Suggest and Compute Process Performance Indicators from Event Logs

Appendix

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1 Quantitative Evaluation

Table 1, Table 2 and Table 3 present the results for GPT and the occurrence perspective.

Specifically for each run in Table 1 we manually tagged the full set of PPIs derived from all activities stored in the log. For Tables 2 and 3, we selected 30% of the activities from the log and manually tagged 30% of the PPIs for each selected activity. Based on the results, we observe that in each run, the number of PPIs that were correctly/incorrectly (A/B) translated from the suggestion stage and then accurately computed consistently exceeded the number of PPIs resulting in an error or empty value (C/D). However, it is worth noting that, in contrast to the analysis conducted for the time perspective, the number of incorrectly translated PPIs (B) exceeds the number of correctly translated PPIs (A). This indicates that, for the occurrence category, more PPIs were incorrectly translated from the suggestion stage than were correctly translated.

Table 1: Domestic Declarations - Occurrence

Runs	**A**	**B**	**C**	**D**
#1	39	178	50	20
#2	49	194	46	19
#3	274	203	42	22
#4	65	218	51	25
#5	58	171	51	22
#6	65	193	51	28
#7	93	214	52	26
#8	80	205	51	23
#9	83	218	63	28
#10	86	195	50	24
Total	**692**	**1989**	**507**	**237**

Table 2: IT Incident Management - Occurrence

Runs	**A**	**B**	**C**	**D**
#1	11	51	10	3
#2	16	45	8	3
#3	13	54	8	3
#4	17	49	8	5
#5	21	41	8	7
#6	19	36	9	4
#7	10	57	8	0
#8	19	44	5	2
#9	18	35	7	6
#10	21	36	13	1
Total	**165**	**448**	**84**	**34**

Table 3: Manuscript Review - Occurrence

Runs	**A**	**B**	**C**	**D**
#1	21	66	17	2
#2	17	62	19	1
#3	19	72	13	1
#4	26	66	13	4
#5	19	71	8	2
#6	26	66	8	2
#7	27	61	19	1
#8	18	67	14	1
#9	22	71	11	0
#10	21	78	14	1
Total	**216**	**680**	**136**	**15**