I will speak about a generalization of a paper by Haagerup and Thorbjørnsen, where we obtain norm convergence of polynomials in independent unitary Haar distributed random matrices. I will explain how this result helps us to understand the typical behaviour of random quantum channels. This is a report on joint works with Serban Belinschi, Camille Male, Motohisa Fukuda, Ion Nechita. (Received September 19, 2012)