A further generalization of Kakutani's fixed point theorm in KKM spaces

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In 1941 S. Kakutani proved an important fixed point theorem (any upper semicontinuous nonempty closed convex-valued multifunction $F : K \to K$ has at least one fixed point, where $K \subseteq \mathbb{R}^n$ is nonempty, compact and convex set of \mathbb{R}^n). In this paper we present new extension of Kakutani's theorem. Our result generalize the fixed point theorems obtained by S. Eilenberg and D. Montgomery, F. H. Bohnenblust and S. Karlin, I. L. Glicksberg, K. Fan, C. J. Himmelberg, E. Tarafdar [5] and S. Park [1, 2, 3, 4].

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