

## **BANKING REFORMS AND COMPETITION: A COMPARATIVE STUDY OF PUBLIC AND PRIVATE BANKING INDUSTRY IN INDIA**

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### **1. Introduction**

Indian economy was liberalised in 1991 to free it from the shackles of a highly regulated and stringent policy framework, so that it becomes competitive and efficient for the purpose of national as well as international trade. Thus, a number of restrictions and regulations were uplifted and reforms were introduced in various important sectors of the economy amongst which banking sector was the major one. The recommendations of the Narasimham Committee Report-I governed the change in policy regime of Indian banking. As Indian banking industry was highly concentrated because of state ownership; the committee was of the view that the uncompetitive and inefficient banking sector of our economy would be better dealt by means of deregulation and opening up. Hence, it was for the first time after getting independence that the new private banks were allowed to enter the banking industry of India to unleash the competitive forces within existing banks. It is in this context that the proposed work is carried out to analyse competition ensued in Indian banking industry due to banking reforms in the light of rigorous and formal framework namely 'Structure-Conduct-Performance Paradigm'.

### **2. Rationale of the Study**

The intention of the Narasimham Committee was to liberalise the banking sector and basic framework was to move away from the public sector banking towards a broad based banking. For this purpose, the main instrument of liberalisation was opening up of the banking sector. Subsequent to liberalisation, there was no attempt to expend the public sector banks. Therefore, opening up or entry essentially meant the entry of private banks. There were few old private banks in existence and hence, entry of new private banks created three broad banking segments(domestic): the public sector banks, the old private banks and new private banks. Apart from opening up and entry of new private sector banks, the liberalisation meant deregulation of the interest rates in respect of deposits rates and lending rates and deregulation of some related markets like money markets where

instruments were allowed to free float and market forces were allowed to operate. Therefore, in various ways, the banking sector was deregulated, the implication of this was to be seen in form of better operational efficiency. Thus, most of the recommendations were related to the market economy but the structure of the banking industry was not seen as the market structure as is the case under the structure-conduct-performance approach. Therefore, Narasimham Committee actually did not envisage what would happen to competition in banking if at all the implications of liberalisation for competition were not spelt out very clearly. The only assumption was that with entry of new private sector banks; automatically there would be pressure on existing banks to improve and become competitive. Therefore, there was no wholistic view in the Narasimham Committee which viewed privatisation, liberalisation and deregulation as the proxies for competition. Furthermore, there was no clear cut understanding of how competition will emerge. But, it was felt that this would lead to a convergence between PSBs and private sector banks.

Therefore, in this thesis, we have adopted a more formal and rigorous framework which is structure-conduct-performance approach so that we can analyse the implications of the change in the policy regime with regard to the banking sector in a more structured manner. Thus, application of industrial organisation approach is considered to be the best tool to examine in what form the competition has emerged in the Indian banking industry. Is the competition between incumbents and new entrants or is the competition between public sector banks and private sector banks? To understand whether convergence is taking place in public banks and private banks also remains the thrust of this thesis. Another question which is important to understand whether the individual banks efficiency is the main source of competition or whether it is the market structure and consequent conduct which results in performance and the broad paradigm of structure-conduct-performance is the main source or idea behind the competition.

### **3. Theoretical Framework**

There are three approaches to the study of banking, that is, considering bank as a financial institution, from the point of view of financial management and monetary economics approach focusing on the relationship of central bank and a commercial bank. Present study is based on industrial organisation approach which lays down the foundation of the competitive industry. Industrial organisation approach has three strands: S-C-P paradigm, information theoretic approach and strategic groups. The present work is based on S-C-P paradigm and strategic groups have been incorporated in the realm of S-C-P. S-C-P was

pioneered by Mason and Bain (1939) according to which there are certain conditions which are given and hence are known as basic conditions. These basic conditions influence the structure of a market or industry; market structure impacts conduct and lastly, conduct influences performance. Thus, S-C-P is based on a logical chain of causal relationships in between structure, conduct and performance, in an order of sequence and single direction. There is no scope for feedbacks and jumps in this causal relationship.

However, this analysis is based on modified S-C-P developed by Murthy and Deb (2008) which is a better approach to understand firm dynamics and industry dynamics as compared to traditional S-C-P. In this approach, basic conditions impact conduct by passing structure, There is a new concept of entry facilitators as against entry barriers. Their approach incorporates strategic groups in conduct as opposed to structure as per traditional S-C-P. Also, they state that competition is the overall state that influences structure, conduct and performance. These are some of the most important contributions of modified S-C-P on the basis of which the present work is carried out.

Moreover, in this analysis, attempt has been made to contrast market power and efficiency by comparing various hypotheses under S-C-P paradigm namely, S-C-P/S-P hypothesis, ESH, MES hypothesis and HET hypothesis. S-P hypothesis assumes concentration leads to profitability and according to ESH “efficient structure hypothesis”; efficiency is the main cause of performance as efficiency leads to concentration and concentration yields profitability. On the other hand, MES (modified efficient structure) hypothesis states that both efficiency and market structure influence performance whereas HET (hybrid of ESH and traditional S-C-P) hypothesis assumes that concentration and efficiency both lead to profitability or performance.

Thereby, the theoretical framework adopted for the purpose of the present analysis entails modified S-C-P along with various hypotheses under S-C-P paradigm to measure and evaluate the impact of banking reforms in infusing competition in Indian banking.

#### **4. Objectives of the Study**

The broad objectives of the present study can be listed as follows:

- To study, measure and evaluate the influence of banking reforms on competition in Indian banking through public sector banks and private sector banks.
- To study competition in Indian banking through S-C-P approach.

- In light of the aforementioned broad objectives; following specific objectives have been drawn:
- To measure and evaluate the role of market structure in competition;
- To measure and evaluate the role of conduct in competition;
- To measure and evaluate the effect of performance in competition;
- To measure and evaluate competition and efficiency in Indian banking through various approaches under S-C-P paradigm;
- To analyse competition between public banks and private banks;
- To analyse competition between incumbents and new entrants;
- To study whether there is convergence between public banks and private banks;
- To analyse competition in Indian banking in terms of both profitability and liquidity;
- To analyse the impact of financial recession on Indian banking.

## 5. Hypotheses

Primary hypotheses made for the purpose of the present study are:

- Banking reforms do not impact competition in Indian banking
- S-C-P does not explain competition in Indian Banking

Selected secondary hypotheses are listed as follows:

- Structure does not impact competition;
- Conduct does not impact competition;
- Performance has not improved in Indian banking;
- None of the approaches under S-C-P paradigm explain competition in Indian banking completely;
- There is no competition between public banks and private banks;
- There is no competition between incumbents and new entrants;
- There is no convergence between public banks and private banks;
- There is no competition in Indian banking in terms of both profitability and liquidity and;
- There is no impact of financial recession on Indian banking.

## **6. Data and Methodology**

The study relates to the period from year end 1995-1996 to year end 2009-2010 only. The data is collected from data sources published by RBI specifically from Statistical Tables Related To Banks. construction of panel data involves sample of twenty seven public sector banks including twenty nationalised banks and seven banks of SBI and its associates in all and nineteen private sector banks including fourteen old private banks and five new private banks spread over fifteen years. The precise elements in the methodology of the study are mentioned as under.

- Identification of variables belonging to structure, conduct and performance categories.
- Modification of S-C-P paradigm by making basic conditions a variable and through incorporation of strategic groups in basic conditions.
- Use of graphs, descriptive statistics, trend equations and semi-log equations for the purpose of preliminary data analysis.
- Determining the factors that explain competition in the market through Herfindahl Concentration Ratio.
- Comparing and analysing four banking segments in terms of selected variables as per S-C-P with the help of fixed effects panel model (LSDV model).
- Use of double log equations to discern the impact of advertisement expenses on total market and total income.
- Use of Bodenhorn's measure of rivalry to check degree of competition as regards to both profitability and liquidity in public sector banks, private sector banks and entire Indian banking industry.
- Use of time dummy in overall growth equations, test of difference between two means(t-test)and ratio of variances to analyse impact of financial recession on four banking segments.
- Forming two staged double log simultaneous equation model using both fixed effects panel model and random effects model for the purpose of explaining competition in Indian banking.

## 7. Major Findings

The following points highlight the major findings of the study.

- Market concentration is increasing for NPBs while the same is declining for PSBs.
- Relative market share is improving for PSBs but the same is declining for NPBs.
- Advertisement is effective in raising total market and total income for NPBs.
- Fee based activities play no role in competition.
- No improvement in term deposits for incumbents.
- Demand deposits of NPBs are steadily rising while term deposits are waning.
- No banking segment has reached the norm of 40% with respect to priority sector advances yet NPBs have improved tremendously.
- Decrease in liquid assets and increase in non-liquid assets in general.
- OFAs (technology) are being widely used by all the banking segments.
- Interest earned, interest expended and absolute spread are rising at double pace for NPBs.
- Wage bill of all the banking segments is sufficiently reduced.
- Operating expenses are rising for private banks but constant for PSBs.
- Operating efficiency is increasing for incumbents but decreasing for NPBs still enjoying highest operating efficiency.
- Incumbents have tremendously improved in terms of NPAs and CAR.
- Operating and net profits are rising for NPBs at double pace.
- Spread has significantly fallen for PSBs but volatility is also reduced.
- Competition in private banks as regards to both profitability and liquidity is much lesser than entire banking industry and PSBs.
- No impact of financial recession.

Thus, most of the aforesaid findings provide strong indication of convergence taking place between incumbents and new banks especially PSBs and NPBs that is shown by findings as regards to market concentration, relative market share, other income, priority sector advances, liquid assets and non-liquid assets, other fixed assets (technology), wage bill, operating expenses, operating efficiency, NPAs and CAR. Thereby, through major findings, we have been able to verify one of the hypotheses that convergence is taking place between incumbents and new banks as against public banks and private banks in general.

## **8. Analytical Conclusions About Competition**

- Indian banking is not a contestable market because of freedom to entry but barrier to exit with respect to sunk cost in terms of new technology and entry load of 200 crores
- Basic conditions in form of technology (OFAs) impact conduct bypassing structure. This acknowledges the jump effect not found in traditional S-C-P.
- Technology(OFAs) presents feedback effect as well as feed-forward effects, since it affects structure from conduct; and affects profit (performance) from conduct.
- Macro layer of S-C-P paradigm that reflects industry view is negated because both market share and concentration fail in directly influencing performance or net profits.
- ESH is also negated because it propounds that efficiency influence performance through structure, that is, market share and concentration.
- MES and HET given by Shepherd (1986) and Schmalensee (1987) respectively are also rejected as former claims the role of market share and efficiency while latter contends for the role of concentration and efficiency in influencing performance.
- The meso layer of S-C-P that is strategic groups view which incorporates conduct in between structure and performance through presence of strategic groups and basic conditions has been justified to an extent.
- The exogenous variable ‘year’ indicates the impact of factors other than structure and conduct variables on performance. It also has a significant and positive influence on net profits representing basic conditions. Thus, impact of banking reforms is measurable.
- The second exogenous variable technology (OFAs) has a significant impact on net profits other than operating efficiency and absolute spread which are endogenous variables. Therefore, it also challenges Schmalensee (1989) who claims that simultaneous equation modeling for S-C-P is not possible, since all variables are endogenous.
- Impact of conduct on structure as well as performance is established. Thus, “Efficient Conduct Hypothesis (ECH)” is evolved. The conduct impacts structure in form of asset management (NLAs), advertisement and other fixed assets. And

conduct influences performance in form of operating efficiency, absolute spread and OFAs.

- The modified S-C-P approach (Murthy and Deb, 2008) has been vindicated.
- It is clear that deregulation has led to competition but the expectations of Narasimham Committee were naïve because they amounted to S-P version of S-C-P (Macro view).
- But a main finding is that the vision of Narasimham Committee, that operating efficiency of private banks would lead to competition and convergence of public sector banks with NPBs has actually happened.

## **9. Contribution of the Study**

- In the present study, competition in Indian banking as a consequent to banking reforms has been analysed and measured through modified S-C-P (2008). Thereby, it has been acknowledged that most of the competition has emerged in form of incumbents vs. new banks rather than public banks vs. private banks. Moreover, as against existing literature, relationship between the elements of S-C-P namely structure, conduct and performance has been examined with the help of simultaneous equation modeling including exogenous variables.
- The present work has even gone beyond S-C-P and has entailed efficient structure hypothesis and MES and HET hypotheses to contrast between market power and efficiency in influencing performance and understanding competition in Indian banking. However, the most important contribution of the present study is the evolution of a new hypothesis “efficient conduct hypothesis (ECH)” under S-C-P paradigm, that supersedes the existing hypotheses, namely, ESH, MES, HET and S-P. Finally, this thesis evolves a synthesis of all the hypotheses including the new hypothesis, ECH. Also the present study identifies the source of efficiency in conduct that impacts performance is a very significant contribution of the present work.
- Feedbacks, feed-forwards and jump effects have been incorporated in the S-C-P approach. That, conduct influences structure and conduct influences performance has been established. That basic conditions impact conduct directly by passing structure has also been proved. Further, concept of entry facilitators has been empirically tested and role of basic conditions is also emphasised. As a result of

this analysis, operating efficiency has turned out to be the one of the most important conduct variables that influences performance, other than absolute spread and other fixed assets. Lastly, the concept of three layers of S-C-P has been specified and presented with the help of this study.

## **10. Conclusion**

To conclude, the foundation of the present thesis was laid out to analyse the impact of banking reforms in unleashing the competitive forces in Indian banking industry by contrasting public banking industry to private banking industry through the S-C-P approach. It was required because Narasimham Committee Report I, 1991 assumed that entry of new banks would automatically lead to enhance operating efficiency and would provide competitive edge to entire banking industry of India especially PSBs without mentioning clearly the nature and form of competition that was envisaged by the committee in the absence of any sound theoretical framework. Thus, to understand the implications of the change in the policy regime based upon deregulation and opening up, use of industrial organisation approach has been made in this thesis incorporating modified S-C-P and efficient structure hypothesis and its variants in the context of Indian banking industry. It has been observed that there is a shift in understanding of competition itself where we are moving away from traditional S-C-P and it is not structure but efficiency or better conduct that directly leads to performance, that is , it is efficiency instead of market power that explains competition in Indian banking industry. If this were not to be happened it would not have been possible for NPBs, which were small to begin with, to challenge the state monopoly banking segments such as SBI group. Moreover, banking reforms have remained successful in infusing competition in Indian banking industry but most of the competition has emerged in between incumbents and new entrants rather than between public banks and private banks. This has lead to a convergence between PSBs and NPBs, as well as incumbents and NPBs.

It is also noticed that Indian banking in general is moving towards anticipated income theory leaving behind shiftability theory. Convergence is also found in Indian banks as incumbents have improved in terms of NPAs, CAR and operating efficiency while new private banks have improved in terms of priority sector advances indicating the role of prudential norms and capital adequacy norms in improving Indian banking. However, New private banks have proved to be the most profitable banking segment but competition is lacking due to rising monopoly in relation to both liquidity and profitability in new entrants

which is not desirable. Moreover, in general, competition is more in terms of liquidity as compared to profitability indicating crunch of liquidity in entire banking industry is threatening.

Finally, The lesson derived from the entire thesis can be stated in one single sentence as “Operating efficiency and better conduct in terms of asset management, technology, advertisement and absolute spread are the keys to performance”.

And, in terms of policy, it can be said that entry of NPBs has galvanised competition in the entire banking industry both between new banks and incumbents, as well as, public and private banks. But, this is not, naively, due to concentration and market structure, but, on account of operational efficiency, through the newly developed efficient conduct hypothesis.