2.98	2.12*	3.30*	2.68*	10
Swaziland	3.83	3.34	4.54	3.57*	3.09	4.05	4.01*	4.03	2.72*	2.03*	3.72	2.83*	5
Ethiopia	3.58*	2.61*	3.81*	4.67	2.55*	3.56*	3.99*	3.32*	2.47*	3.74	3.21*	2.76*	10
Cameroon	3.35*	2.49*	4.92	4.43	3.25	4.03	4.19*	3.59*	2.80*	3.26	3.60	3.11	5
Malawi	3.81	2.21*	2.85*	4.43	2.65*	3.90*	4.59	3.96	2.40*	2.50*	3.50*	2.90*	8
Mozambique	3.30*	2.38*	4.34	3.67*	2.34*	3.80*	3.80*	3.13*	2.77*	2.96	3.20*	2.63*	10
Cote D'Ivoire	3.40*	3.13	4.21	3.25*	3.03	3.91*	4.32	3.76	3.03	3.17	3.37*	3.00	4
Nigeria	3.08*	2.29*	5.17	3.04*	3.03	4.09	4.48	4.04	3.08	4.66	3.89	3.00	3
Burkina Faso	3.34*	2.13*	4.44	3.24*	2.39*	3.73*	4.19*	3.17*	2.41*	2.79	2.97*	2.86*	10
Mali	3.02*	3.05	4.44	3.05*	2.55*	3.93*	3.96*	3.38*	2.91*	2.63*	3.52*	3.00	9
Benin	3.36*	2.40*	4.31	4.53	2.95*	3.47*	4.11*	3.33*	2.55*	2.51*	3.23*	2.84*	10
Madagascar	3.09*	2.26*	4.18*	4.52	2.66*	4.07	4.60	2.93*	2.63*	2.73*	3.53*	3.09	8
Lesotho	3.61*	2.56*	5.35	3.56*	2.88*	4.22	4.17*	3.43*	2.45*	1.94*	3.20*	2.47*	10
Guinea	3.06*	1.73*	3.11*	3.59*	2.42*	3.54*	4.28	2.97*	2.43*	2.44*	2.97*	2.40*	11
Sierra Leone	3.62*	2.13*	3.32*	2.74*	2.36*	3.97*	4.09*	3.46*	2.65*	2.19*	3.30*	2.56*	12
Burundi	2.78*	1.92*	3.67*	4.21	2.03*	3.39*	3.84*	2.33*	2.20*	1.71*	2.80*	2.31*	11
Chad	2.54*	1.71*	4.95	2.58*	2.09*	2.83*	3.76*	2.78*	2.09*	2.77*	2.81*	2.41*	11

Average score of the SSA group of countries	3.69	2.83	4.20	4.19	3.00	4.00	4.24	3.76	2.92	2.78	3.57	2.96	-
Numbers of SSA countries which record a lower score in relation to the average score of the SSA group	18	19	13	13	15	15	16	16	16	16	17	13	

Legend: * Indicates that the value is below the average score of SSA group of countries.
Source: WEF, The Global Competitiveness Report 2013-2014

The last column of Table 2 shows the number of pillars which particular country records a lower score in relation to the average score of the SSA countries. In other words, we can find the critical (problematic) GCI pillars in each SSA country in that way. Each country needs to make the improvements in identifying critical pillars, as the GCI competitiveness factors. This analysis can show in which pillar SSA countries, partially observed, have to perform improvements with the aim to reach the average score of the SSA group of countries. In that sense, the worst performances are recorded in Sierra Leone (negative deviation from the average value in 12 pillars); Guinea, Burundi, Chad (in 11 pillars); Zimbabwe, Ethiopia, Mozambique, Benin, Burkina Faso, Lesotho (in 10 pillars); Mali (in 9 pillars); Cape Verde, Tanzania, Madagascar (in 8 pillars); Uganda (in 7 pillars), Cameroon, Swaziland (in 5 pillars); Cote D'Ivoire (in 4 pillars); Gambia, Senegal, and Nigeria (in 3 pillars).

Mauritius recorded the best result, since this country did not record a lower score in relation to the average score of the SSA group of countries in the case of all 12 pillars. This country is immediately followed by Seychelles, Namibia, and Rwanda (deviation from the average value in 1 pillar), and South Africa, Kenya, Zambia, Ghana (deviation from the average value in 2 pillars).

The last row of Table 2 shows the numbers of SSA countries which record a lower score in the particular pillar in relation to the average score of the SSA group. The Institution pillar, Infrastructure pillar, and Business sophistication pillar are problematic for a large number of SSA countries. SSA countries show the best result in regard with Macroeconomic environment, Health and Primary education, and Innovation pillar.

The general view is that the average value of pillars within the GCI is significantly lower in the relation of the maximum possible score which amounts 7. It brings to conclusion that SSA countries have many possibilities for improvement of their performances that influence on the GCI competitiveness level on the world rank list.

Table 3 shows the position of the SSA countries, according to rank and score of the TTCI. The *WEF* analysed and ranked total 140 countries in the TTCI list in *The Travel & Tourism Competitiveness Report 2013*.

Table 3: Rank and score of the TTCI for SSA countries according to The T&T Competitiveness Report 2013

Country	Rank of country in SSA region	TTCI overall rank	TTCI score (1-7)
Seychelles	1	38	4.51
Mauritius	2	58	4.28
South Africa	3	64	4.13
Cape Verde	4	87	3.87
Namibia	5	91	3.77
Gambia	6	92	3.73
Botswana	7	94	3.71
Kenya	8	96	3.66
Rwanda	9	105	3.56
Senegal	10	107	3.49
Zambia	11	108	3.46
Tanzania	12	109	3.46
Uganda	13	116	3.39
Ghana	14	117	3.39
Zimbabwe	15	118	3.33*
Swaziland	16	119	3.31*
Ethiopia	17	120	3.29*
Cameroon	18	121	3.27*
Malawi	19	124	3.22*
Mozambique	20	125	3.17*
Cote D'Ivoire	21	126	3.15*
Nigeria	22	127	3.14*
Burkina Faso	23	128	3.12*
Mali	24	129	3.11*
Benin	25	130	3.09*
Madagascar	26	131	3.09*
Lesotho	27	135	2.89*
Guinea	28	136	2.88*
Sierra Leone	29	137	2.87*
Burundi	30	138	2.82*
Chad	31	139	2.61*
Average	-	-	3.38
Note: Symbol * indicates the value which is below the average score of the SSA countries.			

Source: WEF, The T&T Competitiveness Report 2013

Seychelles records the highest score of the TTCI among SSA countries (4.51), immediately followed by Mauritius (4.28). Countries with the lowest score of the TTCI are Burundi (2.82) and Chad (2.61). The best-placed SSA country in the world rankings, Seychelles, is located at 38th position out of 140 analysed countries, while the weakest positioned Chad lags behind Seychelles by 101 positions, situated in 139st place on the world list. The average value of TTCI scores for SSA region is 3.38.

Table 3 shows that 17 out of 31 countries have a lower TTCI score in relation to the average score of the SSA group of countries. In recognition of the fact that the *WEF* ranked total 140 countries, it can be concluded that, except of Seychelles, Mauritius, and South Africa, all other SSA countries are located in the second half of the world list according to the TTCI score.

The results of descriptive statistics follow in the second step of this analysis.

The minimum score of the GCI in countries of SSA region is 2.85, maximum is 4.45, standard deviation is 0.40268 and variation coefficient is 11.26%, while the average score is 3.57.

The minimum score of the TTCI in countries of SSA region is 2.61, maximum 4.51, standard deviation is 0.43136, variation coefficient is 12.76% and the average score is 3.38.

Furthermore, very similar results of the standard deviation for the GCI and the TTCI are recorded. There is greater variability and heterogeneity of the sample countries in terms of the T&T development in relation to the variability and heterogeneity of countries in terms of national competitiveness. This is confirmed also by calculation of the variation coefficient for the TTCI and for the GCI.

In order to assess the achievements of the SSA group of countries in each pillar, the average scores of 14 pillars within the TTCI are presented in Table 4 according to *The T&T Competitiveness Report 2013*. The Environmental sustainability pillar records the highest average value (4.59), followed by Affinity for T&T pillar with the average score of 4.54, Price competitiveness in the T&T pillar with the average score of 4.46, Policy rules and regulations with the average score of 4.15, and Safety and security pillar with the average score of 4.03. Bearing in mind that the maximum value of the pillar is 7.00, the SSA countries have many possibilities for improvement performance that determine the competitive position of their T&T industry.

The last row of Table 4 shows the numbers of SSA countries which record a lower score of the TTCI pillar in relation to the average score of the SSA group. The Air transport infrastructure, Affinity for T&T, Ground transport infrastructure, Tourism infrastructure, and Health and hygiene pillar are problematic for a large number of SSA countries (20 out of 31 countries).

Namely, Health and hygiene, Tourism infrastructure, and Ground transport infrastructure are identified as problematic and need corrective action in 19 out of 31 analysed countries. Cultural resources and ICT infrastructure are critical in 18 countries. Human resources are identified as a critical in 17 countries. Fifteen countries have to improve initiatives in the case of the following pillars: Policy rules and regulations, Environmental sustainability, Natural resources, prioritization of T&T, Price competitiveness in the T&T industry, and Natural resources.

When it comes to deviation from the average score of the SSA group (the latest row of Table 4), SSA countries show the best result in regard with Safety and security.

Table 4: The score of pillars within the TTCI for SSA countries according to The T&T Competitiveness Report 2013

Country	P1. Policy rules and regulations	P2. Environmental sustainability	P3. Safety and security	P4. Health and hygiene	P5.Prioritization of Travel & Tourism	P6. Air transport infrastructure	P7. Ground transport infrastructure	P8. Tourism infrastructure	P9. ICT infrastructure	P10. Price competitiveness in the T&T industry	P.11 Human resources	P12. Affinity for T&T	P13. Natural resources	P14. Cultural resources	Number of pillars which record a lower score in relation to the average score of the SSA group of countries
Seychelles	4.66	4.57*	4.32	5.01	6.12	4.47	4.81	5.24	3.47	3.76*	4.96	5.86	3.71	2.50	2
Mauritius	5.01	4.49*	5.34	4.85	6.12	3.25	4.60	4.68	3.19	4.48*	5.03	5.75	2.23*	1.60	2
South Africa	4.99	4.74	3.80*	4.20	4.46	3.97	3.79	4.53	2.82	4.55	3.45*	4.85	5.13	2.70	2
Cape Verde	4.86	4.71	4.36	3.58	4.74	3.85	3.53	4.31	2.56	4.35*	4.81	5.43	1.85*	1.72	2
Namibia	4.55	5.00	4.27	3.30	4.39	3.24	3.91	3.84	2.44	4.66	3.52*	4.51*	4.13	1.35*	2
Gambia	4.54	5.01	4.41	3.33	5.21	2.76	4.17	1.65*	2.10	5.67	4.25	5.23	2.78*	1.47*	3
Botswana	4.44	4.71	4.68	3.70	4.35	2.65	3.25	2.97	2.44	5.22	3.57*	4.30*	4.26	1.61	2
Kenya	4.26	5.23	3.19*	1.87*	5.35	2.83	3.23	2.37	2.18	4.31*	4.29	4.73	5.26	1.75	3
Rwanda	5.43	5.54	4.92	2.44*	3.97	2.44*	4.06	1.35*	1.25*	4.63	4.26	4.89	3.73	1.07*	5
Senegal	3.99*	4.43*	4.40	2.37*	4.37	2.58	3.01*	2.71	2.18	3.72*	4.00	4.76	4.07	1.99	5
Zambia	4.96	5.01	4.67	2.29*	3.60*	2.38*	3.17	1.73*	1.94*	4.23*	3.79*	4.36*	4.76	1.49*	9
Tanzania	4.43	4.89	3.70*	1.12*	4.23	2.23*	2.85*	1.69*	1.80*	4.83	4.01	4.53*	5.86	1.66	7
Uganda	4.39	4.76	3.64*	2.12*	3.64*	2.23*	2.89*	1.69*	1.87*	4.83	4.10	4.79	4.82	1.33*	8
Ghana	4.41	4.91	4.25	2.31*	3.42*	2.35*	3.25	2.39	2.26	4.48	4.27	4.26*	3.35*	1.51*	6
Zimbabwe	3.04*	4.59	4.26	2.74	3.74*	2.06*	3.11*	1.93*	2.13	4.58	3.32*	4.34*	4.91	1.66	7
Swaziland	4.27	4.55*	4.30	2.82	4.17	2.11*	3.66	2.16*	2.03	4.86	2.94*	4.38*	2.71*	1.74	6
Ethiopia	3.35*	4.36*	4.34	2.44*	3.49*	2.65	2.78*	1.32*	1.44*	5.09	3.71*	4.16*	4.52	2.06	9
Cameroon	3.96*	4.18*	4.09	2.72	2.97*	2.23*	2.85*	2.08*	1.88*	4.37*	4.23	4.32*	4.53	1.15*	10
Malawi	3.77*	4.77	4.28	2.88	3.16*	1.86*	2.96*	1.53*	1.61*	4.43*	3.75*	4.16*	4.36	1.43*	10
Mozambique	4.32	4.77	3.63*	1.26*	4.20	2.25*	2.42*	2.34*	1.65*	4.05*	3.20*	4.22*	3.71	1.48*	10
Cote D'Ivoire	3.69*	4.28*	3.58*	2.20*	2.79*	2.24*	3.06*	2.60	1.90*	3.86*	3.74*	4.41*	4.15	1.34*	12
Nigeria	3.82*	4.61	3.17*	1.74*	2.94*	2.51	2.77*	2.37	2.20	4.32*	3.78*	4.16*	3.62*	1.75	9
Burkina Faso	3.99*	4.44*	4.02*	2.02*	3.71*	1.99*	2.85*	1.91*	1.68*	4.35*	3.55*	4.38*	3.36*	1.36*	14
Mali	4.04*	4.15*	3.55*	1.56*	3.94	2.23*	3.16*	1.94*	1.85*	3.88*	3.51*	4.60	2.61*	2.39	11
Benin	3.41*	4.60	4.15	1.85*	3.27*	1.98*	2.74*	2.07*	1.95*	4.31*	4.11	4.48*	2.81*	1.40*	11
Madagascar	3.96*	3.95*	3.22*	1.16*	4.39	2.31*	2.46*	2.54	1.66*	4.66	3.95	4.44*	3.08*	1.33*	10
Lesotho	3.83*	3.96*	4.02*	2.33*	3.19*	1.62*	2.65*	2.36*	1.70*	4.66	2.85*	4.59	1.90*	1.13*	12
Guinea	3.27*	4.43*	3.74*	1.87*	2.89*	1.87*	2.22*	1.64*	1.63*	4.56	3.82	4.16*	2.92*	1.21*	12
Sierra Leone	3.81*	4.43*	4.29	1.17*	3.45	1.78*	2.68*	1.06*	1.49*	4.79	3.35*	3.96*	2.76*	1.19*	11
Burundi	4.30	4.21*	3.34*	2.58	2.55*	1.78*	2.89*	1.29*	1.37*	4.32*	3.23*	4.09*	2.56*	1.03*	12
Chad	2.98*	4.15*	3.14*	1.12*	3.10*	1.75*	2.61*	1.30*	1.45*	3.44*	3.29*	3.82*	3.16*	1.03*	14
Average score	**4.15**	**4.59**	**4.03**	**2.48**	**3.93**	**2.46**	**3.17**	**2.37**	**2.00**	**4.46**	**3.82**	**4.54**	**3.66**	**1.56**	**-**
Number of SSA countries which record a lower score in relation to the average score of the SSA group	15	15	14	19	15	20	19	19	18	15	17	20	15	18	-

Legend: * Indicates that the value is below the average score of the SSA group of countries.
Source: WEF, The T&T Competitiveness Report 2013

The general view is that the average value of pillars within the TTCI is significantly lower in the relation of the maximum possible score which amounts 7. It brings to conclusion that SSA countries have many possibilities for improvement of their performances that influence on the TTCI competitiveness level on the world rank list.

The total number of deviations below the average value of TTCI shows that Chad and Burkina Faso are the worst positioned countries (for both countries, these countries have lower values of 14 pillars in relation to the average value of the SSA group). After mentioned countries, Cote D'Ivoire, Lesotho, Guinea, and Burundi also stand out by poorer performance compared to the pillar average score of SSA region. All of the aforementioned countries must necessarily make a lot of efforts to make improvements that bring them closer to the average score of the SSA group of countries. Based on the above-stated analysis, we can formulate the list of critical pillars for the SSA group of countries that need priority in development policies and improvements as soon as possible to reach the average value of the group (Table 5).

Table 5: Specification of factors impacting TTCI - the list of pillars which require improvements and priority of T&T development policy in SSA countries (2013)

Country	The critical pillars which show the negative deviations from the average score of the group of SSA countries	Number of critical pillars
Seychelles	P2, P10	2
Mauritius	P2, P13	2
South Africa	P3, P11	2
Cape Verde	P10, P13	2
Namibia	P12, P14	2
Gambia	P8, P13, P14	3
Botswana	P11, P12	2
Kenya	P3, P4, P10	3
Rwanda	P4, P6, P8, P9, P14	5
Senegal	P1, P2, P4, P7, P10	5
Zambia	P4, P5, P6, P8, P9, P10, P11, P12, P14	9
Tanzania	P3, P4, P6, P7, P8, P9, P12	7
Uganda	P3, P4, P5, P6, P7, P8, P9, P14	8
Ghana	P4, P5, P6, P12, P13, P14	6
Zimbabwe	P1, P5, P6, P7, P8, P11, P12	7
Swaziland	P2, P6, P8, P11, P12, P13	6
Ethiopia	P1, P2, P4, P5, P7, P8, P9, P11, P12	9
Cameroon	P1, P2, P5, P6, P7, P8, P9, P10, P12, P14	10
Malawi	P1, P5, P6, P7, P8, P9, P10, P11, P12, P14	10
Mozambique	P3, P4, P6, P7, P8, P9, P10, P11, P12, P14	10
Cote 'Ivoire	P1, P2, P3, P4, P5, P6, P7, P9, P10, P11, P12, P14	12
Nigeria	P1, P3, P4, P5, P7, P10, P11, P12, P13	9
Burkina Faso	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14	14
Mali	P1, P2, P3, P4, P6, P7, P8, P9, P10, P11, P13	11
Benin	P1, P4, P5, P6, P7, P8, P9, P10, P12, P13, P14	11
Madagascar	P1, P2, P3, P4, P6, P7, P9, P12, P13, P14	10
Lesotho	P1, P2, P3, P4, P5, P6, P7, P8, P9, P11, P13, P14	12
Guinea	P1, P2, P3, P4, P5, P6, P7, P8, P9, P12, P13, P14	12
Sierra Leone	P1, P2, P4, P6, P7, P8, P9, P11, P12, P13, P14	11
Burundi	P2, P3, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14	12
Chad	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14	14

Examining the correlation between the GCI and the TTCI and the influence of pillars within the TTCI on the GCI

In order to examine the interdependence between national competitiveness (measured by the GCI) and T&T competitiveness (measured by the TTCI) in SSA countries, the method of correlation analysis is applied. The calculated value of the

correlation coefficient between the GCI and the TTCI is 0.858, and it indicates a strong positive correlation. In this way, it can be concluded that the competitiveness of SSA countries and their T&T competitiveness level is connected. Bearing in mind the above-noted, it can be concluded that the hypothesis H1 is confirmed.

Table 6 shows the correlation between the GCI and pillars within the TTCI.

Table 6: The results of correlation analysis (2013)

Pillar	GCI
TTCI	0.858(**)
P1. Policy rules and regulations	0.705(**)
P2. Environmental sustainability	0.481(**)
P3. Safety and security	0.561(**)
P4. Health and hygiene	0.700(**)
P5. Prioritization of T&T	0.645(**)
P6. Air transport infrastructure	0.706(**)
P7. Ground transport infrastructure	0.753(**)
P8. Tourism infrastructure	0.662(**)
P9. ICT infrastructure	0.694(**)
P10. Price competitiveness in the T&T industry	0.177
P11. Human resources	0.479(**)
P12. Affinity for T&T	0.649(**)
P13. Natural resources	0.270
P14. Cultural resources	0.449(*)

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Prepared by the authors (SPSS Statistics 22)

Analysis of the correlation between the GCI and pillars within the TTCI indicates the existence of a strong positive correlation between the GCI and pillars: Ground transport infrastructure (0.753), Air transport infrastructure (0.706), Policy rules and regulations (0.705), and Health and hygiene (0.700). Moderate positive correlation is found between the GCI and following pillars: ICT infrastructure (0.694), Tourism infrastructure (0.662), Affinity for T&T (0.649), Prioritization of T&T (0.645), Safety and security (0.561), Environmental sustainability (0.481), Human resources (0.479), and Cultural resources (0.449). Weak positive correlation is found between the GCI and pillars Natural resources (0.270) and Price competitiveness in the T&T industry (0.177). Bearing in mind the above-noted and presented in Table 6, it can be concluded that the hypothesis H2 is confirmed.

Results of regression analysis presented in Table 7 indicates that the influence of the TTCI on the GCI is 0.801 in SSA countries. It can be concluded that the hypothesis H3 is confirmed.

Table 7: The results of regression analysis (2013)

Pillar	Regression coefficient				
	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
TTCI	0.801	0.089	0.858	8.982	0.000
P1. Policy rules and regulations	0.173	0.117	0.256	0.256	0.157
P2. Environmental sustainability	0.018	0.198	0.017	0.017	0.927
P3. Safety and security	0.161	0.120	0.215	0.215	0.196
P4. Health and hygiene	*-0.056*	0.117	-0.141	-0.141	0.641
P5. Prioritization of T&T	*-0.036*	0.098	-0.081	-0.081	0.719
P6. Air transport infrastructure	*-0.290*	0.233	-0.487	-0.487	0.232
P7. Ground transport infrastructure	0.295	0.187	0.457	0.457	0.134
P8. Tourism infrastructure	0.332	0.168	0.888	0.888	0.065
P9. ICT infrastructure	*-0.153*	0.291	-0.194	-0.194	0.607
P10. Price competitiveness in the T&T industry	0.158	0.116	0.180	0.180	0.192
P11. Human resources	0.127	0.155	0.169	0.169	0.425
P12. Affinity for T&T	*-0.076*	0.243	-0.091	-0.091	0.758
P13. Natural resources	0.137	0.052	0.351	0.351	0.018
P14. Cultural resources	0.189	0.186	0.195	0.195	0.157

Note: Dependant variable GCI

Source: Prepared by the authors (SPSS Statistics 22)

The regression analysis is also used in order to examine the influence of the pillars within the TTCI on the GCI. The results of the analysis show how T&T competitiveness factors (pillars) impact on the level of national competitiveness (measured by GCI). Tourism infrastructure (0.332) and Ground transport infrastructure (0.295) pillar have the highest influence on the GCI among analysed pillars in SSA countries. Cultural resources (0.189), Policy rules and regulations (0.173), Safety and security (0.161), Price competitiveness in the T&T industry (0.158), Natural resources (0.137), and Human resources (0.127) have a modest influence on GCI.

The impact of pillars within TTCI on GCI according to clusters

In order to analyse homogeneity of SSA countries according to impact of pillars within the TTCI on GCI, SSA countries are grouped into three clusters by using cluster analysis. Cluster analysis is the method of multivariate analysis and serves for the classification of countries according to their characteristics. The cluster analysis of the SSA countries according to the pillars within the TTCI determined the following structure of clusters:

Cluster 1: *Seychelles, Mauritius, South Africa, and Cape Verde*;

Cluster 2: *Namibia, Gambia, Botswana, Kenya, Rwanda, Senegal, Zambia, Tanzania, Uganda, Ghana, Zimbabwe, Ethiopia, Cameroon, and Malawi*.

Cluster 3: *Swaziland, Mozambique, Cote D'Ivoire, Nigeria, Burkina Faso, Mali, Benin, Madagascar, Lesotho, Guinea, Sierra Leone, Burundi, and Chad*.

Cluster 1 have the best values of the pillars within TTCI. Cluster 2 includes countries with lower values of the pillars scores within TTCI compared to cluster 1. Finally, cluster 3 consists of the countries with the lowest values of the pillars scores within TTCI.

By applying the method of least squares in the linear regression model, it is estimated the value of the parameters of the regression model, ie. regression coefficients. The values of these coefficients by clusters are shown in Table 8.

Table 8: The value of regression coefficients – influence TTCI on GCI (2013)

Cluster	Regression coefficient				
	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
Cluster 1	0.912	0.886	0.589	1.030	0.411
Cluster 2	1.073	0.263	0.776	4.085	.002
Cluster 3	1.010	0.302	0.694	3.343	.006

Source: Prepared by the authors (SPSS Statistics 22)

According to the values presented in Table 8, in countries grouped in cluster 1 there are weakest impact of TTCI on GCI. Competitiveness in the tourism industry has the strongest impact on national competitiveness in the second cluster, and a slightly weaker effect in the third cluster.

Table 9 displays the values of regression coefficients that show the impact of changes in factors of competitiveness in the tourism industry on the global competitiveness of countries in SSA group, which is differentiated into three clusters.

Table 9: The values of regression coefficients (pillars) by clusters

Pillar	Cluster 1	Cluster 2	Cluster 3
P1. Policy rules and regulations	1.113	0.221	0.303
P2. Environmental sustainability	-1.554	0.099	0.384
P3. Safety and security	0.151	0.102	0.251
P4. Health and hygiene	0.443	0.128	0.123
P5. Prioritization of T&T	0.160	0.144	0.137
P6. Air transport infrastructure	-0.238	0.579	0.424
P7. Ground transport infrastructure	0.359	0.286	0.339
P8.Tourism infrastructure	0.360	0.456	0.152
P9. ICT infrastructure	0.556	0.905	0.138
P10. Price competitiveness in the T&T industry	0.265	0.140	0.010
P11. Human resources	0.166	0.061	0.106
P12. Affinity for T&T	-0.076	-0.811	0.208
P13. Natural resources	0.141	0.057	-0.097
P14. Cultural resources	0.222	0.344	-0.277

Source: Prepared by the authors (SPSS Statistics 22)

Countries from the first cluster will largely contribute to increasing national competitiveness if they focus on strategies and programs to improve P4, P7, P8, and P9 pillar in T&T development policies (Table 9). Countries from the second cluster will achieved this effect if they improve P6, P8, P9, and P14 pillar. At least, countries from the third cluster will achieved this effect if they improve P1, P2, P6, and P7 pillar.

Conclusion

The research covers 31 countries of the SSA region. Most countries are still largely in the early stages of development and strongly connected with more general and longstanding development challenges. Despite the fact that all countries in the region are aware of the potential role of tourism as an economic opportunity and development initiator, most of them do not have the economic potential to improve competitiveness of T&T sector.

The analysis of the T&T competitiveness of the SSA countries in the paper is based on the data about rank and score of the TTCI. According to WEF report, the global rank of the T&T sector in SSA countries is very low. The best-placed SSA country in the world rankings, Seychelles, is located at 38th position out of 140 analysed countries, while the weakest positioned Chad lags behind Seychelles by 101 positions, situated in 139st place on the world list. It is particularly indicative that, except of Seychelles, Mauritius, and South Africa, all the other SSA countries are located in the second half of the world list according to the TTCI score. Such low competitiveness of the T&T sector in SSA countries provides an opportunity for its significant improvement in the coming period. The ambition of this paper is to contribute to the improvement of the T&T sector in SSA countries through the analysing achieved level of the T&T competitiveness in SSA countries and emphasizing the relevance of a T&T competitiveness improvement onto national competitiveness.

The results of empirical research propose verification of all hypotheses. The correlation analysis finds a strong positive correlation between the GCI and the TTCI (correlation coefficient is 0.858), which imply interdependence between national competitiveness of SSA countries and their T&T competitiveness (confirmed H1). Similar as that, the analysis of the correlation between the GCI and pillars within the TTCI substantiates the existence of a strong positive correlation between these categories (confirmed H2). The value of the regression coefficient of 0.801 confirms the significant influence of the achieved level of T&T competitiveness in SSA countries on the level of its global competitiveness (confirmed H3). Finally, there is no homogeneity of SSA countries according to impact of pillars within TTCI on GCI (confirmed H4). Countries from the first determined cluster largely contribute to increasing national competitiveness. All these results suggest that the development of tourism competitiveness in the future could significantly contribute to the improvement of the national competitiveness of SSA countries.

Beside the above-mentioned results, the study identifies a lot of critical factors, i.e. pillars, which limits the level of competitive position of SSA countries. These factors (pillars) should be in the focus of future T&T development policies of SSA countries.

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