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CORRIGENDUM

"CPT-TODIM METHOD FOR INTERVAL-VALUED BIPOLAR FUZZY MULTIPLE ATTRIBUTE GROUP DECISION MAKING AND APPLICATION TO INDUSTRIAL CONTROL SECURITY SERVICE PROVIDER SELECTION"

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Mengwei Zhao, Guiwu Wei, Yanfeng Guo, Xudong Chen, authors of the article "CPT-TODIM method for interval-valued bipolar fuzzy multiple attribute group decision making and application to industrial control security service provider selection", published in *Technological and Economic Development of Economy*, *27*(5), 1186–1206, inform that several errors occur in σ_1 and σ_3 values, comprehensive predominance matrix β, and Table 8, which can be corrected as follows:

In page 1199, σ_1 should be:

$$\sigma_1 = \left(\sigma_1\left(R_v, R_g\right)\right)_{5\times 5} = \begin{array}{c} \\ R_1 \\ R_2 \\ R_3 \\ R_4 \\ R_5 \end{array} \begin{array}{c} \begin{array}{ccccc} R_1 & R_2 & R_3 & R_4 & R_5 \end{array} \\ \begin{pmatrix} 0 & 0.0230 & 0.0650 & 0.0268 & 0.0778 \\ -0.8005 & 0 & 0.0473 & 0.0054 & 0.0607 \\ -2.2622 & -1.6473 & 0 & -1.5262 & 0.0180 \\ -0.9339 & -0.1869 & 0.0438 & 0 & 0.0577 \\ -2.7092 & -2.1118 & -0.6266 & -2.0083 & 0 \end{pmatrix} \end{array}.$$

In page 1199, σ_3 should be:

$$\sigma_3 = \left(\sigma_3\left(R_v, R_g\right)\right)_{5\times 5} = \begin{array}{c} \\ R_1 \\ R_2 \\ R_3 \\ R_4 \\ R_5 \end{array} \begin{array}{c} \begin{array}{ccccc} R_1 & R_2 & R_3 & R_4 & R_5 \end{array} \\ \begin{pmatrix} 0 & 0.0146 & 0.0685 & 0.0092 & 0.0521 \\ -0.5681 & 0 & 0.0582 & -0.2534 & 0.0414 \\ -2.6705 & -2.2673 & 0 & -2.4312 & -0.8323 \\ -0.3604 & 0.0065 & 0.0624 & 0 & 0.0461 \\ -2.0325 & -1.6122 & 0.0214 & -1.7955 & 0 \end{pmatrix} \end{array}.$$

In page 1199, in Step 6, and the comprehensive predominance matrix β should be:

$$\beta = \left(\beta\left(R_v, R_g\right)\right)_{5\times 5} = \begin{array}{c} \\ R_1 \\ R_2 \\ R_3 \\ R_4 \\ R_5 \end{array} \begin{array}{c} \begin{array}{ccccc} R_1 & R_2 & R_3 & R_4 & R_5 \end{array} \\ \begin{pmatrix} 0 & 0.0679 & -0.9401 & 0.0763 & -0.3587 \\ -2.4723 & 0 & -1.3229 & -0.2299 & -0.7762 \\ -8.5483 & -7.0668 & 0 & -6.6658 & -3.9319 \\ -2.9292 & -0.9730 & -1.3313 & 0 & -1.3320 \\ -5.4320 & -3.8126 & -1.2846 & -3.7580 & 0 \end{pmatrix} \end{array}.$$

In page 1202, Table 8 should be:

Table 8. The outcomes of parameters ε, π and κ varying separately

$\pi=0.88,\kappa=0.88$			$\varepsilon=2.25,\kappa=0.88$			$\varepsilon=2.25,\pi=0.88$		
ε	NCPD	The order	π	NCPD	The order	κ	NCPD	The order
1	$\chi(R_1)=1$ $\chi(R_2)=0.8468$ $\chi(R_3)=0$ $\chi(R_4)=0.7761$ $\chi(R_5)=0.4679$	$R_1>R_2>R_4>R_5>R_3$	0.1	$\chi(R_1)=1$ $\chi(R_2)=0.8298$ $\chi(R_3)=0$ $\chi(R_4)=0.7457$ $\chi(R_5)=0.4564$	$R_1>R_2>R_4>R_5>R_3$	0.1	$\chi(R_1)=1$ $\chi(R_2)=0.5768$ $\chi(R_3)=0$ $\chi(R_4)=0.3189$ $\chi(R_5)=0.2321$	$R_1>R_2>R_4>R_5>R_3$
3	$\chi(R_1)=1$ $\chi(R_2)=0.8560$ $\chi(R_3)=0$ $\chi(R_4)=0.7857$ $\chi(R_5)=0.4776$	$R_1>R_2>R_4>R_5>R_3$	0.3	$\chi(R_1)=1$ $\chi(R_2)=0.8395$ $\chi(R_3)=0$ $\chi(R_4)=0.7639$ $\chi(R_5)=0.4645$	$R_1>R_2>R_4>R_5>R_3$	0.3	$\chi(R_1)=1$ $\chi(R_2)=0.6886$ $\chi(R_3)=0$ $\chi(R_4)=0.5112$ $\chi(R_5)=0.3327$	$R_1>R_2>R_4>R_5>R_3$
5	$\chi(R_1)=1$ $\chi(R_2)=0.8579$ $\chi(R_3)=0$ $\chi(R_4)=0.7876$ $\chi(R_5)=0.4795$	$R_1>R_2>R_4>R_5>R_3$	0.5	$\chi(R_1)=1$ $\chi(R_2)=0.8468$ $\chi(R_3)=0$ $\chi(R_4)=0.7746$ $\chi(R_5)=0.4699$	$R_1>R_2>R_4>R_5>R_3$	0.5	$\chi(R_1)=1$ $\chi(R_2)=0.7660$ $\chi(R_3)=0$ $\chi(R_4)=0.6403$ $\chi(R_5)=0.3990$	$R_1>R_2>R_4>R_5>R_3$
7	$\chi(R_1)=1$ $\chi(R_2)=0.8587$ $\chi(R_3)=0$ $\chi(R_4)=0.7885$ $\chi(R_5)=0.4804$	$R_1>R_2>R_4>R_5>R_3$	0.7	$\chi(R_1)=1$ $\chi(R_2)=0.8516$ $\chi(R_3)=0$ $\chi(R_4)=0.7807$ $\chi(R_5)=0.4736$	$R_1>R_2>R_4>R_5>R_3$	0.7	$\chi(R_1)=1$ $\chi(R_2)=0.8200$ $\chi(R_3)=0$ $\chi(R_4)=0.7284$ $\chi(R_5)=0.4452$	$R_1>R_2>R_4>R_5>R_3$
9	$\chi(R_1)=1$ $\chi(R_2)=0.8592$ $\chi(R_3)=0$ $\chi(R_4)=0.7889$ $\chi(R_5)=0.4809$	$R_1>R_2>R_4>R_5>R_3$	0.9	$\chi(R_1)=1$ $\chi(R_2)=0.8547$ $\chi(R_3)=0$ $\chi(R_4)=0.7843$ $\chi(R_5)=0.4761$	$R_1>R_2>R_4>R_5>R_3$	0.9	$\chi(R_1)=1$ $\chi(R_2)=0.8576$ $\chi(R_3)=0$ $\chi(R_4)=0.7892$ $\chi(R_5)=0.4789$	$R_1>R_2>R_4>R_5>R_3$

The authors regret the errors.