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Editorials: The papers in MIAU Nr.249 (2019.V) are products of a new education frame "QuILT" (https://miau.my-x.hu/mediawiki/index.php/QuILT).

The goals of QuILT are supporting/conducting Students on the way of KNUTH, who said (1992): Knowledge is, what can be transformed into source code, each other human activity is a kind of artistic performance. It also means we need to leave the world of the magic of words step by step. A solid evidence that we all are capable of going this way is: creating publications behind which the human expertise and the robotized knowledge (like online engines: <a href="https://miau.my-x.hu/myx-free/coco/index.html">https://miau.my-x.hu/myx-free/coco/index.html</a> --- offering context free = quasi General-Problem-Solving force fields) can be integrated in case of a rational and relevant decision making scenario. The cyborg effects make possible to face the classic naïve and/or intuitive approaches and parallel the optimized approximations. This way can be realized without deep competences about mathematics, Excel (spreadsheets), statistics, etc. The new (inter/trans/multi-disciplinary) way just expects from us to be able and willing to co-operate with the best moments of the history – it means, with the already prepared robotized elements in order to build something creative one!

# What is the best country based on the distribution of inbound trips by regions?

Aftab Usama, Arham Abdul, KJU - 2019 - Budapest

#### Introduction

Decision makers could be interested to have an answer for the question: What is the most proportional country concerning the distribution of inbounds trips by regions in Hungary year by year. The appropriate data can be identified based on online searching (Google: tourism statistics Hungary site:ksh.hu): <a href="https://www.ksh.hu/docs/eng/xstadat/xstadat\_annual/i ogt007.html">https://www.ksh.hu/docs/eng/xstadat/xstadat\_annual/i ogt007.html</a>

The paper will present 4 approaches (3 of them are naïve statistical approaches and the 4th is a specific "joke" being able to test applicants of online analytical robots like <a href="https://miau.my-x.hu/myx-free/coco/index.html">https://miau.my-x.hu/myx-free/coco/index.html</a>):

The paper shows two separate years (at first 2018 – Figure Nr1 and then 2017 – Figure Nr5).

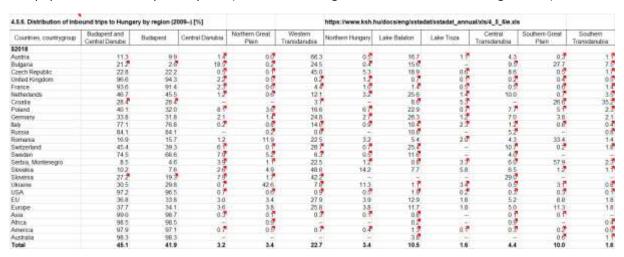


Figure Nr1: Raw data for 2018 (source: KSH)



Figure Nr2: Ranking values for 2018 incl. results from the similarity-based optimzing process (MY-X FREE COCO Y0) and a naïve additive approach

#### **INTERPRETATIONS**

HERE WE USE ROBOT SYSTEM WHICH TELLS US NOT ABOUT THE BEST COUNTRY BUT TELL ABOUT OUR FIGURES THAT THEY ARE ALRIGHT OR NOT IN OTHER WORDS IT TELLS US ABOUT THE ACCURACY OF THE FIGURES WHICH WE GET AND THE CONCLUSION IS THAT OUR FIGURES ARE ALRIGHT. THE QUESTION HERE IS NOT THAT WHICH COUNTRIES ARE GOOD FOR THE PROPORTIONAL TOURISM IN HUNGARY BUT ABOUTH THE ACCURACY OF FIGURES AND DATA OF THE HUNGARIAN CENTRAL STSTISTICAL OFFICE. THE URL WE USED FOR ROBOT SYSTEM IS FOLLOWING:

#### https://miau.my-x.hu/myx-free/coco/beker y0.php

THE STATISTICAL OFFICE DELIVERS FOR EACH COUNTRY THE DISTRIBITION VALUES, WHERE THE SUM OF THE DISTRIBUTION VALUES SHOULD ALWAYS BE 100%. IF IT IS SO (OR THE SUM IS NOT 100% BUT THE SAME VALUE FOR EACH COUNTRY) THEN THE ANTI-DISCRIMINATIVE ROBOT EVALUATOR WILL DERIVE THE SAME EVALUATION VALUE FOR EACH COUNTRY.

THE MODEL CONCEPTION IS THEREFORE CAPABLE OF TESTING THE USERS OF THE ONLINE ANTI-DISCRIMINATIVE ENGINE (COCO YO) AND THE SOFISTICATED USERS SHOULD BE ABLE TO IDENTIFY, THAT THE STRONG PATTERN IN THE INPUT SIDE CAN NOT ALLOW TO FOLLOW THE REAL ANALYTICAL GOALS.

IF THE USERS OF THE ANTI-DISCRIMINATIVE TECHNIQUES DO NOT DERIVE THE SUSPICISION BASED ON ONE SINGLE YEAR, THEN IT IS TO EXPECT, TO HAVE THE SUSPICION AFTER THEY SEE TWO DIFFERENT YEARS WITH THE SAME ANTI-DISCRIMINATIVE RESULTS.

#### ATTENTION!!!!

THE FOLLOWING TABLES CONSISTS COLOURS SO THE **GREEN** COLOUR REPRESENTS THE BEST COUNTRY AND THE **YELLOW** COLOR REPRESENTS THE CONCERNED "BEST" COUNTRY BASED ON THE NAÏVE APPROACH USING THE MINIMIZED STANDARD DEVIATION FOR RANKING (FIGURE 2):

	В.	C.	U	E	-	9.	n n	1	- 3	70		W
\$2018	Budapest and Central Danube	Budapest	Central Danubia	Northern Great Plain	Western Transdan ubia	Northern Hungary	Lake Balaton	Lake Tisza	Central Transdan ubia	Southern Great Plain	Southern Transdan ubia	STD
Austria	11,3053	9,89975	1,40555	0,02833	66,2635	0.54787	16.69	1,05116	4,27582	0,278	1,13811	19,3903
Bulgaria	21,1729	2,64098	18,532	0,16305	24,4908	0,37251	15,5911	0	9,51424	27,743	7,45186	10,3713
Czech Republic	22,756	22.2321	0.52389	0.082	44,9585	5,29649	18,9419	0.61383	8,61237	0.52176	1,68756	14,3168
United Kingdom	96,577	94,3421	2,23489	0,51116	0,18454	1,17746	0,67099	0,05843	0,18555	0,44728	0,53309	38,3535
France	93,6493	91,3587	2,29059	0,56524	4,41553	1,00435	1,36267	0,47689	0,52339	0,61784	1,42312	36,871
Netherlands	46,6863	45,5126	1,17367	0,62653	12,0862	3.22435	25,5632	1,36302	10,0272	0,71556	3,50406	17,6615
Croatia	28,3758	28,3758	0	0	3,6583	0	8,63843	5,34371	0	26,6227	35,1907	14,098
Poland	40,1218	32,0247	8,09715	3,56711	16,575	6,74379	22,8708	0,67729	7,6612	5,14194	2,31541	13,0975
Germany	33,8403	31,7659	2.07437	1,41526	24,7852	2,74812	26.2995	1,22617	7.02468	3,78423	2,10072	13,5491
Italy	77,0792	76,8296	0.24956	0,83352	14,0049	0.87253	10,4394	2.28659	1,20143	0.84999	0.44308	30,073
Russia	84,1226	84,1226	0	0,21424	0.84024	0	10,7653	0	5,20852	0	0,81185	33,3911
Romania	16,8882	15,6868	1,20136	11,8624	22,5334	3,20302	5,42427	1,97453	4,30227	33,4241	1,39288	10,4827
Switzerland	45,3904	39,2794	6,11092	0,0908	28,6982	0.65633	25,374	0	10,6741	0.24904	1,80453	17,1661
Sweden	74,4874	66.5608	7.92659	5.18488	6.31052	0.54226	11.5806	0	3,95138	0	0	27.2485
Serbia, Montenegro	8,53405	4,60918	3.92487	1,11379	22,4706	1,22319	0.80448	3,28598	6.02287	57,8984	2.34729	16.9631
Slovakia	10.2036	7,60397	2,59968	4,92611	48.624	14,1951	7,68373	5,79117	6,54179	1,19982	1,0734	13,3711
Slovenia	27,1624	19,2906	7,87178	1,68629	42,1646	0	0	0	28,9868	0	0	15,2407
Ukraine	30,4793	29,8156	0,66366	42,6351	7,79284	11,3161	1,13046	3,40944	0,45987	3,12644	0,83592	15,075
USA	97,1578	96,4547	0.70305	0,59983	0,93579	0.49564	1,86037	0.15221	0,30925	0.28795	0,06642	38.9203
EU	36,8453	33,8476	2.99776	3,43669	27.8811	3.93277	12.9494	1,77735	5,16458	8,75951	1,84472	13,5166
Europe	37,7004	34,1362	3,56425	3,77945	25,8068	3,79825	11,7494	1,77212	5,00233	11,3248	1,78829	13,413
Asia	99,0179	98,7437	0.27426	0.08224	0,27263	0.1407	0.77064	0	0.05867	0.13376	0	39.922
Africa	98,491	98,491	0	0.92665	0	0	0.21774	0	0,92665	0	0,36458	39,7337
America	97.868	97.1202	0.74782	0.46357	0.74951	0.35428	1,32978		0,3159	0.20582	0.04747	39,246
Australia	98,2812	98,2812	0		0	0	3,80817		0	0,6	1,11876	39,5244
Total	45,135	41,9487	3,18628	3,35012	22,7057	3,3615	10.4567	1,56143	4,41346	9,96168	1,58044	16,1119

Figure Nr3 – Regional distributions (%) country by country 2018 (source: own presentation)

HERE (FIGURE NR3) WE USED STANDARED DEVIATION SYSTEM TO CHECK THE BEST COUNTRY AND IN RESULT WE GET ROMANIA WHICH IS LEADING THE CHART THE OTHER HAND WE HAVE BULGARIA SLIGHTLY LESS THEN ROMANIA LEADING WITH STD BY 10,3713.

THE COLOR "ORANGE" IS RESPONSIBLE FOR THE WINNER CONCERNING THE APPROACH "TRESHOLD-ORIENTED" RANKING:

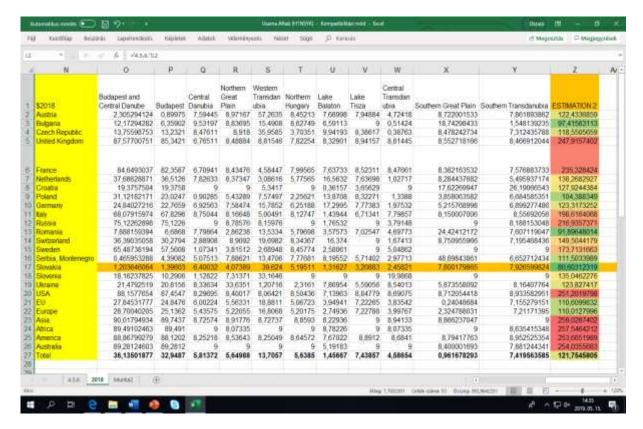


Figure Nr4 – Regional (11 regions) distributions compared to a general theoretical treshold (9%) country by country (source: own presentation)

HERE (FIGURE NR4) WE USED ABSOLUTE SYSTEM (WHERE THE DISTANCE OF EACH STATISTICAL DECLARED DISTRIBUTION VALUE GOT DERIVED COMPARED TO THE THEORETICAL TRESHOLD 100/11=9%) WE CHECKED FIGURES BY USING ABOLUTE FORMULA AND THE FIGHURE WHICH COUMES OUT IN A RESULT IS 80,60312319 AND THE FIGURE BELONGS TO BULGARIA

## THE SAME ANALYTICAL STEPS COULD BE REALIZED IN CASE OF AN OTHER YEAR (2017 – SEE FIGURE NR5):

4.5.6. Distribution of inbe		https://www.ksh.hu/docs/eng/xstadet/xstadat_annual/x/s/4_5_6ie.x/s									
Countries, countrygroup	Budopest and Central Denube	Budiquest	Central Danubia	Northern Great	Western Transdarubia	Northern Hungary	Lake Balston	Lake Tisza	Central Transchrudia	Southern Great Plain	Southern Transdanubia
\$2017											
Austria	8.3	3.7	0.6	27	69.6	0.4	14.9	0.7	4.0	n.c	2.5
Bulgaria	25.2	25.2		27	58.4	1.5	8.6	-	2.8		1.7
Czech Republic	13.2	12.9		1 32	53.8		23.4	0.0	4.1	0.0	1.6
United Hingdom	85.2	84.8	1.4	0.8	3.8		2.6	0.6	1.1	2.7	1.5
France	84.0	83.1	0.9	0.2	8.5	6.5	4.1	0.7	0.0	0.1	6.0
Netherlands	45.3	44.7		0.5	20.8		24.5	1.5	2.7	1.7	88 32.6
Croate	30.1	19.1	13.0	1.4	10.7	10-	11.5	7.8	6.5	-	32.6
Poland	26.6	25.2	1.4	8.9	13.0	14.97	23.5	2.4	1.0	30	11.7
Germany	34.0	32.4	10	0.0	29.0	9.4	23.7	1.0	38	22	7.5
Salv	70.3	76.1	0.2	0.7	19.1	2.7	5.5	8.0	1.0	0.9	1.8
Russia	87.3	87.3		2.7	3.6	1.9	6.0		0.5		0.4
Romana	12.8	11.7	1.1	10.8	14.1	3.7	2.8	0.3	1.4	53.6	0.5
Switzerland	40.3	39.1	12	0.1	23.3	3.2	15.6	0.7	5.6	21	14.6
Sweden	82.4	77.5	4.7	1.0	1.7	2.5	6.7	-	2.0	1.0	21
Sertira, Montenegro	17.0	15.7	1.4	0.9	20.4	1.7	10.6	0.7	2.5	43.5	3.2
Slovatua	58	5.7	0.7	4.0	53.3	17.9	7.5	37	67	0.4	3.2 0.5
Skwens	43.7	3.1	40.2		23 Å		16.6	16.6	-	-	
Ukraine	23.7	23.4	0.3	45.4	6.3	13.3	2.5	44	0.7	1.2	2.7
USA	95.9	93.8	2.0	0.5	0.2	1.0	0.0	-	1.7	0.5	1.3
EU	315	30.4	1.1	3.6	30.9	4.9	11.5	1.0	3.1	11.7	3.2
Europe	32.8	31.7	1.0	4.1	29.2	4.8	11.1	1.0	3.0	12.1	3.4
Asia	97.0	96.0	5.0	0.5	1.0		0.2	0.7	0.2	11	0.3
Africa	91.0	90.3	10	1.0	1.0		0.4	1.5	0.7	1.0	. 11
America	95.5	93.3	2.7	0.7	0.4	1.0	1.0		0.0	0.7	1.2
Australia	98.7	96.0		1		1.40	L pt	7.76	170	1.0	1.3
Total	40.8	39.7		3.7	26.6	4.2	9.6	0.9	2.7	10.7	3.0

FIGURE NR5: RAW DATA FOR THE YEAR 2017 (SOURCE: KSH)

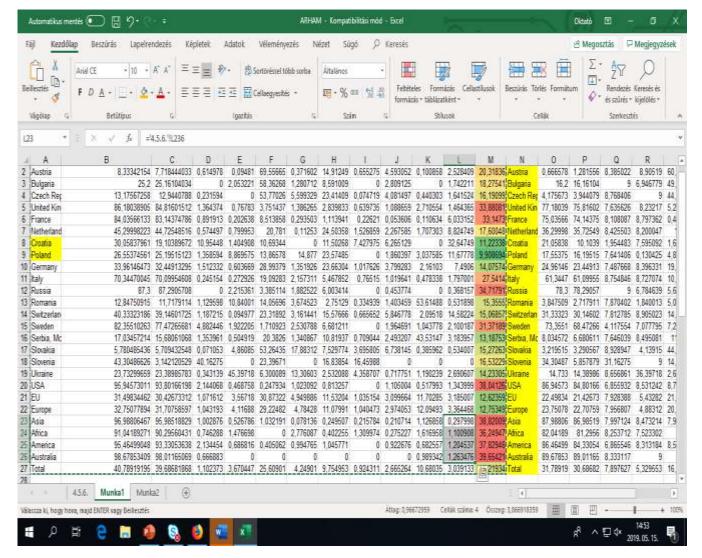


Figure Nr6 – Regional distributions (%) country by country 2017 (source: own presentation)

#### INTERPRETATION:

HERE (FIGURE NR6) THE TABLE DESCRIBES THE STANDARD DEVIATION SYSTEM (OF THE DISTRIBUTION VALUES FOR COUNTRIES). IN WHICH WE FOUND TWO BEST COUNTRIES WHICH ARE CROTIA AND POLAND. AND IMPORTANT LEGEND-ITEM IS THAT **GREEN** COLOR DESCRIBES THE BEST COUNTRY AND YELLOW COLOUR DESCRIBES THE COUNTRIES HAVING THE GREEN COLORING CODES BASED ON THE STANDARD DEVIATIONS.

REMARK: THE PUBLICATION CAN ALSO BE USED FOR TESTING THE SENSIBILITY OF READERS CONCERNING FIGURES. FIGURE NR6 HAS A LOT OF PROBLEMS:

- EACH COUNTRY NAME IS YELLOW-COLORED IN COLUMN "N".
- THERE IS A SELECTION WITHOUT ANY WANTED MEANING.
- THERE IS A COPY-SIGN AROUND THE TABLE WITHOUT ANY MEANING.
- THE HEADER OF THE COLUMNS CAN NOT BE IDENTIFIED.
- THE REDDISCH AND THE YELLOWISH COLORS DO NOT HAVE ANY LEGENDS.

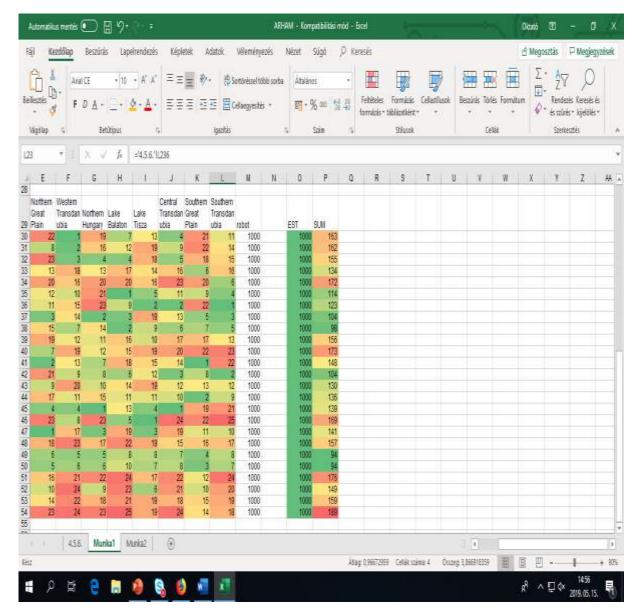


FIGURE NR7: ROBOT-ANALYSIS FOR THE YEAR 2017 (RANKED RAW DATA AND ESTIMATIONS)

HERE (FIGURE NR7) WE USED ROBOT SYSTEM IN WHICH WE DO NOT FIND THE BEST COUNTRY BUT WE FIND THE SIGN OF THE ACCURACY IN OUR DATA IN OTHER WORDS WE CHECK OUR FIGURES

URL: <a href="https://miau.my-x.hu/myx-free/coco/beker\_y0.php">https://miau.my-x.hu/myx-free/coco/beker\_y0.php</a>

REMARKS (POTENTIAL TEST-QUESTION ABOUT QUALITY ASSURANCE):

WHERE IS THE ROW-HEADER?

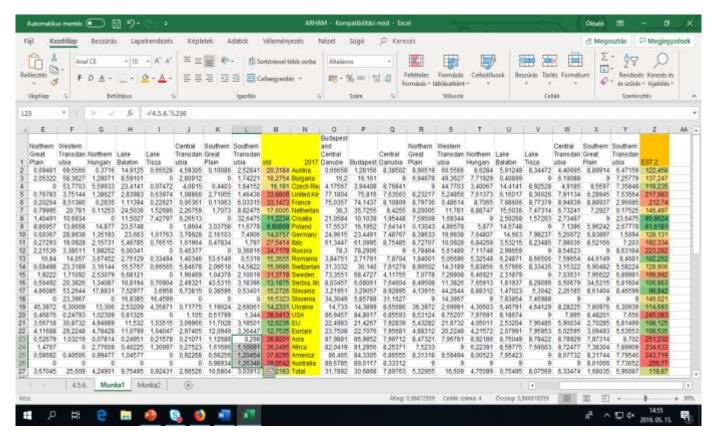


FIGURE NR8: TRESHOLD-BASED APPROACH FOR THE YEAR 2017

HERE (FIGURE NR8) WE USED ABSOLUTE SYSTEM WE USED ABSOLUTE FORMULA TO EVALUATE THE VALUES BUT IN MY CASE I GOT THE SAME COUNTRIES WHICH COMES OUT AFTER DOING STANDARD DEVIATION.

REMARKS (POTENTIAL TEST-QUESTION ABOUT QUALITY ASSURANCE):

WHERE IS THE ROW-HEADER?

#### CONCLUSIONS

THE NAÏVE APPROACHES DELIVER "SOLUTIONS" FOR THE QUESTION: WHAT IS THE BEST COUNTRY IF WE SEARCH FOR THE MOST BALANCED COUNTRY CONCERNING THE HUNGARIAN TOURISTIC REGIONS. THE QUESTION COULD BE RELEVANT, IF THE RISK OF A MARKETING ACTION SHOULD BE MINIMIZED AND THE MOST BALANCED COUNTRY CAN REACT TO EACH KIND OF MARKETING MESSAGES. THE COUNTRIES WHERE THE BALANCING EFFECTS CAN NOT BE IDENTIFIED, WILL ONLY REACT IF THE PARTICULAR REGION IS PROMOTED...

THE JOKES HAVE A RELEVANT TESTING POTENTIAL TO SEE WHAT KIND OF THEORETICAL STABILITY CAN BE IDENTIFIED BEHIND OF ROUTINE ACTIONS?!

### REFERENCES

https://miau.my-x.hu/miau/quilt/2017.xls

https://miau.my-x.hu/miau/quilt/2018.xls

https://miau.my-x.hu/myx-free/coco/index.html