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ANALYSIS OF STATE INTERNATIONAL TOURISM POLICY

Abstract

The patterns of tourists inflow response to the aggregate rate, quantity of sightseeing places of world cultural heritage, efficiency of marketing and advertising, governmental spending from a budget on tourism, transparency of governmental policy and other factors were developed and the range of econometric models were built. Countries subdivision according to tourism development was justified.

Key words:

Tourism, tourist industry, state international tourist policy, cross-correlation regressive analysis, and international tourist activity regulation.

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Hasty growth of tourist stream in the last few years, its complex character and its great influence on the different sides of modern society life predetermine the necessity of study and generalization of complicated and various tourism processes for foreign countries. Tourist industry in different countries is developed on different level and, obviously it has more or less influence on a national income [1, p. 18]. A task of state policy in the tourism sphere is to provide a complex and balanced development of tourism and to take into account it's specific and features of concrete region. For this purpose the state can use the range of levers of direct and indirect influence [3, 4]. Authoritative forum in Davos was interested by tourism influence on business activity and state of tourist industry and starting from 2007 year has been publishing annually the analytical Travel & Tourism Competitiveness Report [8]. The experts of Davos forum have estimated 14 basic parameters of countries, among them are: a state policy in tourism industry; governments' ability to provide safety; sanitary terms; cost of rest; development of a transport infrastructure; ethnic flavour; presence of comfortable hotels; environmental conditions; skilled human resources etc. At the calculation of tourist attractiveness index experts have examined a situation in 134 countries.

The purpose of this paper is to determine the degree of influence of the stated factors on development of tourist industry in separate countries and to develop econometric models by using correlation – regressive analysis [7] and data of the World Economic Forum (table 1). In this research paper we have analyzed 41 countries with various development levels.

We have investigated how the various aspects (X) influence on the tourists inflow Y. Among them are: aggregate rate (X_1 is a position in the complex rate); quantity of sightseeing places of world cultural heritage (X_2 is a position); tourists inflow response to ads and marketing efficiency in tourism industry (X_3 is a position); budget expences of government on tourism in per cent (X_4 is a position); government priorities in tourism sphere (X_5 is a position); transparency of governmental policy (X_6 is a position); sustainability of tourism industry development (X_7 is a position); quality of roads (X_8 is a position); visas formalities (X_9 is a position).

1) While building on a plane the cloud of points (*Yi, Xi)* it is possible to see that between those two variables cross-correlation regressive response exists: with diminishing of rating of X_1 (x_1 grows), the amount of tourists of Y falls, vice versa (table 1).

Table 1

Countries rate according to «Travel & Tourism Competitiveness Report» [8]

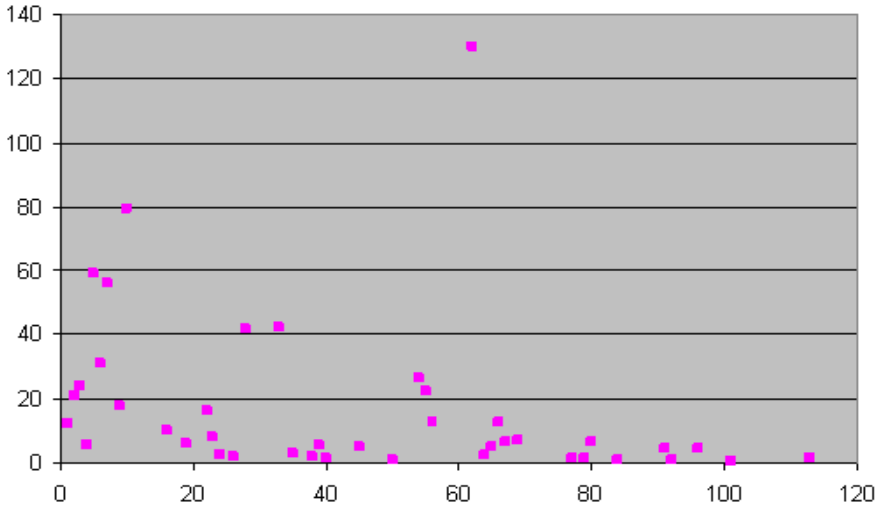
Country	Tourist inflow, mill.	Aggre-gate rate	Quantity of sight-seeing places of world cultural heritage	Ads and marketing efficiency in tourism in-dustry to tourists in-flow, position	Budget ex-pences of government on tourism in per cent, position	Govern-ment pri-orities in tourism sphere, position
	Y	X1	X2	X3	X4	X5
Switzerland	12	1	38	22	18	42
Austria	21	2	19	4	36	18
Germany	24	3	3	60	97	104
Australia	5,65	4	30	17	59	26
Spain	59,2	5	2	20	21	25
UK	31	6	7	27	75	67
USA	56	7	19	34	31	84
Canada	17,9	9	30	38	45	56
France	79,3	10	4	26	71	43
Singapore	10	16	108	3	8	5
Czech Republic	6	19	12	83	54	92
Greece	16,04	22	9	35	13	19
Japan	8,35	23	15	86	44	87
Cyprus	2,5	24	54	29	11	11
Estonia	1,97	26	69	44	14	68
Italy	42	28	1	103	57	97
Hungary	42,5	33	23	90	30	57
Israel	3	35	38	49	96	64
Slovenia	1,9	38	46	121	92	115
Tunisia	5,6	39	23	11	17	7
UAE	1,5	40	108	1	99	4
Latvia	5,2	45	69	88	69	107
Panama	1,22	50	69	39	35	55
Turkey	26,3	54	17	63	118	58
Mexico	22,6	55	6	30	37	38
Poland	12,9	56	12	109	78	122
China	130	62	5	69	48	66
Russia	2,5	64	10	120	80	125
India	5	65	8	51	115	51
Egypt	12,8	66	30 30	42 42	20 20	31 31
Morocco	6,72	67	19	18	55	67
Rumania	7	69	30	118	40	123
Ukraine	1,7	77	54	112	34	116
Azerbaijan	1,4	79	69	104	67	66
Indonesia	6,43	80	54	13	12	113
Gambia	1,1	84	69	14	9	63
Albania	0,984	92	69	124	50	114
Vietnam	4,35	91	54	66	107	97
Kenya	0,729	101	83	16	19	100
Kazakhstan	4,71	91	69	98	-	109

Continuation of Table 1

Country	Transparency of governmental policy, position	Sustainability of tourism industry development, position	Quality of roads, position	Visas formalitie, position	Quality of natural environment, position
	X6	X7	X8	X9	X10
Switzerland	4	16	3	85	10
Austria	15	3	7	30	4
Germany	9	29	4	28	16
Australia	12	12	25	120	13
Spain	67	55	24	30	72
UK	24	49	21	6	48
USA	31	39	8	88	70
Canada	23	25	11	66	15
France	26	20	1	30	37
Singapore	1	1	2	1	12
Czech republic	95	81	68	46	88
Greece	74	35	46	30	55
Japan	14	79	13	55	42
Cyprus	44	47	23	46	41
Estonia	28	52	55	46	18
Italy	108	113	51	30	76
Hungary	94	84	64	46	107
Israel	22	46	30	21	60
Slovakia	41	105	65	46	75
Tunisia	13	4	34	12	30
UAE	20	2	9	83	29
Latvia	78	92	79	46	24
Panama	60	59	52	68	47
Turkey	59	56	50	73	106
Mexico	76	48	59	76	122
Poland	113	114	98	46	94
China	25	80	53	87	126
Russia	118	125	106	107	104
India	45	63	82	124	115 128
Egypt	92	38	71	101	128
Morocco	49	10	67	27	96
Romania	126	122	123	7	91
Ukraine	119	120	116	81	121
Azerbaijan	97	94	66	106	109
Indonesia	130	32	113	104	130
Gambia	38	11	63	74	45
Albania	122	123	114	76	129
Vietnam	87	44	97	103	117
Kenya	77	19	100	80	92
Kazakhstan	122	96	109	109	118
Kyrgyz Republic	125	106	104	104	11

Figure 1a.

Tourist inflow response to aggregate rate X_1



Thus we can see that rapid growth of tourists amount (inflow) *Y* with upward shifting in rate (occurs approximately with tenth position and that is true for the top-ten countries). After an approximately 10–12th position a moderate slump of amount of tourists with rating occurs. China is absolutely separated as the phenomenon (62 th position in list). China is an average country in the list, but the country is visited in 1,6 times more than France (130 million in comparison with 79,3 million). After China Italy passes ahead due to amount of tourists visited Italy (42 millions). Italy is a number one country in the world due to amount of sightseeing places of world cultural heritage. After Italy goes Mexico (VI position), and also Hungary and Turkey. Poland and Egypt are also separated as they pass ahead the position in the rate. That's why we have developed two econometric models:

a) from the list of 41 countries excluded China, Italy, Mexico, Turkey and Hungary.

b) to the excluded countries (model 1a) we have added Poland and Egypt.

We have used STADIA program for models calculation [2]. Those econometric models are non linear regressions:

I range:

a) Model is power regression perpeciєю $Y = a^* x_1^b = 51{,}148\ x_1^{-0{,}6608}$; $R^2 = 0{,}492$; $r = 0{,}701$. Standard error of measurement *a* and *b* equals

$\sigma(a) = 0{,}44122$; $\sigma(b) = 0{,}12499$ and are on the level of credibility $\alpha \approx 0$. Model verification according to Fishers' criteria proves its adequacy.

b) Exponent regression $Y = a^* e^{bx}$ = 16,793 $e^{-0{,}0254x}$; R^2 = 0,492; r = 0,66842. Standard error of measurement a and b equals $\sigma(\grave{a}) = 0{,}260$; $\sigma(b) = 0{,}0046379$ and are on the level of credibility $\alpha \approx 0$. Model verification according to Fishers' criteria proves its adequacy.

c) Optimum regression $Y = x / a + b_1 x_1 + c_2 x_1^2 = x_1$ / 0,015466 – 0, 10459 x_1 + 0,0079617 x_1^2; R^2 = 0, 59756; r = 0,77302. Argument c is on the level of credibility, arguments a and b are insufficient. That's why the correspondent model is adequate.

II range shows a better response with the above models (greater R^2).

a) Y = 54,34 $x_1^{-0{,}7034}$; R^2 = 0,51174; r = 0,71536 (graph. 1b). Standard error of measurement a and b $\sigma(\grave{a}) = 0{,}42426$; $\sigma(b) = 0{,}12145$ are on the confidence level $\alpha \approx 0$.

b) Y = 16,791$e^{-0{,}0254x}$; R^2 = 0,4919; r = 0,70136.

Standard error of measurement a and b $\sigma(\grave{a}) = 0{,}25390$; $\sigma(b) = 0{,}0045549$ are on the confidence level $\alpha \approx 0$.

c) $Y = x_1 /$ 0,010024 – 0, 013177 x_1 + 0,0071113 x_1^2; R^2 = 0,60949.

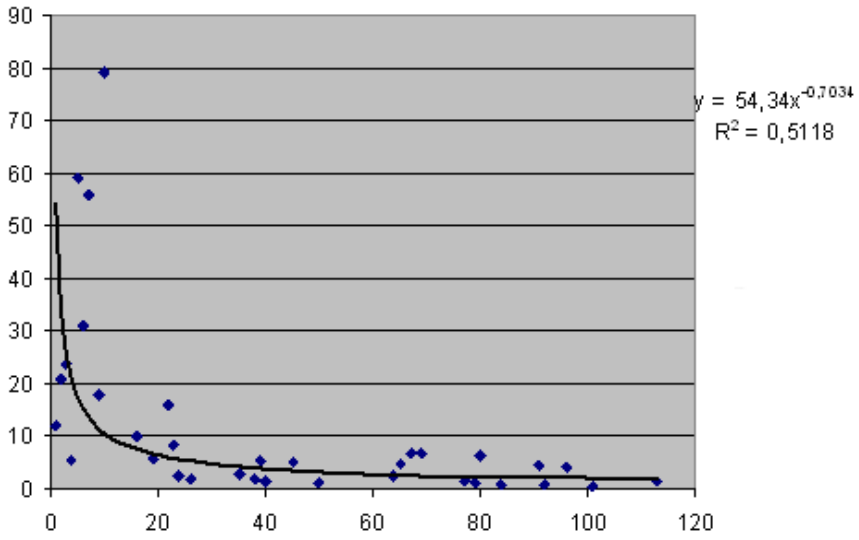
Argument c is significant with the high level of credibility, whereas arguments a and b are insufficient. The observed data are mostly satisfied by the power regression model.

As $|r| > 0{,}7$ then it is possible to consider that between the tourists inflow and countries' aggregate rate there is close cross-correlation response.

2) With the upward shifting in countries' rate due to quantity of sightseeing places of world cultural heritage (X_2), the amount of tourists (inflow) that are visiting them Y also increases (table 1). China, USA, Hungary and Singapore have a greater amount of tourists (tourists inflow), than it was expected due to its positions in rate. Therefore for the econometric model development which would consider inflow of tourists into countries response to the position in rate we would omit from consideration selected countries.

Figure 1b.

Tourist inflow response to aggregate rate X_1



Those econometric models are non linear power regressions:

a) Model is power regression $Y = 92{,}558\, x_2^{-0{,}8606}\ x_2$; $R^2 = 0{,}6587$; $r = 0{,}812$ Standard error of measurement a and b $\sigma(\grave{a}) = 0{,}3444$; $\sigma(b) = 0{,}10286$ are on the confidence level $\alpha \approx 0$. Model verification according to Fishers' criteria proves its adequacy.

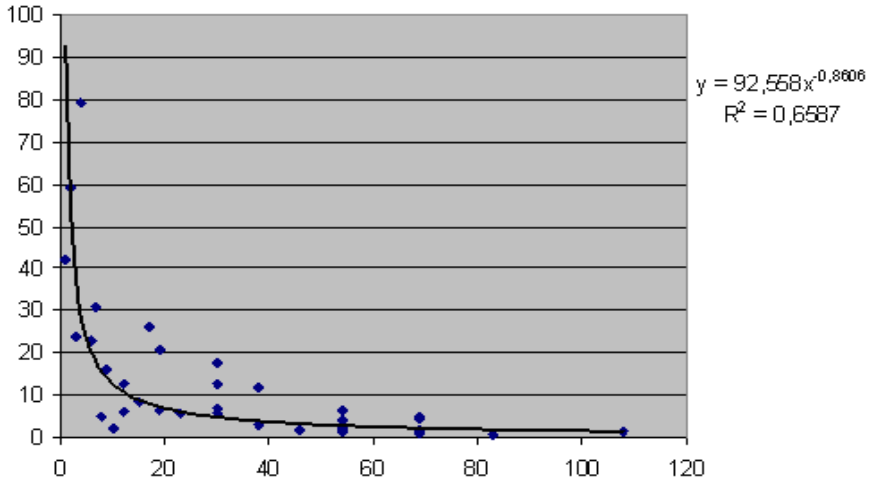
b) Exponent regression model $Y = 20{,}8885e^{-0{,}03255754x}$; $R^2 = 0$, 63397; $r = 0{,}79622$. Standard error of measurement a and b $\sigma(\grave{a}) = 0{,}19657$; $\sigma(b) = 0{,}0041231$ are on the confidence level $\alpha \approx 0$. Model verification according to Fishers' criteria proves its adequacy.

c) Optimum regression model $Y = x_2 / -0{,}022273 + 0{,}12795x_2 + 0{,}0064676\, x_2^2$; $R^2 = 0{,}69811$; $r = 0{,}83553$. Argument c is on the level of credibility, arguments a and b are insufficient. That's why the correspondent model is adequate. The observed data are mostly satisfied by the power regression model.

As $|r| > 0{,}7$ then it is possible to consider that between the tourists inflow and countries rate according to sightseeing places of world cultural heritage there is close cross-correlation response.

Figure 2.

Tourist inflow response to quantity of sightseeing places of world cultural heritage X_2



3) The inflow of tourists *Y* (table 1) responses to the efficiency of marketing and advertising X_3. It is traced in two branches of cross-correlation regressive response which include three states types according to the models of government control in tourist industry [5, p. 110; 6, p. 180].

First branch shows the first type of the states (Germany, Czech Republic, USA, Turkey etc.) that spend a lot of monetary funds on marketing strategy and advertising of national tourist product.

Second branch characterizes countries, which have recently appeared on the tourist market, or have already showed oneself as permanent participants countries of tourist market (Austria, Switzerland, Cyprus, Vietnam, Egypt, Greece, Mexico, India, etc.) and that is why funds spent on advertising and marketing were considerably lower, than at the countries of the first type.

Third branch depicts the transitionary countries (Singapore, Panama, Estonia, Indonesia, Malaysia, Kenya, etc.). Despite the lower amount of spent funds, every year these countries are visited by constantly increasing amount of tourists. It can be explained by tourist exotic product supply (Tunisia, Arabic Emirates, Barbados) or by luxurious tourist service (by traditional character). China, USA, Hungary, Italy could serve as exceptions from this model. As it is known, there is no central tourist administration in the USA and all advertising and marketing functions are performed by tourist market participants, which in turn increase or diminish capital inflows in the product promotion.

Figure 3a.

Tourist inflow response to efficiency of marketing and advertising X_3

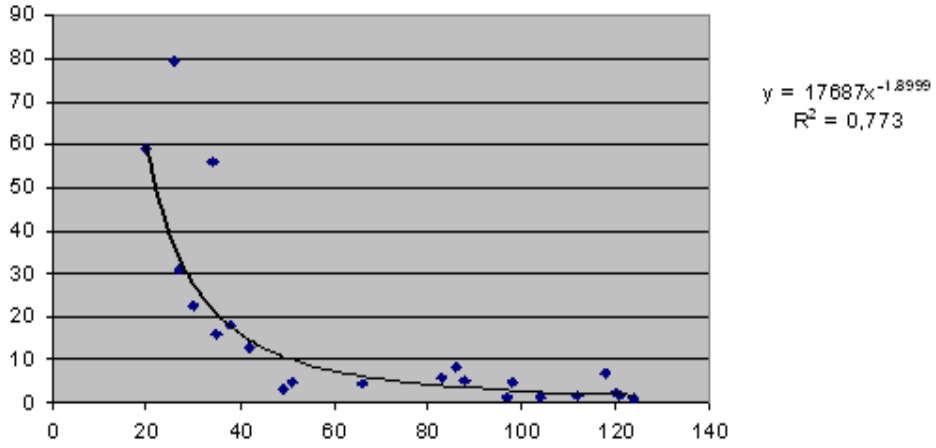
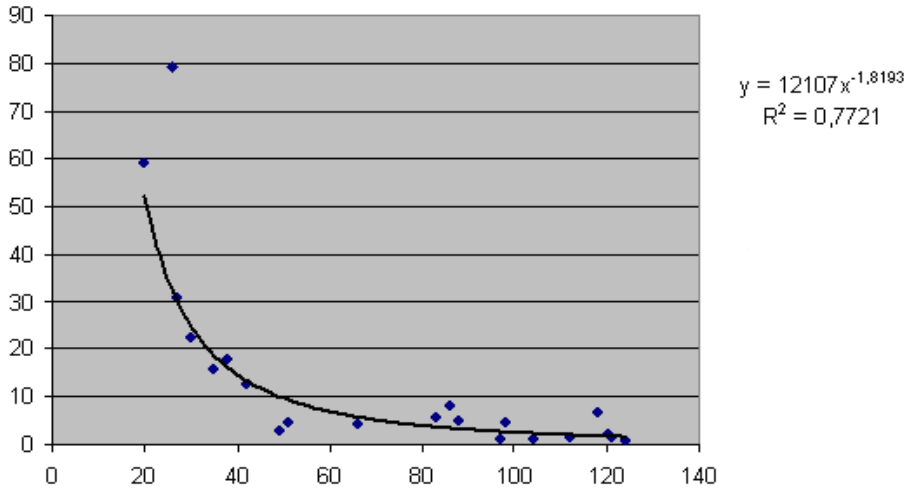


Figure 3b.

Tourist inflow response to efficiency of marketing and advertising X_3



China belongs to the countries with the controlled administration of tourist market and centralization of all investments in advertising [11]. Hungary and Italy have succeeded in tourism product promotion due to cultural and natural heritage, historic character of tourist process. Such profitable image management diminishes requirements in increasing of tourist product advertising, because of tourists' desire and demand to visit those countries in spite of everything [9]. However, it is no need to eliminate role of marketing and advertising in tourist product promotion. Such countries, as Gambia, Kenya, Indonesia, Singapore, as it is depicted in the model, have conquered the tourist niche due to effective tourism product promotion and effective advertising.

I branch:

$Y = 17687\ x_3^{-1,8999}$; $R^2 = 0,773$ (USA included)

Or $Y = 12107\ x_3^{-1,8193}$; $R^2 = 0,7721$ (USA excluded)

II branch:

$Y = 32,037\ x_3^{-0,7688}$; $R^2 = 0,3466$

4) The model has grounded that the amount of tourists Y responsed to the government spending from a budget on tourism in per cent (X_4 – position) and according to the model it was reasonable to distinguish 3–4 countries' types.

First branch characterizes the first type of countries which are stable tourist countries with the permanent increase of tourists stream. Those leading countries, as Spain, Italy, Great Britain, Germany, entered a market in XIX–XX century. These countries are characterized by permanent high spending rate on tourist industry. Those countries are economically developed with predominance of tourism import supply.

So-called stable-state countries of the tourist import and export product direction belong to the second countries' type. Those countries are characterized by the developed tourist infrastructure and constant increase in tourist inflow(Austria, Hungary, Canada, Mexico, Poland).

The third type does not substantially differs from the second type of countries. Those countries are so-called transitionary. Import of the international tourism product prevails. Ukraine, Russia, Kyrgyzstan, Kazakhstan belong to that newly reformed type. The second and the third country types are characterized by the crisis stagnant phenomenon and inconstant government subsidizing of the national tourist projects.

Recently scientists began to distinguish the IV th type of countries, the so-called accumulating, developing countries [12]. Those countries are oriented to participate in the international tourism market with the export of the tourism product. Such new industrial countries spend considerable sum of money from a budget on tourism development (Singapore, Malaysia, Indonesia).

Figure 4.

Tourist inflow response to the government spending from a budget on tourism in per cent X_4

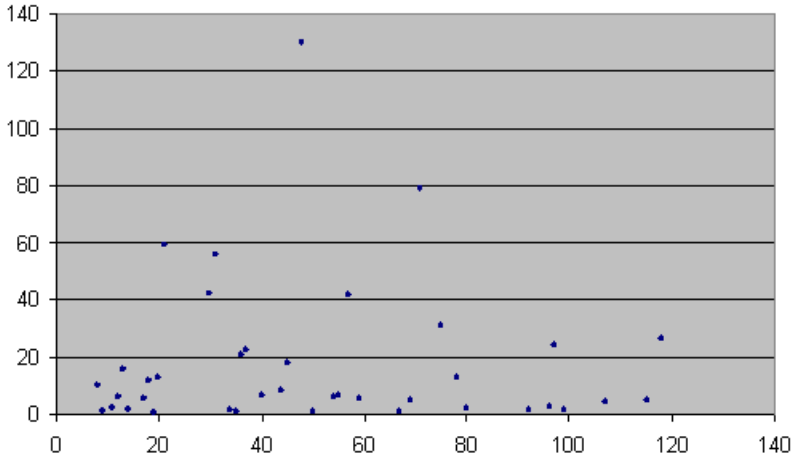


Table 2

Incomings and outgoings in tourism industry [8]

Country	Tourism development out-goings, % from state budget	Tourism incomings, % from GDP
Dominican Republic	21,1	14,4
Jamaica	16,8	23,0
Barbados	15,8	32,1
Singapore	10,2	14,9
Greece	8,1	6,1
Egypt	6,6	10,4
Spain	6.5	6,0
Switzerland	6,0	5,9
USA	5,5	1,3
Hungary	5,1	6,5
Ukraine	5,0	7,3
Austria	4,7	8,5
Italy	3,5	3,5
France	3,0	3,5
UK	2,7	4,3
Malaysia	1,7	10,2

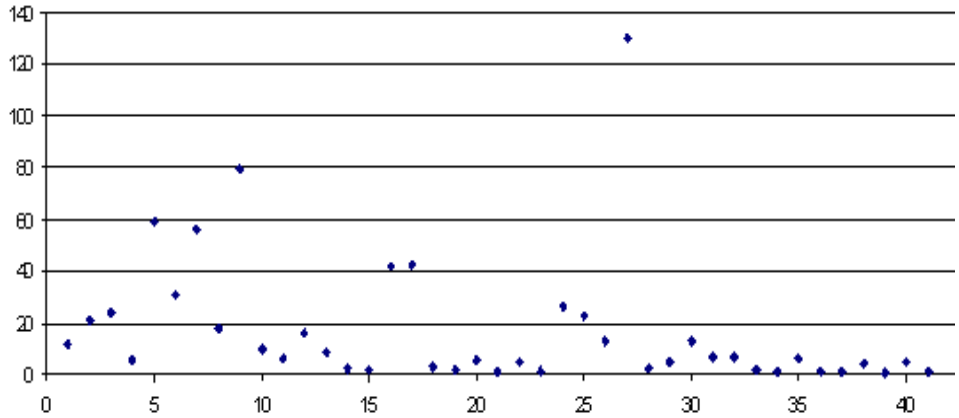
In table 2 data of countries' government spending on tourism development in per cent from state budget and tourism incomings in per cent from GDP are represented.

From the table 2 it is possible to find a tendency which shows that tourism incomings' increment (per cent from GDP) response to tourism development outgoings (per cent from state budget). Such analysis justifies the necessity of tourism investments because of high multiple effect of the industry. Especially it's typical to Malaysia and Barbados. As it is shown in the table 2, Ukraine gains a lot from tourism industry, as the incomes exceed spending. Such result proves the necessity of investment flow redirection into development and promotion of national tourism product.

5) Similarly to paragraph 4, the tourists inflow *Y* responses to the government priorities (support in tourism) X_5 and also divides the countries into four branches (Table 1).

Figure 5.

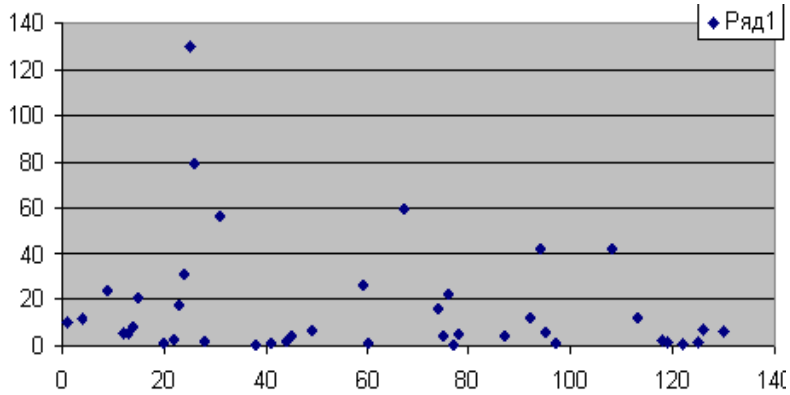
Tourist inflow response to the the government priorities (support in tourism) X_5



6) By that model the tourists inflow *Y* responses to the transparency of public governmental policy X_6. We have sustained a considered theory of government regulation of tourist activity and grounded the countries' divisions into four types (graph 6).

Figure 6.

Tourist inflow response to the transparency of public governmental policy X_6



The first type of countries is characterized by transparency of governmental policy in tourism industry. A vivid example is a group of European countries, as France, Spain, Hungary and Italy, which pursue a predictable, transparent policy, develop the programs of tourism product creation for decades forward. As an extraordinary example could serve China that worked out the tourism development program up to 2050 year.

The second type of countries (USA, Mexico, Greece, Turkey) is known for the tourists loyalty policy and persistent reduction of barriers (visa formalities) to the third countries.

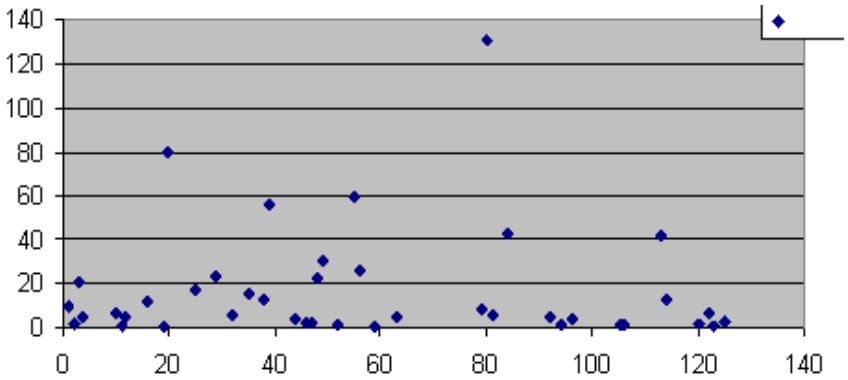
The third countries' type (Germany, Slovenia, Cyprus) has worked out governmental policy and certain social programs, however, sometimes they haven't been executed (India, Panama, Kenya) [10].

The fourth countries' type is the so-called aggressive in the tourism industry. Those countries are characterized by a prompt entrance to the market, by transparency of governmental policy, overstating of tourist indexes, rapid growth of infrastructure and constantly correcting plans of tourism industry development (United Arab Emirates, Singapore, Barbados, Dominican Republic, Estonia, Gambia).

7) Tourist inflow *Y* responses to the sustainability (consistency) of tourism industry development X_7. According to the model the countries are divided into four types (see graph 7).

Figure 7.

Tourist inflow response to the sustainability (consistency) of tourism industry development X_7



The first type's countries are the permanent participants of tourist business market (Spain, Hungary, France, Italy, USA) and were also included in the list of the most visited countries in the world. A percentage of tourist inflow increase is insignificant but permanent and predicted.

The second and the third types differ insignificantly from each other. They are characterized by the government attempts to support tourist flow increase. Among this group Greece, Israel, Panama and Cyprus should be separately distinguished as they experience insignificant oscillation of tourist stream and in some scientists' opinion they experience recessionary tendencies. From year to year those countries' statistical bureaus declare about an implacable and insignificant slump at the rate of 0,8 % annually.

To the forth type the so-called newly industrializing countries that have suddenly appeared at the tourist market and annually increase the tourism product export at the rate of 1,5–2,0 % belong to.

In this model exceptions are traced (China, Mexico, Switzerland, Austria, Indonesia, Kazakhstan, Kyrgyzstan). This intermediate countries' group due to an authentic image conquered its customer. As we have already investigated, among this group it is possible to distinguish additional group, the sub-group (Austria, Switzerland, Mexico) of developed in tourism industry countries with insignificant, but stable growth of tourist industry. Due to its uniqueness Kazakhstan and Kyrgyzstan annually has continuous stable growth of tourism product. Mainly tourists arrive in those countries from highly developed countries in search of exoticism.

Ukraine occupies a 77th position in the aggregate rate and does not use to the full extent the sights of world cultural heritage (54 position). In spite of the considerable government spendings from a budget on tourism (34 places), a government does not support the tourism industry as a priority one (116 position). That's why Ukraine occupies the last places in the world (116 position) by the quality of roads and air infrastructures, it shorts of hotel rooms on 100 persons (104 position). In Ukraine it doesn't pay enough attention to quality of natural environment (121 position). Closed nature of governmental policy, the unforeseen activity of profile committees (a 119 position by the transparency of governmental policy) along with the above-mentioned factors makes uneffective marketing and advertising in response to the tourists inflow (112 position) and negatively influences on sustainability of tourist industry development.

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