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Socio-Economic Implications from Indian 'Banking': An Empirical Appraisal Study

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1. Introduction

The 'bank' and hence 'banking' is one of the greatest inventions in human civilization that accelerates socio-economic growth through regular developmental process. 'Banking' in itself acts as a dynamic developmental instrument for the development. This banking process considers several reforms including recent implementations. It is well known that continuous reforms and their evaluations are necessary for developing countries where their people need regular and upgraded policy injections. In this spirit, reforms have several eye-catching stuffs from the bank-nationalization in 1969 to its recent liberalization, privatization, and globalization. There is no doubt that this service sector has been providing better quality of services. In tune with its social responsibility the banking sector is selected to provide best quality of services as ultimately, banking is for everyone in the society. This will be the added advantage to the banking system where its professional standard withstands.

Having with regional disparities in India, the 'social banking' should overcome the socio-economic inequalities (e.g. see Prasanna, 2010). In this situation, the implication of interrelationship between the corporate social performance (CSP) and corporate financial performance (CFP) has its own importance. Studies like Fauzi et al. (2010), Soana (2009), Dentchev (2004), McWilliams and Siegel (2000), Simpson and Kohers (2002), Waddock and Graves (1997), Cochran and Wood (1984), and Wright and Ferris (1997) focus on CSP-CFP linkage and their respective interrelations. Observation from these studies is that there is a mix of positive, neutral, and negative interrelationship between CSP and CFP depending upon the distinguishable variables those have been selected in respective studies. However, in the context of developing country like India, this interrelation is expected to be as positive with clear CSP-CFP directional relation. This in itself motivates for the present empirical study.

The next section presents review of literature. The successive sections are objective, methodology, data descriptions, empirical findings and discussions, conclusion.

2. Review of Literature

Out of several developmental approaches[1], Simon (1997) opines that '*Human development is the process of enhancing individual and collective quality of life in a manner that satisfies basic needs (as a minimum) is environmentally, socially, and economically sustainable and is empowering in the sense that the people concerned have a substantial degree of control (because total control may be unrealistic) over the process through access to the means of accumulating social power. Given its important qualitative and subjective context, this broad definition naturally defies easy quantification or cardinal measurement (p.185)'*. However, in reality it feels that this developmental approach is not realized for the society. In turn, this restricts developmental processes and hence restricts growth. Therefore, Simon (1997) favors the idea that development can be directed with the access of knowledge, resources, and social power by uniting understandings and actions. This will enrich with 'banking' and hence its relational economic development.

In this context, the interrelationship between CSP[2] and CFP with several 'social indicators' emerges. These social indicators are growth drivers for an economy in general and banking sector in particular. Therefore, the concept of 'social banking' is emerging here[3] and hence on CSP and CFP relation, Dentchev (2004) observes a mixed impression from the strategic implementation of CSP[4] on Belgian petrochemical companies. Using health, safety, and

[1] These are reconstruction and development, economic development, modernization, redistribution with growth, dependent development, independent development, meeting basic needs, top-down development, bottom-up development, another development, autochthonous development, autarchic development, agropolitan development, empowerment, post-development, anti-development, post-modern development etc.

[2] Friedman (1962) develops the concept of CSP.

[3] Social banking justifies the banking system that helps for economic development through the proper attention on the priority sectors of the economy without disturbing professional standard of this banking system (see Garg, 1994). In this context and relying on the Axia ethical agency method for Italian banking sector, Soana (2009) observes that there is the positive link between corporate governance and rate on asset earnings, employees and cost-income ratios, and international operations and market to book value as well as price to book value of firms. This observation may motivate for an expected positive link between corporate social performance (CSP) and corporate financial performance (CFP) through the positive inter-linkages among these accounting and market ratios. In turn, this shows that Italian banks are able to have proper attention on priority sectors of their economy as well as professional bank-financial-economic standards. Other studies on the relationship between CSP and CFP and hence social banking are presented with successive discussions.

[4] Strategic implementation includes centrality, specificity, pro-activity, voluntarism, and visibility. Under these strategies, organization benefits several outcomes like customer loyalty, future purchases, new products, new markets, and productivity gains.

environmental performance as proxy for CSP, Dentchev (2004) observes improvement and efficiency of the organization where cost saving and profit generation withstand. Improvement of stakeholders' relation, good corporate reputation as a signaling factor that provides information on corporate social decision-making activities, improvement in business models, and productive new ideas for the growth of organization are some of outcomes of the implementation of CSP. In other side of the implementation of CSP, study finds that it can consume resource and divert the managerial focus on development of the organization. Conflicts among managers and stakeholders may exist with the existence of insufficient knowledge. Transparency issues will sustain which may change the stakeholders' attitude. However, here the concept such as business should enhance social good and prevent social harm emerges out of this implementation of CSP, which also bears for a business strategy.

McWilliams and Siegel (2000) argues that trade-off between investment in corporate social responsibility (CSR) and firm's profitability can be evaluated efficiently through variables like intensity of research and development (R&D) and advertising investments. They argue that investment in CSR leads for product differentiation (quality) that helps to build intangible attributes like good corporate image considering social values. These social values can be informed through productive and meaningful advertisements. Together these marketing strategies enhance firm's earnings. Empirically they observe that R&D and CSP are positively correlated where CSR creates product as well as process innovations. However, there is a neutral effect of CSP on firm's profitability.

Waddock and Graves (1997) consider various assessments (i.e. regarding community relations, employee relations, performance with respect to environment, product characteristics and women & minorities) in their study using KLD's[5] CSP data on 469 US companies. Waddock and Graves (1997) observe that profitability and CSP are correlated having the effects of financial control variables (total asset, total sale, debt, and performance & levels of R&D). They observe that due to slack resource theory, financial performance determines CSP and due to good management theory, CSP determines financial performance. However, they still raise the future research question on this CSP-CFP positive relationship with different dimensions.

[5] Kinder, Lydenberg, Domini & Co. Inc., 129 Mt Auburn St, Cambridge, MA 02138, U.S.A. (cited in Waddock and Graves, 1997).

Simpson and Kohers (2002) observe CSP and CFP relation for US banking industry through its accounting measures like community reinvestment act rating (CRAR) with social performance measurements. This CRA rating is based on some of banking social assessments and it measures the social performances (CSP). In turn, this CSP along with other control variables like asset per branch, state personal income, population, cost of funds, capital ratio, loan ratio, earning assets, overhead expenses, and nonperforming assets, affects bank's financial performance i.e. returns on assets and loan losses to total loans. In this context, they favor the argument that firm's slack resources should be devoted to social performances with good management (theories of Waddock and Graves, 1997). This enhances the sustainable and profitable CSP-CFP relation. Empirically they observe that there is a positive relationship between CRA ratings and returns on assets as well as there is a negative relationship between CRA ratings and loan losses. This signifies for the positive effect of CSP on bank's financial performance. However, this study suffers from the limitation that it has considered accounting measures for financial performance measurement that may restrict to explain more for the economy.

It is observed that this limitation is moved out in the study of Cochran and Wood (1984) where market-based variables (e.g. returns index) are used to focus the CSP-CFP relation. Here this returns-index explains more on economy than earlier use of accounting measures. Applying OLS and logit model for 57 US SIC industries, Cochran and Wood (1984) find that there is the strong correlation between CFP (This is measured with operating earnings/sales, excess value, asset age, asset turnover etc.) and CSR (This is measured with returns index). Cochran and Wood (1984) observe that the particular financial variable (asset age) is strongly and significantly associated with corporate social responsible companies (from the above industries). In other words, assets with longer time-period (incurring depreciation cost) and higher ratio of net fixed assets to gross assets has lower CSR rating and vice versa. Therefore, the implication is that management should follow the socially responsible regulatory constraints for improvement of CSR. In turn, socially responsible and balanced economic development will be achieved.

In this context, Wright and Ferris (1997) observe that the noneconomic factors influence the managerial strategy than value enhancement goals. This is because, the negative returns that occurs from the divestment of South African business units on their firm value in the stock market. Therefore, social value worsens and social harm exists. It is also interesting to observe that developing country like Indonesia has different CSP-CFP relation comparing the studies of Waddock & Graves (1997) and Simpson & Kohers (2002). For example, Fauzi et al. (2010) observe that there is no mean difference between CSPs (Methods of rating companies like KLD, US and MJRA, Canada are followed) of the state owned companies (SOCs) and the private owned companies (POCs). They also find that there is no significant correlation between CSP and financial performances (return on assets, return on equity, and institutional ownership) of SOCs and POCs. This study shows that there is a directionless CSP-CFP relation in the context of developing countries. However, the positive CSP and CFP relation with required direction is expected to those developing countries, which are having regional disparities issues like India (e.g. see Prasanna, 2010). In this context, the following objective emerges.

3. Objective

Objective for this study is to assess the status of 'social banking' for the regional development in India particularly in the state of Karnataka.

4. Methodology

Understanding Antonelli (1986), the first phase of lin-lin and lin-log (semilog) econometric model specification is,

$$Y_t = a + b_1(trend) + \varepsilon_1$$

$$Y_t = a + b_2 \log(trend) + \varepsilon_2 \qquad (1)$$

for $Y_t = \frac{CDR_t}{INV_t - CDR_t}$,

where CDR_t = Actual adoption of total credit as a percentage of total deposit. INV_t = the ceiling $INV_t = CDR_t$ as percentage of district/state income velocity by the end of January-March, 2010,

observing volatile growth rate (both downside and upside) of CDR_t. Here, this ceiling INV_t is considered as the maximum level of innovation diffusion for the entire study period[6]. In addition, Prasanna (2010) observes that proportion of credit to deposit is equal to one or approaching to one in the financial year of 2006-07. These observations together imply that entire credit as 100% of total deposit has been exhausted in the economy. Here, the implication on this credit value as a 100% of deposit is the matter of concern. Therefore, the developmental questions like 'what the impact of the use of this credit as a percentage of deposit is in the economy' and 'what the implication of the use of this credit as a percentage of deposit is in the economy' arise. Here, total deposit and total credit can function alike saving and investment in the economy. These two are strong supporting pillars for the growth of district/state domestic product (district/state income) in relation to the total money supply (here broad money i.e. 'M_4'[7]). In other words, the diffusion of innovation (total credit as percentage of total deposit) shows the economic status of the economy given the income velocity. By the period of January-March, 2010, it is calculated that the state INV_t ceiling is 18.65% (This is varying from 8.00% in October 04, 2002 to 18.65% in January-March, 2010)[8]. Therefore, 'Y_t' is calculated as CDR_t% divided by 18.65% (CDR_t as maximum percentage of district/state income velocity) - CDR_t%.

This Equation (1) explains the patterns of diffusion of innovations, which have been adopted in the economy considering the activities of its specific banking sector. In Equation (1) lin-lin models are compared with lin-log models indicating various types of economic and financial diffusion of innovations which have been promoting the economic growth over a

[6] The January-March, 2009-10 is considered based on the data availability on all groups of banks and their region-wise (the state of Karnataka and its districts) total credit and total deposit (*www.rbi.org.in*). Therefore, this quarter of the year 2010 is considered as the maximum innovation-level for this bank specific empirical study irrespective of its study periods. This is explained and discussed in successive sections.

[7] $M_4 = M_3$+ All deposits with post office savings banks (excluding National Savings Certificates), where $M_3 = M_1$+ Time deposits with the banking system = Net bank credit to the Government + Bank credit to the commercial sector + Net foreign assets of the banking sector + Government's currency liabilities to the public – Net non-monetary liabilities of the banking sector and M_1 = Currency with the public + Demand deposits with the banking system + 'Other' deposits with the Reserve Bank of India.

[8] For developed districts (top five developed districts are considered on the basis of their per capita net district incomes, Prasanna 2010) like Bangalore Urban, Dhakhin Kannada, Kodagu, Bellary, and Dharwad the individual INV_ts are 7.84%, 10.45%, 15.65%, 19.97%, and 18.94% respectively by the period of January–March, 2010. For underdeveloped districts (top five underdeveloped districts are considered on the basis of their per capita net district incomes, Prasanna 2010) like Bidar, Raichur, Mandya, Tumkur, and Gulbarga the individual INV_ts are 28.30%, 35.07%, 39.89%, 33.11%, and 40.72% respectively by the period of January-March, 2010. Therefore, accordingly 'Y_t's for these districts are calculated and considered.

specific time-period[9]. Here, two things are clarified. The first is based on the analysis of economic status of the diffusion lag i.e. the gap between the adoption and innovation of specific policy oriented banking strategies (some are from banks' R&D), products, technologies, trading with derivatives market etc. The second is based on the analysis of 'reaching at grass root levels' for banking innovations e.g. the concept of financial inclusion. Here, these models explain the growth patterns in the total life span of the adoption of innovations.

5. Data descriptions

As earlier explained that all banks related data are collected from the RBI website (*www.rbi.org.in*) considering particular region i.e. the state of Karnataka and its districts. The data concerning fortnight period i.e. October 04, 2002 to March 31, 2010 (205 fortnight time series observations for both the Karnataka state and its districts) is filtered as thirty-three average quarterly data observation set according to the need of the study.

6. Empirical findings and discussions

Considering the diffusion of innovation in Equation (1), Table (1) shows that slope coefficient for the state of Karnatak is -0.0118 and the average slop coefficient of underdeveloped regions of the state is with higher negative i.e. -0.5644. These signify that the state of Karnataka is still in the need of developmental and technological diffusion inputs. However, in the process of unbalanced development developed regions are having good status with lower negative average slope coefficient i.e. -0.0004. In nutshell, these results explain that 1% change in 'time (one quarter of the year)' leads for negative change (by -0.01) in 'Y_t' or the diffusion of innovation (here total credit as percentage of total deposit). In fact, this is a serious economic hurdle for any kind of developing state territories or country as a whole. Therefore, the 'diffusion lag' still exists and 'financial inclusion' concept does not hold in strict sense at the grass root level. However, bureau of the Economic Times (2011) is arguing that now deposit

[9] It is estimated that the Karnataka state specific error term for the model $Y_t = a + b_2 \log(trend) + \varepsilon_2$ in Equation (1) is stationary (estimated 'τ' value is greater than the DF critical value), where estimated coefficient of its one lag term as independent variable for the dependent first differenced error term is negative at 0.01 level (Augmented Dickey - Fuller test). In case of error correction model the long-run cointegration relationship between 'Y_t' and '*log(trend)*' holds good (the estimated coefficient of one-lag error term as independent variable is negative) for both the state (Karnataka) and its districts model specifications. Therefore, this diffusion model type ($Y_t = a + b_2 \log(trend) + \varepsilon_2$) is considered in this study.

growth is necessary to upset '*the increase in credit growth that has essentially come from the banking sector' exposure to infrastructure sector as well as on the back of rising commodity prices, which has pushed up the working capital demand of companies*'.

Table 1. Type-two diffusion model for Karnataka and its districts

Diffusion Model: $Y_t = a + b_2 \log(trend) + \varepsilon_2$		
Regions	**Constant ($\hat{a}$)**	**Slope ($\hat{b}_2$)**
State		
Karnataka	-0.4266	-0.0118
Developed Regions		
Bangalore Urban	0.0067	-0.0023
Dhakhin Kannada	0.0121	-0.0035
Kodagu	-0.0387	0.0135
Bellary	0.0115	-0.0022
Dharwad	0.0249	-0.0075
Average	**0.0033**	**-0.0004**
Underdeveloped Regions		
Bidar	0.1633	-0.0549
Raichur	0.1658	-0.0704
Mandya	0.2373	-0.1018
Tumkur	0.0763	-0.0231
Gulbarga	7.7048	-2.5717
Average	**1.6695**	**-0.5644**

Note: Depending upon fortnight data availability the estimation considers time period from October 04, 2002 to March 31, 2010. It is estimated that the Karnataka state specific error term for the model $Y_t = a + b_2 \log(trend) + \varepsilon_2$ is stationary (estimated 'τ' value is greater than the DF critical value), where estimated coefficient of its one lag term as independent variable for the dependent first differenced error term is negative at 0.01 level (Augmented Dickey - Fuller test). In case of error correction model the long-run cointegration relationship between 'Y_t' and '*log(trend)*' holds good (the estimated coefficient of one-lag error term as independent variable is negative) for both the state (Karnataka) and its districts model specifications. Therefore, this diffusion model type ($Y_t = a + b_2 \log(trend) + \varepsilon_2$) is considered in the analysis.

Conclusion

From these analysis it seems, the development oriented CSP and CFP relationship has its own importance as far as the 'social banking (credit, deposit etc.)' is concerned. This is because, the corporate social performances of companies or banking business units aims for reaching at grass root levels on their policies or objectives. In this direction, this relationship helps the society as being good and wealthy. However, in the corporate environment is this feasible or realizable? If yes/no, then how far is it and at what extent is it? More importantly why is it so? These questions can be explored in futures research.

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