THE IMPACT OF COMPETITION ON BANKS EFFICIENCY

DO BUSINESS MODEL AND CORPORATE GOVERNANCE MATTER: EVIDENCE FROM DUAL BANKING SYSTEMS

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Introduction

Islamic banking industry has unprecedentedly witnessed a rapid growth since its inception four decades back in the late 1970s. However, the prospect of this flourishing industry is fast becoming gloomy in recent years. The growth of Islamic banking almost matches the conventional banking, and their products are hardly distinguishable. Although the market growth slows down in the aftermath of the global financial crises in 2008, the Islamic banking market has witnessed increasing competition. Islamic banks become more competitive and they managed to increase their market share meanwhile, conventional banks have successfully responded to the challenge by launching Islamic windows and subsidiaries. The increasing competition is considered as one of the main challenges that face Islamic banks, specifically, their performance.

Academic literature has extensively investigated the impact of competition on performance, mainly within the Structure-Conduct-Performance paradigm. In this regard, two competing hypotheses have been advanced in explaining the implications of competition on bank efficiency: the "Competition-Efficiency Hypothesis" and the "Competition-Inefficiency Hypothesis". The former assumes that banks' managers in concentrated markets enjoy a quiet life. Thus, competitive pressures would push them to enhance the performance by minimizing discretionary expenses and increasing their level of cost efficiency. Meanwhile, the later argues that banks in a less competitive market could be more efficient. Because large banks in a concentrated market have the advantage of scale economies; hence, they can improve their cost efficiency. Thus, the theoretical literature provides conflicting arguments regarding the relationship between competition and efficiency while the empirical literature is mixed, and the argument still unsettled. Moreover, a recent evidence shows that competition-efficiency relationship is affected by the business model and corporate governance of the banks. Thus, the relationship may vary across different types of banks.

The increasing competition and the recent slow growth in Islamic banking might indicate a negative impact of competition on efficiency in dual banking systems. There are raising concerns about the implications.

Indeed, the increasing competition and the recent slow growth in Islamic banking might indicate a negative impact of competition on efficiency in dual banking systems. There are raising concerns about the implications of changing banking structures and increasing competition in these niche markets. However, the impact of competition on banks efficiency is poorly documented for dual banking systems and no consensus prevails in the literature on the implications of concentration on bank efficiency.

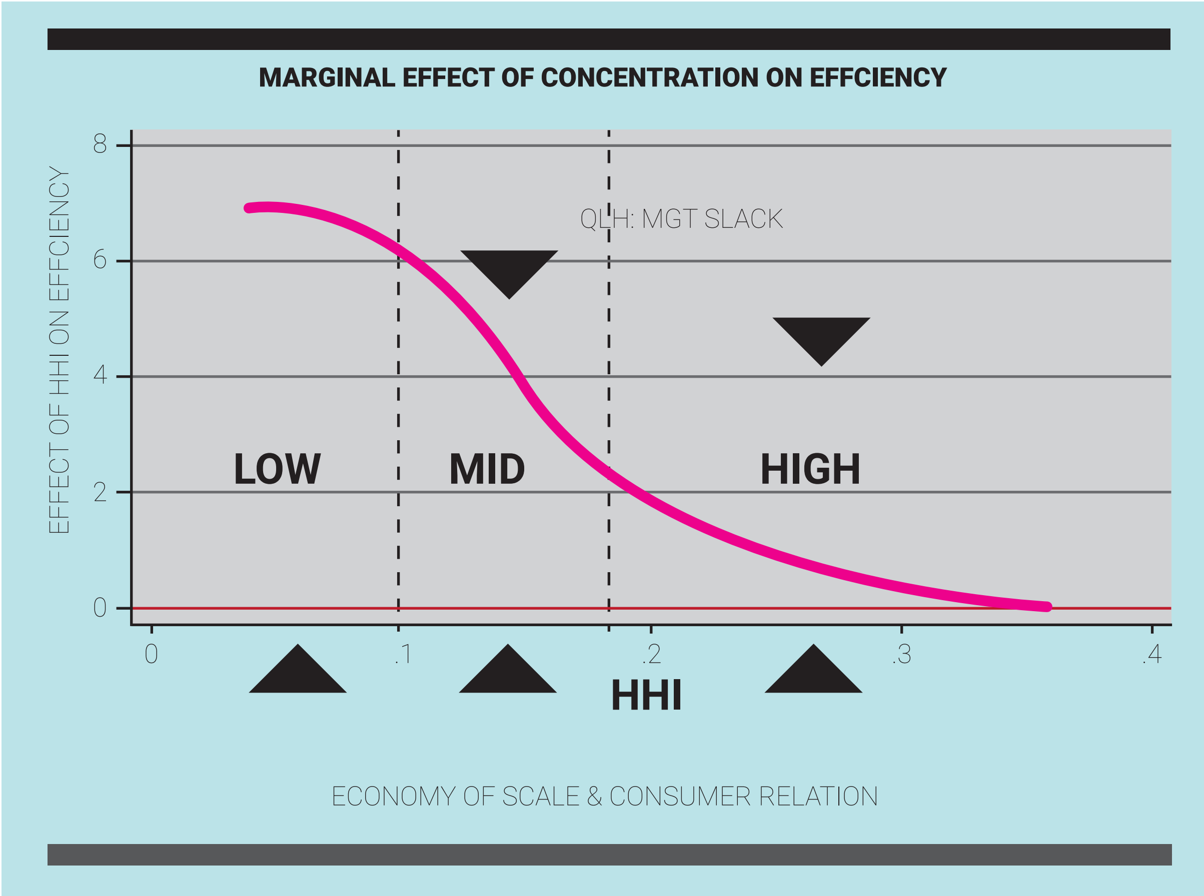
This paper fills the gap by examining the mentioned relationship for conventional and Islamic banking, which calls for a comparative analysis. Moreover, it contributes to the literature by examining whether the efficiency of banks with different business models and corporate governance would respond differently to changes in competition.

Specifically, this paper measures the level and evolution of banking competition under a dual banking system in Islamic countries. Then, it studies the impact of competition on efficiency in the banking industry in these markets. Furthermore, it compares the competition-efficiency relationship across the different types of banks to explore whether the different business models and corporate governance affect the mentioned relationship.

In order to achieve the set objectives, we use a sample of 64 Islamic banks and 199 conventional banks over the period 2001-2014 operating in 10 countries where Islamic banks has a significant share of the total banking system or countries where Islamic banks achieve significant high growth. The aggregate assets of the Islamic banks in our sample covers more than 90% of the aggregate assets of Islamic banks globally. We obtained the measure of efficiency and its determinants using the stochastic frontier analysis where the determinants of technical inefficiency are embedded within the stochastic frontier function in one step. In specific, we use Wang's model to allow competition to parameterize both the level and the variance of inefficiency. This helps in investigating the non-linear and additive relationship between competition and efficiency. Further, we use graph analysis of the marginal effect to illustrate the non-linearity of the relationship and to thoroughly examine the relationship across the different types of banks.

The findings

The analysis of market structure and competition shows an increasing number and market share of Islamic banks over the last fifteen years, which spurs the competition in dual banking systems. with regards to efficiency, the findings support competition-inefficiency hypothesis where the increasing competition in the banking market leads to decreases in the cost efficiency of the banks in the market. One explanation might be that few large banks in high concentrated market are able to utilise the economics of scale to achieve higher levels of efficiency compared to many small banks in low concentrated market. Another explanation might be that the higher ability of the customers to do banking shopping in the competitive market which results in a



This figure illustrates the marginal effect of concentration on inefficiency in dual banking systems.

> Quiet life hypothesis emphasizes that the managers of the banks in less competitive markets may take advantage of the market power of their banks in term of personal benefit by relaxing their effort, which leads to cost-inefficiency.

shorter life span of bank-borrower relationship. A shorter bank-borrower relationship decreases the bank's efficiency.

While the basic findings support competition-inefficiency hypothesis, further investigation of the non-linear impact shows an evidence of quiet life hypothesis. Quiet life hypothesis emphasizes that the managers of the banks in less competitive markets may take advantage of the market power of their banks in term of personal benefit by relaxing their effort, which leads to cost-inefficiency. Our findings show that the quiet life hypothesis seems to hamper the negative effect of competition on efficiency when banks operate in concentrated market. Additionally, the negative effect of competition on cost efficiency is almost counterbalanced in highly concentrated markets.

We further examine whether the marginal effects of competition on efficiency differ across banks types.

Interestingly, the findings show that the impact of concentration on efficiency is higher for Islamic banks compared to conventional banks. We suggest few explanations for these results. Firstly, in dual banking systems, Islamic banks faced higher competition than conventional banks, especially in markets where conventional banks are allowed to open Islamic windows. Secondly, based on the theoretical religious incentives of Islamic banks, we propose that quiet life hypothesis is less probable to exist in Islamic banks compared to conventional banks. The Islamic ethics of trading encourage charging fair prices, thus, Islamic banks may not charge the maximal price accorded by their market power. The managers in Islamic banks may adhere to Islamic work ethics, and hence they would work efficiently and might not relax their efforts. Thirdly, the quiet life hypothesis is less probable to exist in Islamic banks due to their distinct business model and corporate governance. Islamic banks accept the customer deposits mainly through profit & loss sharing investment accounts. Investment account holders are more willing to discipline the management of the bank than conventional depositors do. The corporate governance framework of Islamic banks includes Sharia governance framework, which add another layer that exercise more disciplining on the management. The extra disciplining mechanism in Islamic banks provides them a level of immunity to quiet life hypothesis.

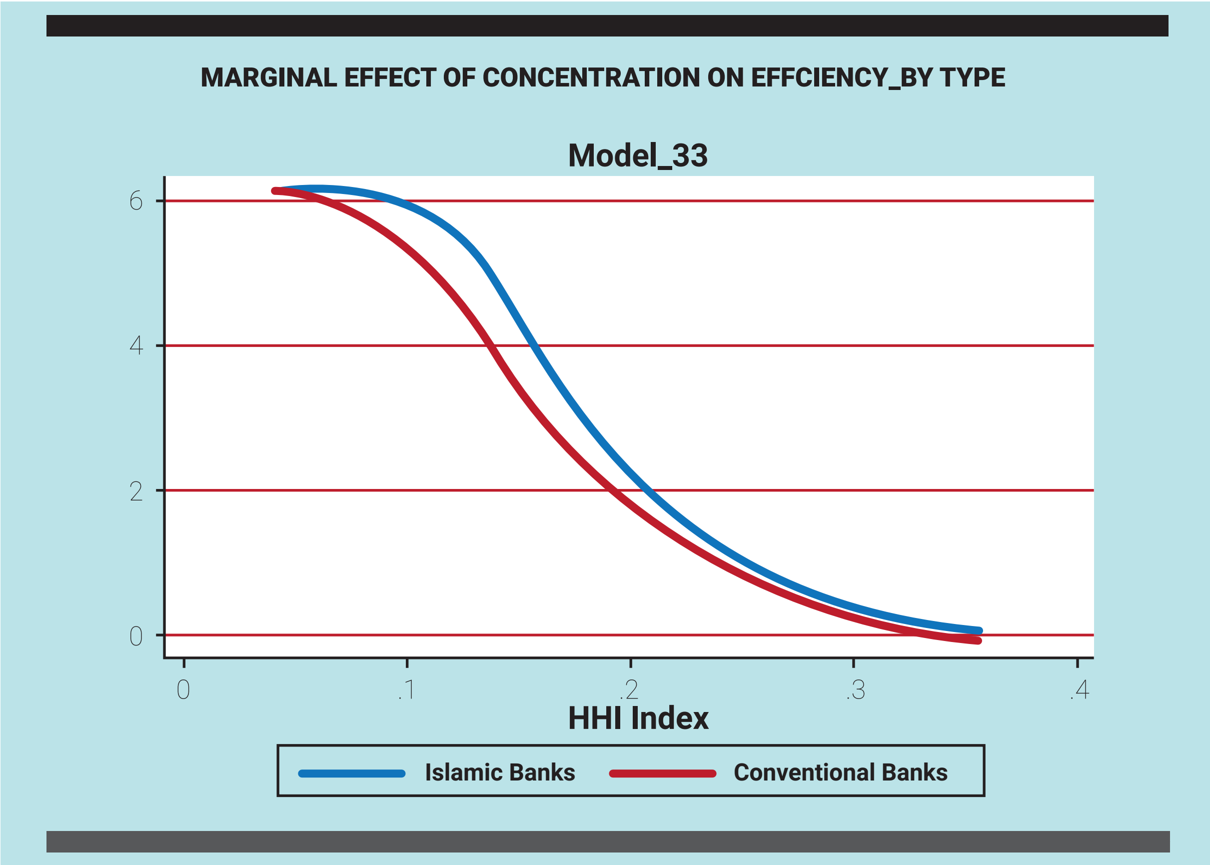
Furthermore, the analysis of the impact of competition on the variance of efficiency shows that banks in the higher concentrated markets have more varied efficiencies. In addition, we find that the market of Islamic banks is more homogenous in term of cost efficiency than the market of conventional banks.

To add credence to the findings of this research, a variety of robustness checks are performed. The robustness checks involve extensions of the baseline model specifications, and modification of the sample by including only countries with higher presence of Islamic banks. The results show consistency across the different estimations.

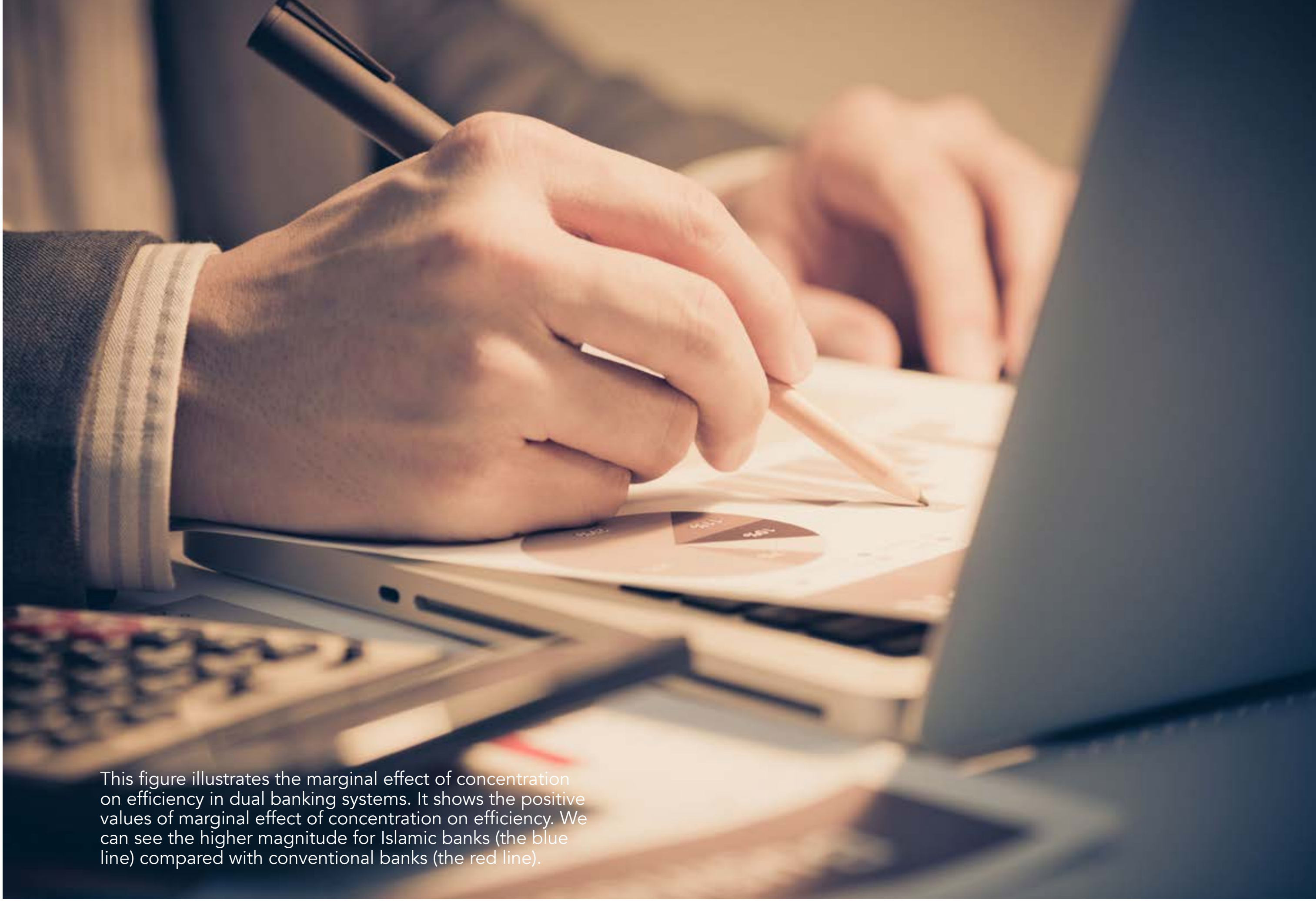
Policy implications

The findings of this paper suggest an important policy implications, especially regarding the regulation of the market structure in dual banking systems. In general, competition produces welfare gains. However, this paper finds that competition leads to cost-inefficiency of banks in dual banking system. Thus, the regulators in dual banking systems face a trade-off when they want to apply pro-competitive policies. A more competitive market promotes greater consumer welfare, yet it harms the efficiency of the banks. While, less competitive market induces banks efficiency but negatively affects consumer welfare.

However, in a highly concentrated market, the impact of competition on efficiency is almost



This figure illustrates the marginal effect of concentration on efficiency in dual banking systems. It shows the positive values of marginal effect of concentration on efficiency. We can see the higher magnitude for Islamic banks (the blue line) compared with conventional banks (the red line).



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counterbalanced, suggesting that there is no efficiency gains in increasing the concentration in the markets which are already highly concentrated. Hence, pro-competitive policies will generate social welfare without harming banks efficiency.

Moreover, we explain that the dominance of competition-inefficiency hypothesis might be a result of efficiency gains achieved by big banks through economics of scale. This raises the concerns about the size of Islamic banks. In general, Islamic banks are smaller in size compared to conventional banks. Additionally, in most of the dual banking markets, the regulator allows conventional banks to launch Islamic windows or subsidiaries, which allows them to achieve efficiency gains through economies of scales. Therefore, regulators need to pay more attention to the efficiency of full fledged Islamic banks. They may encourage the establishment of big full-fledged Islamic banks through mergers.

Moreover, this research suggests important implications for the banking industry since understanding the market structure of the industry is very essential for planning for business strategy. As emphasized by Proter's "Competitive Strategy", competitive intensity is one of the major forces in the industry which explain the performance of firms in the industry. For Islamic banks in dual banking systems, the increasing competition in the Islamic banking market is a main challenge. It affects banks efficiency negatively through the economies of scale or through shorter bank-customer relationship. Conventional banks have responded to the increasing competition, they have amended their business strategy and made inroads into Islamic finance business by establishing their Islamic windows and subsidiaries. Hence, the conventional bank with its Islamic subsidiary maintain the bank-customer relationship and maintain the size. In contrast, full fledged Islamic banks are smaller than the conventional banks (and in some cases, smaller than their subsidiaries) where competition is tilted in favour of the latter. Thus, in order to compete head-on with conventional banks, full-fledged Islamic banks may look for strategic mergers to benefit from economic of scale and level the playing field with the conventional banks.

As an alternative, Islamic banks may adopt a product differentiation strategy by creating and emphasizing the ethical values in their products which are in line with the ultimate Shariah objectives.