Corrigendum to "Transmuted geometric distribution with applications in modelling and regression analysis of count data"

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In our paper "Transmuted geometric distribution with applications in modelling and regression analysis of count data" (Chakraborty and Bhati, 2016) there is a mistake in the expression for the variance $\mathbb{V}(Y)$, which induced a wrong expression for the Index of Dispersion (ID) in Table 1, a wrong figure in Figure 2(c) and a wrong sentence in the paragraph just preceding Remark 5. These were noticed only after the article was published. These corrections, as well as few corrections in Table 6 and a correction of one reference, are as follows:
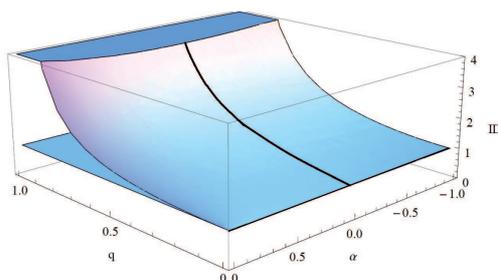
i. In Table 1 S.No. 2 the correct expression for $\mathbb{V}(Y)$ should be read as,

$$\frac{q\left(1-\alpha+q\left(2+q(1-\alpha)-\alpha^2\right)\right)}{\left(1-q^2\right)^2}$$

ii. In Table 1 S.No. 3 the correct expression for Index of Dispersion (ID) should be read as,

$$\frac{1-\alpha+q\left(2+q(1-\alpha)-\alpha^2\right)}{\left(1-q^2\right)\left(1+q-\alpha\right)}$$

iii. Figure 2(c) should be seen as,

Figure 2(c): *$q-\alpha$ surface plot of Index of Dispersion of $\mathscr{TGD}(q,\alpha)$*

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iv. Finally in pages 161-162 the sentence "Further, Figure 2(c) shows that the horizontal q-α surface cuts the ID surface at 1 indicating under or over-dispersion for $\alpha \in (1,0)$ or $(0,1)$ respectively (see Remark 3)" should be corrected as "Further, Figure 2(c) shows that the horizontal q-α surface is always above 1 indicating over-dispersion for all the values of α". In Table 6: column 5, row 2, -0.983 should be read as 0.0; column 6, row 2, 0.2228 should be read as 1.255; column 5, row 9, -0.1160 should be read as -0.1559.

v. In the references, page 175, publication year of Sastry et al.'s reference should be read as 2014.

Both authors apologize for these errors.

References

Chakraborty, S., and Bhati, D. (2016). Transmuted geometric distribution with applications in modelling and regression analysis of count data. *SORT-Statistics and Operations Research Transactions*, 40(1), 153–176. URL: http://www.idescat.cat/sort/sort401/40.1.7.chakraborty-bhati.pdf
DOI: 10.2436/20.8080.02.39