Global e-commerce platforms present new export opportunities for small and medium-sized enterprises in developing countries by significantly lowering the entry barriers of exporting. However, the lack of market selection can lead to a large number of online firms competing for consumers' attention, resulting in severe congestion in consumers' search process. When firms' intrinsic quality is not perfectly observed, these search frictions can further slow down the resolution of the information problem and hinder market allocation towards better firms. In this paper, we investigate how search and information frictions shape firm dynamics and market evolution in global e-commerce. Using detailed data from AliExpress as well as a rich set of self-collected objective quality measures, we provide stylized facts that are consistent with the presence of search and information frictions. Moreover, using a randomized experiment that offers exogenous demand and information shocks to small prospective exporters, we establish that firms with larger past sales have an advantage in overcoming the search friction and generating future orders. This indicates that initial demand shocks could confound firms' true quality in determining firm growth and the long-run market structure. We construct and estimate an empirical model of the online market that are consistent with our descriptive and experimental findings and use the model to quantify the extent of demand-side frictions. Counterfactual analyses show that alleviating information frictions and reducing the number of firms can help to improve allocative efficiency and raise consumer welfare.