Sensitivity analysis in data envelopment analysis for the case of non-discretionary inputs and outputs

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Abstract: Sensitivity analysis of the additive model in data envelopment analysis is studied for the case of discretionary inputs and outputs. Sufficient conditions for the case of the simultaneous increase of discretionary inputs and decrease of discretionary outputs of a Pareto–Koopmans efficient decision making unit preserving efficiency are established. Simillar results for the proportionate change of discretionary inputs and outputs are also given. A numerical example illustrating the results is provided.