Market structure as represented by market concentration and competition affects the technical efficiency of the banking industry. However, the direction of the relationship between market structure and technical efficiency is mixed given the existence of two opposing schools of thought, specifically the structure-conduct-performance paradigm and the efficient market hypothesis. The purpose of this research study is to determine which of these schools of thought holds in the Kenyan banking industry by studying the impact of bank competition and concentration on the technical efficiency of commercial banks in the country. The study uses interest revenue as a measure of technical efficiency while considering other factors such as bank specific risk and the macroeconomic factors. It seeks to answer the question whether a high market concentration and low market competition leads to excessively high interest revenue.

The study is based on a panel dataset of the entire banking population in Kenya ranging from the years 2007-2012. It incorporates the Panzar-Rosse model to obtain the determinants of the interest revenue earned by banks and includes the Herfindahl index as one of the possible determinants. A fixed effects estimation method is employed to determine the significance of market concentration on bank interest revenue. The estimation method also gives rise to the H statistic - a key variable in the Panzar-Rosse model that serves as a measure of market competition.

The results reveal that market concentration is not significant in determining the interest revenue earned by banks possibly as a result of the smaller focus that the Panzar-Rosse model directs to the effects of market concentration as represented by the Herfindahl index. They also reveal that the Kenyan banking industry faces a mildly oligopolistic structure with a H statistic of 0.23 which is statistically insignificant from zero. The low level of competition is attributed to market fragmentation as observed by the varying levels of competition from one segment to another.

This market fragmentation may be based on size or on the ownership structure of the commercial banks.