Competition in Banking Industry: A Literature Review

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Abstract—Market power and competition has been an important field of study in the banking industry. This paper tries to look at studies which have assessed competition and market power. In the process, this paper reviews the methodological and empirical developments on studies related to market power and competition in the banking industry. The literature review focuses on the empirical banking literature with established insights from studies of banking competition. It also focuses on assessment of the different methodological approaches on banking competition and review of theories on competition in Banking system.

Keywords—Banking, Competition, Market Power

I. INTRODUCTION

The field of Industrial Organization studies the behavior of firms and interaction between them. After Cournot, theories focused on behavior of firms in various competitive structures and mathematical models were not preferred. The earlier most notable empirical model was developed by Bain and is called the Structure-Conduct-Performance Paradigm. The S-C-P paradigm investigates whether a highly concentrated market causes a collusive behavior among large firms resulting in superior market performance. The S-C-P paradigm treated the number of firms or the concentration of firms as an exogenous shifter in regressions of industrial profitability, thus relating profitability to structure. S-C-P was criticized, arguing that if an industry has no entry and exit barriers, there can be high level of competition in a highly concentrated market. A firm will be work at high efficiency levels to prevent entry of newer firms. This argument came to be known as Baumol’s theory and later on this debate was taken over by game theoretic models. Game theory was used with S-C-P paradigm to develop more robust models. Strategic models were developed based on repeated Game Theory [35]. However, the use of Game Theory led to inter-industry comparisons which had a major flaw and led to significant interest in this domain and many models enunciated [9]. The accounting standards of different industries differed and inter-industry comparison based on accounting data was flawed. These models were not able to provide empirical analysis, capable of estimating the magnitude of welfare or losses.

New Empirical Industrial Organization (NEIO) was coined by Bresnahan in 1989 and it again focused on intra-industry comparison. Bresnahan categorically mentioned that inter-industry comparison does not give a fair idea of competition as different accounting standards are used in different industries and it was better to focus on intra-industry comparisons [11]. NEIO brought about empirical analysis by measuring degree of market power and introduced a proper measure of conduct by adding a variable called Conjectural Variations [5]. Another variation of NEIO is known as Non-Structural Model. Klein [22] provided the first complete firm-theoretic analysis examining banks as firms utilizing inputs—funds obtained from issuing liabilities and equity capital and services of physical inputs—to produce outputs in the form of earning assets. Theory suggests that banking competition can be inferred directly from the mark-up of prices over marginal cost [23]. In practice, this measure is often hard to implement due to lack of detailed information on the costs and prices of bank products. Literature has proposed various indirect measurement techniques to assess the competitive climate in the banking sector. These methods can be divided into two main streams: Structure-Conduct-Performance [SCP] paradigm of Mason [25] and Bain [2].

In recent years, increasing number of articles have investigated competition in the banking industry. Internationalization, worldwide liberalization of financial markets and banking harmonization has raised broad interest in this topic. Obviously, competition in the banking sector has a major impact on the wealth of consumers and companies and affects the performance and financial health of banks. Banking sector liberalization, financial markets deregulation, financial innovations and merger and consolidation of financial services sector have called for assessing the level of competition in the banking sector. The literature review focuses on the empirical banking literature with established insights from studies of banking competition. It also focuses on assessment of the different methodological approaches on banking competition and review of theories on competition in Banking system.
II. COMPETITION: A THEORETICAL PERSPECTIVE

Structure Conduct and Performance [SCP] paradigm conveys that economic performance of an industry is a function of the conduct of buyers and sellers which, in turn, is a function of the industry’s structure [2, 5]. Economic performance is measured in terms of welfare maximization, i.e., resources employed where they yield the highest valued output. Conduct refers to the activities of industry’s buyers and sellers. Sellers’ activities include installations and utilizations of capacity, promotional and pricing policies, research and development and inter-firm competition or co-operation. Industry structure includes variables such as the number and size of buyers and sellers, technology, the degree of product differentiation, the extent of vertical integration, and the lever of barriers to entry.

The relationship between industry structure and performance is derived from the microeconomic model of perfectly competitive markets [28]. As this is a static model, competition is viewed in terms of an equilibrium condition. In long run equilibrium, perfectly competitive markets will result in the optimal allocation of resources in an economy. Industry’s structure includes several elements like buyers and or seller concentration, product differentiation, and the elasticity of demand for the product. These elements have obvious effects on structure of the industry. One of the elements of structure, later popularized by Bain, was entry and exit barriers. These barriers are [1] economies of scale, [2] absolute cost advantages, [3] product differentiation and [4] capital requirements. The SCP paradigm implies that the structural characteristics of an industry, particularly the level of concentration of firms and the height of entry barriers, have a significant influence on the ability of firms within an industry to price above the competitive price. Consequently, these structural characteristics are expected to determine the performance potentials of individual firms.

SCP paradigm has been tested in the banking industry to look at market structure and competition in banking. Market structure based on the traditional model is measured by looking at concentration. Market concentration can be measured in a number of ways. The most straightforward method is to calculate what share of the industry’s output is sold by a few firms. This top k-firm concentration ratio [CRk] is used by the Korean government to determine the degree of anti-competition of a proposed merger. Literature has shown the limitations of SCP paradigm and the strongest critic has been the contestability theory. The contestability theory suggests that a concentrated banking industry can behave competitively if the hurdles for entry and exit are low. This theory asserts that the threat of potential entry forces banks with large market shares to price their products competitively under conditions like contestable markets. A contestable market has no entry barriers, either economic or legal. If the proponents of the contestability theory are correct, widely expressed concerns about the domination of a country’s financial system by some type of financial intermediaries may be valid only to the extent that financial markets are not contestable [30].

Bresnahan [11] and Lau [42] estimate the mark-up of price over marginal cost as a measure of market power. This model is based on two structural equations, an inverse demand equation and a supply equation derived from the first order condition of profit maximization. Shaffer [36] rejected the collusive conduct hypothesis with a sample of US banks. Shaffer [37] found that the Canadian banks were competitive for the period 1965–1989 even with a relatively concentrated market. Berg and Kim [3] show that Cournot behavior is rejected in the Norwegian banking system. Fuentes and Sartre [18] find that banks consolidation in Spain did not weaken the competition level. Gruben and McComb [20] found that Mexican banks, before 1995, marginal prices were set below marginal costs and concluded that the Mexican market is super-competitive.

Panzar and Rosse [31] explained that the sum of the elasticities of a firm’s revenue with respect to the firm’s input prices [PRH-statistic] can be used to identify the extent of competition in a market. Under perfect competition, the PRH statistic should be equal to one, since any increase in input prices should lead to a one-to-one increase in total revenues. This is true because those firms that cannot cover the increase in input prices will be forced to exit the market. By contrast, the PRH-statistic will be zero or negative if the firm operates as a monopoly—an upward shift in the marginal cost curve will be associated with no change or a reduction in revenue as a result of the optimality condition for the monopolist. If the banking sector is characterized by monopolistic competition, the PRH-statistic will lie between zero and one.

The Lerner Index measures the mark-up banks charge their customers by calculating the difference between price and marginal costs, expressed as a percentage of the price. Higher values of the Lerner Index imply lower levels of bank competition. Fernández, et al [17] estimate Lerner Index for the 1990s and find that market power in major European countries has apparently not declined despite a 3 series of market liberating measures. Maudos and Guevara [26] use Lerner Index to determine the social welfare loss attributable to market power.

III. CRITICAL REVIEW OF EMPIRICAL MEASURES OF COMPETITION

As discussed above, many methods have been developed to measure competition. It is important to look at the advantages and disadvantages of the methods discussed above. In case of SCP concentration is used as a measure of competition but it has limitations and has been criticized severely. Structural models like B-L model it is necessary to correctly specify all the structural equations and the measure of competition in the model is not identified in some specifications. The strength of structural model is that it actually provides a direct measure of market power, unlike other methods like PRH model and Hall’s model. Hall’s method requires fewer data series and is easier to estimate than the structural model. The measure of competition in Hall’s model is difficult to interpret unless one has additional information such as demand elasticities. Hall’s model is also based on the assumption of constant return to scale. PRH statistic uses a single equation, reduced form
suggesting that it may lead to an invalid measure of literature, especially the use of scaled revenue function requirements and it has been used in various modified forms. Some of the modified forms have been criticized in the literature, especially the use of scaled revenue function suggesting that it may lead to an invalid measure of competitive conduct. Berger et al [4] reviews the literature on concentration and competition extensively giving an overview most of the aspects touched by competition in banking domain. Authors say that researcher have moved on from using concentration as a measure of competition to empirical methods. Researchers have tried to assess competition in the developing world and more research is needed on the topic of competition in banking. The authors conclude by saying that more broader institutional framework for research needs to be developed to see the impact of competition in banking on economy of a country.

Hyde and Perloff [21] demonstrate the strengths and weaknesses of Panzar-Rosse, Hall and structural approaches for measuring competition using stimulation experiments. This paper demonstrates that the Hall results are very sensitive to deviations from constant return to scale and for decreasing returns to scale, it gives a consistent overestimates. For increasing return to scale, it leads to underestimates. Hence, it cannot estimate market power without additional information. Structural models gave consistently good results with random errors which were higher than that observed in manufacturing experiments. The use of a more flexible functional form, such as the Translog, substantially reduces the ability to determine non-competitive market structures due to loss of efficiency in estimation. The significant drawback of structural models according to the authors was that it would require extensive experimentation with specifications. Panzar Rosse model is the easiest method to use but stimulation experiments showed that it was not able to differentiate between collusion and competition.

Carbo et al [13] argued that PRH statistic when used with other direct measures of measurement like Lerner index and interest margins gives better information for analysis. Panzar-Rosse model is more accepted amongst the researchers and has been modified by researchers to overcome the short-comings of the model. However, there is no one perfect model. Thus, reliance on one model for a comprehensive assessment of competition will not give good results and thus combination of models should be used. Shaffer and Spierdijk [42] provide theoretical justification for cases where H is greater than 1. Some studies [10, 15] have found H-statistic to be greater than 1. Econometric problems like estimation uncertainty, model misspecification, and measurement errors might lead to H>1. However, the authors had tried to explain using mathematical derivations that H can be greater than 1 in case of standard oligopoly equilibrium if input prices vary in parallel across rival firms. Authors suggested that whenever it is possible to vary input prices idiosyncratically, reduced form revenue test must control for the input prices of all firms within an output market, not just each firm’s own input prices.

Goddard and Wilson [19] assesses competition using PRH statistic and argues that misspecification bias arises when there is partial, not instantaneous response to factor input price shocks and thus, there is a need for factoring for this misspecification bias. This necessitates the inclusion of lagged dependant variable. This paper also uses a Monte Carlo simulation to show that when FE estimation of a static revenue equation produces H statistic that is severely biased towards zero. Thus, this paper presents a strong case to factor for equilibrium condition by using lagged dependent revenue function.

This paper also reports an empirical comparison between the performance of the FE and dynamic panel estimators of the Rosse–Panzar H-statistic, based on income and balance sheet data for banks located in seven countries. The empirical results are consistent with the main conclusion of the simulations exercise, that the FE estimator of the H-statistic is severely biased towards zero.

IV. DEREGULATION, LIBERALIZATION, CONSOLIDATION AND COMPETITION

Policy changes have an impact on the competitive structure of banking system. During the last two decades there have been a lot of policy changes in the banking system which has impacted the competitive structure of banking studies and there have been many papers to capture the effects of these policy changes. These changes have been in both the developing world as well as the developed world but the competitive structure in some cases has reacted differently. Maudos and Solis [27] analyses the evolution of competition in the Mexican banking system in the period 1993-2005 which witnessed deregulation, liberalization and consolidation of the banking sector. Mexican government initiated economic liberalization to improve efficiency and competition in their banking system. The authors have applied PRH statistic and Lerner Index to assess competition in the Mexican banking system during the period 1993-2005. Authors argued that market power leads to social inefficiencies that translate into a loss of social welfare and thus a need to measure and improve competition in Mexican banking system while analyzing competition in the post-liberalized Mexican in banking sector. The authors used Lerner Index as it allows competition to be measured annually and also it allows market power to be measured separately for loans and deposits. The authors used log-linear regression of the revenue function with dependent variable being the interest revenues for the PRH statistic. The empirical evidence suggests monopolistic competition in Mexican banking system. By sub-periods, market power increased in deposits and decreased in loan markets. During the times of high inflation and interest rates, there was higher market power and thus lower competition. There was an increase in profitability in the later parts of the study and the author speculates it to be because of decrease in competition. However, the reforms implemented to improve legal framework, financial regulation and supervision processes had a positive impact on the economy. Even though reforms were aimed at improving competition, it was found that market power had increased, though, it may be attributed to other
factors like high inflation and a period of financial crises in the mid-1990s.

Zhao et al. [41] looks at the deregulation—prudential re-regulation framework which has been adopted in Indian banking sector and its impact on competition and performance. Authors argued that deregulation induced competition should lead to efficiency and better performance in banking industry. Re-regulation is aimed at stability and minimizing risk leads to higher costs and lowering of competition. Efficiency is analyzed using cost frontier approach and a partial adjustment model. For measuring competition an adjusted AR[1] model is used where persistence of profitability [POP] approach is used with reduced POP with increase in profit.

Burdisso and D’ Amato [12] analyzes the impact of restructuring process on competition and bank profitability. Argentinian banking market was opened to foreign banks and new prudential norms were set. As a result, there was consolidation in banking and concentration increased. This lead to question on competitive strengths of Argentine’s banking system. This paper analyses the relationship between profitability, competition and efficiency hypothesis for the 20 largest banks during the period 1996-1998. To measure the effects of concentration, authors construct concentration indices for each particular bank, in order to have a good measure of the degree of concentration they face in local markets. Market share indices are constructed following the same methodology. Those indices are included in a profit equation to determine the relevance of the SCP hypothesis and Market power respectively. Results suggest there is no evidence of market power in the retail banking sector and the effect of prudential regulations have been positive though it led to consolidation in the markets.

Carbo et al [13] explains that mergers on one hand brings economies of scale but on the other hand increases market power and hence may lead to welfare losses. Liberalization reduces concentration and hence may improve competition, reducing banks to control costs. Both these measures improve efficiency; this paper tries to analyze which is more effective. This study analyses Spain which had both a wave of mergers and deregulation between the periods 1986 to 1998. This paper found that deregulation yielded more social benefits as compared to mergers. Thus, policy makers should focus on deregulation for the benefit of the society. Authors use H statistic to measure competition pre and post merger competition and finds that competition has not changed significantly over the period 1986-1998.

Berg and Kim [3] state that retail banking differ from corporate banking in terms of concentration, the importance of information asymmetries and the extent of customer mobility. This paper considers banks as multi-output industry analyze banking concentration. Authors opined that customers cannot substitute retail loans for corporate loans or vice-versa whereas banks can and do divert funds from one market to other. As a result of these differences among customers, the degree of competition will differ, and the elasticity of demand as perceived by individual banks will be different in these markets. Banks are found to have substantial market in retail banking as retail customers do not have resources to search for best market offer. Banks are not able to press market power in corporate segment as corporate customers have the resources to find the best market offer. The mobility of customers in corporate banking is much higher as compared to retail customers.

V. COMPETITION AND ECONOMIC STABILITY

Vives [40] analyzes the trade-off between competition and stability looking at the recent financial crises and the overall reaction of policy regulators to the financial crises. Author says that liberalization has lead to overall increase in competition in financial intermediaries’ along with the increase in incidences of financial crises. When there is an increase in competition, it benefits stability to some extent but after reaching certain level, it increases risk taking activities and breaks the balance of risk-return trade off due to competitive pressures, making banks more vulnerable to failure. Thus, it is important to have prudent regulations and it is especially important in developing economies where reform measures are being initiated.

Carletti and Hartmann [14] examine the relationship between competition policies and policies to preserve stability in the banking sector. Bank mergers are either reviewed by supervising authorities whose aim is to look at stability or by competition authorities whose aim is to control market power. It was believed that high levels of competition may lead to instability because of higher risk taking by banks. However, the author says that there have been empirical studies which suggest that stronger competition does not necessarily worsen stability. Authors say that both theoretical and empirical literature suggest that the stability effects of changes in market structures and competition are extremely case-dependent. This paper looks at merger policies in various countries across the world.

Above literature show that policy measures are taken to alter the competitive structure in banking, but it may not always happen that the measures taken are successful or leads to requirement of further changes in policy. Liberalization of banking system is aimed at improving competition but is often followed by deregulation to improve stability. It is also seen that in many cases deregulation leads to increase in concentration but does not adversely affect competition. Mergers are regulated so that concentration is kept in control but by avoiding mergers, an opportunity of efficiency gains might be lost. Thus, competition is good for an economy, but research has also shown that very high competition may also impact transmission of monetary policy.

VI. IMPACT OF CONCENTRATION, MERGERS, ACQUISITIONS AND FOREIGN BANK ENTRY ON COMPETITION

Rezitis [33] assessed the impact of mergers and acquisitions on competition in the Greek banking industry. Mergers and acquisitions have affected competition in Greek banking system, rendering the banking system less competitive. Thus, the outcome and objective of mergers seems to be market power. According to S-C-P paradigm, when there is higher...
concentration, it leads to collusive behavior. This was criticized by economists Baumol arguing that if there are no entry and exit barriers, there can be higher levels of competition even with high concentration. Still, there have been studies using S-C-P paradigm and concluding higher competition for lower concentration. Claessens and Laeven [16], however, indicate that empirical evidence does not support the expected increasing monetonic relationship between market concentration and market power. According to Bikker [7], concentration indices are increasingly unreliable when the number of banks are less and tend to exaggerate the level of competition in small countries. The paper uses Hall-Roeger model along with PRH and Bresnahan Lau model to assess competition in banking sector. Hall-Roeger model is popular in manufacturing industry and has been used for the first time to measure competition in banking industry. Author gives an interesting insight by testing before and after merger situation and finds there is a decrease in competition. After the merger, there is an increase in concentration and if the competition reduces, it confirms to SCP paradigm which has been criticized. Thus, either SCP paradigm still holds or there are entry and exit barriers. Also, it suggests that the aim of mergers may have been profits through market power rather than efficiency, at least in the short run.

Lloyd-Williams and Molyneux [29] test both SCP paradigm and efficiency hypothesis with regard to market structure and performance in Spanish banking for the period 1986-1988. Policy measures to protect Spanish banking led to higher concentration in Spanish banking. If there is collusive behavior in Spanish banking, the policy measures would lead to further market power and if efficiency hypothesis holds, it would lead to more efficient banking. The paper uses annual and pooled data to test the hypothesis. The results suggest that there is collusion in the Spanish banking system and thus rejects efficiency hypothesis. Thus, the efforts of policy makers could lead to lowering of competition in Spanish banking system.

VII. COMPETITION IN THE DEVELOPING WORLD

Molyneux et al [29] assesses competition in the EU countries using Panzar Rosse H statistic over the period 1986-1989. Paper analyses concentration in EU countries and authors state that it is peculiar of developed world to have a handful of banks to control a significant part of banking market, but it may not necessarily impact competition. But EU countries do prefer to have large banks. Even the European Central Bank legislation has given free access to member countries; there was no change in market conduct during the period 1986-1989. The results indicate that banks in Germany, the United Kingdom, France and Spain earned revenues as if under conditions of monopolistic competition during the period. In the case of Italy, they were consistent with banks having earned revenues as if under monopoly or conjectural variations short-run oligopoly conditions. Authors suggest that there was lack of integration in EC banking markets in spite of the efforts to re-regulate them to this end in recent years.

Rozas [34] analyses competition in the Spanish Banking system using PRH statistic for the period 1986-2005. This paper uses weighted procedure to control for size and number of branches. The author gives a brief on the three NEIO based empirical models, ie, Bresnahan and Lau [11,42] and Panzar and Rosse [31]. The first models have been scarcely used due to their data intensiveness. The author says that previous studies have found that Spanish banking system have monopolistic competition and the contribution of this paper is its finding of increasing competition in the later periods of the study. Author notes the reason for taking banking as a two product business with deposits as intermediate product and thus allowing banks to be considered as a single product firm. H-statistic is estimated by dividing the time period into four equal parts and H-statistic value increases during the first three periods [0.55, 0.70 and 0.79] and then reduces significantly for the last period [0.55]. The increase in competition is associated with policy changes aimed at unifying the market for banking services. Author gives a noteworthy difference between competition and market power as they are used interchangeably. Market power is, basically, an individual phenomenon which results from the behavioral pricing strategy of a particular firm. By contrast, competition should be regarded as a collective phenomenon stemming from the aggregate interaction of the set of market participants. Thus, Lerner Index is a measure of market power rather than competition and PRH statistic is a measure of competition. The author argues that policy authorities use concentration to gauge and guide competition related policies but time has come to move on to better NEIO based methods.

Bikker and Groenweld [8] analyzed the competitive structure in the European Union as a whole and also as individual countries. This paper analyses the market condition in which the banks operate in the 15 EU banks for the period 1989-1996 to see whether market conditions have changed. Then this paper tries to see whether the banks operate in European markets or national markets by using a modified version of Panzar Rosse model. It also tries to analyze whether concentration impacts competition. Authors first determine the competitive structure of the entire European banking industry using an extended version of the Panzar-Rosse (PR) method. To take into account the possibility that the variables under consideration are in some way or another influenced by the institutional changes, they have incorporated a logistic time curve model in the original PR specification. The estimated H-statistics are used to investigate the relationship between competition and concentration. This enables to test whether either the SCP or contestability-efficiency hypothesis can be rejected or not. Competitive nature of banks changes gradually over time and is monopolistic in most countries. The process of deregulation and liberalization in European countries did not have a significant impact on competitive conditions. This study also suggests that banking systems in European countries are identical. There is negative correlation between concentration and competition, thus strengthening the conventional view that concentration impairs competition.
VIII. COMPETITION IN EMERGING ECONOMIES

Competition measures in the developing world have generally focused on the effects of policy changes. Many of the studies have applied PRH statistic for assessing competition. [1] tries to assess the level of competition in the Middle East and North African [MENA] countries using non structural or NEIO approaches like Lerner index and PRH statistic to assess competition. There are only three papers that conduct this kind of analysis for the MENA region. All three compute the PRH statistic as the measure of competition. Ariss [1] analyzed competition in 12 MENA economies during the period 2000-2006 and found monopolistic competition. The paper analyzed competition during 1994 to 2008 and also tested the competition in sub-periods to compare the competition in MENA with other regions of developing world. There is monopolistic competition in MENA and comparisons over time suggest that competition has not improved overall and it is lower as compared to other developing regions.

Majid and Sufian [24] analyze competition in Malaysian Islamic banking industry using PRH statistic. Malaysia has a dual banking system and is one of the first countries to have a full fledged Islamic banking system running side by side with traditional banking system. Market share of Islamic banking was around 11% at the time of study. HHI index has reduced from 1513 in 2000 to 1388 in 2006 indicating concentration has reduced.

Stavarek and Repkova [38] assesses competition in the Czech banking system using the PRH statistic during the period 2001-2009 and compares the competition in the two sub-periods 2001-2005 and 2005-2009 for a panel of 15 banks. Authors also test for equilibrium conditions and finds that the banking market is in equilibrium during most of the estimation period. There was monopolistic competition in the Czech banking during the full estimation period; it was close to perfect competition in the first sub-period and competition reduced after joining the EU in 2004.

A few studies have tried to look at competition and concentration in the Indian banking system. Bhattacharya and Das [6] find that there is a significant change in the levels of concentration in early 1990s and despite a spate of mergers in the late 1990s, the level of concentration did not change significantly. Varma and Saini [39] analyses the impact of bank size on the conduct of bank. Using conjectural variation model the study finds that the biggest banks charge the lowest mark-up, indicating the increase in bank size through consolidation may not have negative implications in terms of abuse of market power by big banks. Prasad and Saibal [32] analyses competition in the Indian banking sector using PRH statistic for the period 1996-2004 and two sub periods 1996-1999 and 2000-2004. Findings suggest monopolistic competition for the overall period and the two sub-periods with higher levels of competition in the second sub-period. Zhao et, al [41] looks at the deregulation – prudential re-regulation framework which has been adopted in Indian banking sector and its impact on competition and performance. Authors argued that deregulation induced competition should lead to efficiency and better performance in banking industry.

IX. CONCLUSION

This study has analyzed various literature related to competition in Banking. The literature on the assessment of competition can be divided into studies that take a structural (non-formal) approach and those that take a non-structural (formal) approach. The structural approach centers on the Structure-Conduct-Performance (SCP) paradigm. The SCP hypothesis assumes a causal relationship running from the structure of the market to the firm’s pricing behavior. Non-structural approach measure the degree of competitive behavior in the market through formal econometric models. PR model has been found to be the most popular method of assessment of competition. The competitive structure in banking in developed nations is found to be more competitive as compared to the developing nations. Literature outlines the impact of deregulation and prudential re-regulation on competition. The impact of various factors on competition has been analysed in many developed economies. Competition related studies are important for both the developed and the developing nations to formulate banking regulations and policies. Competition in banking as a research area have been bringing out quality research, however, the developing world lags behind the developed world which can have an impact on the policy by the regulators.
References


