

It is aimed to discover the decision-making nature of activities, called Decision-Making Logic (DML) level. We use the following DML levels: routine, semi-cognitive and cognitive. For this purpose, we compile a DML taxonomy. Using a Latent Dirichlet Allocation Algorithm, we identify most important keywords in the text corpus. Each of the keywords is associated with a DML level. While organizing identified keywords into one of the three DML levels, we consider diverse semantic concepts of business processes: *Resources* (nouns indicating the specificity of BP elements), *Techniques* (verbs of knowledge and information transformation activity affecting *Resources*), *Capacities* (adjectives describing situation specificity of *Techniques*), and *Choices* (adverbs determining the selection of the required set of *Techniques*), elements of RTCC framework.

We designed contextual variables, based on which experts categorized words into one of the four RTCC semantic concepts based on the part-of-speech and assigned it to one of the three DML levels. As a result, DML taxonomy has been compiled. Based on the relative occurrence of DML keywords in the ticket texts, the DML level of the ticket was assigned as shown below.

Ticket description	Ticket description (preprocessed)	DML keywords and their number																				Sum	Total			Total relative distributions			Assigned DML				
		Routine							Semi-cognitive							Cognitive							Total <u>Routine</u>	Total <u>Semi-cognitive</u>	Total <u>Cognitive</u>	Total Relative <u>Routine</u>	Total Relative <u>Semi-cognitive</u>	Total Relative <u>Cognitive</u>					
		<u>Resources</u>	N	<u>Techniques</u>	N	<u>Capacities</u>	N	<u>Choices</u>	N	<u>Resources</u>	N	<u>Techniques</u>	N	<u>Capacities</u>	N	<u>Choices</u>	N	<u>Resources</u>	N	<u>Techniques</u>	N									<u>Capacities</u>	N	<u>Choices</u>	N
Dear colleagues, please apply SAP R3 PSU patches on server XXX.YYY.ZZZ for database AAA.BBB.CCC. Attachments - READ RunBook !!! ***** Minimum lead time - 10hrs 45mins***** ***** !!! Otherwise the ticket will be rejected. Disaster recovery tests are prepared by XYZ	dear colleague pleas appll psu patch server databas attachment read runbook minimum lead time otherwis ticket reject disast recoveri test prepar	psu, patch, database, server, attachment	5	apply, reject	2	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	7	7	0	0	100%	0%	0%	Routine