ELM crash suppressions have been achieved by low $n$ ($n = 1, 2, \text{and mixture of them}$) magnetic perturbations (MPs) with using various configurations of in-vessel perturbation coils in KSTAR [1][2]. So far, the suppressed periods are extended longer than 10 seconds. In KSTAR, the complete suppression of ELM crashes almost always accompany with the increase of edge fluctuations which are likely to be excited by applied MPs. The excitation of edge fluctuation exhibited the bifurcation-like feature depending on the strength of MPs. The conditions to excite edge fluctuations were investigated with including well known $q_{95}$ window. On the other hand, ELM mitigation does not come with the increase of edge fluctuations. Instead, it seems that applied MPs directly trigger small frequent ELMs since the mitigated ELMs suddenly disappear when turning MPs off. The results stress the importance of stability analysis with the use of perturbed equilibrium since most stability studies have assumed unperturbed/undistorted equilibrium. [1] Y.M. Jeon et al., Phys. Rev. Letters 109, 035004 (2012). [2] J. Kim et al., submitted to Nucl. Fusion.