Existence of solutions for abstract Economics equilibrium problems and algorithm

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In this paper, we studied a new kind of vector equilibrium problem, we proved the existence of solutions for this kind of equilibrium problem by using the section theorem and KKM theorem these two tools, then we generalized this kind of vector equilibrium problem to a more general case. Equilibrium problems with lower and upper bounds is a open problem proposed by Isac, Sehgal and Singh in 1999. In this paper we derived some more results of the open problem on certain conditions, constructed an iteration algorithm, and discussed the convergence of the algorithm.