CHAPTER VI

BANKING AND NBFCs IN KERALA

6.1 Introduction

Do NBFCs compete with banks? If yes, on which things or areas these intermediaries compete? There is enormous literature that establishes the expansionary role of non banks in economy. But the competitive performance of these intermediaries in relation to banks is a neglected area. The importance of non banking financial intermediaries at different regions varies according to the changes in stages of development, institutional framework and time. In Indian context, these mediators *played* a good role in providing variant financial services even within the purview of tightened and dynamic supervision of monetary authority. Traditional business practices of banks, related with deposit acceptance and advances, in this sense, do not affect the performance of NBFCs. If it affects, it means that these NBFCs cater the same people and same needs that were normally catered by banks.

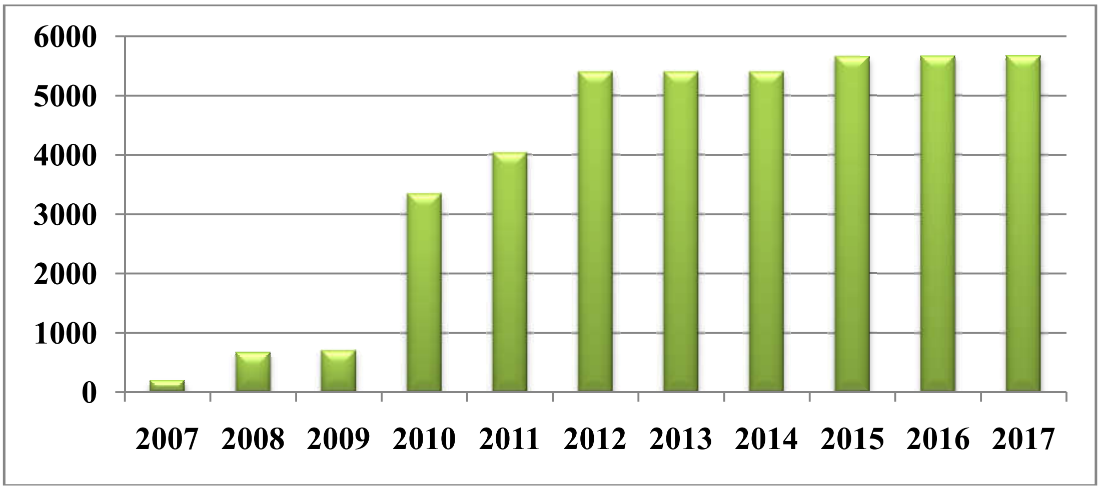
Kerala has a good deal of financial service providers. An efficient financial intermediary ensures the provision of credit overcoming the limitations of place and time. All financial service providers must make the credit more mobile - from surplus generating units to deficit generating units. Southern districts in Kerala have a well tradition to accumulate and capitalise the savings. Major

Non Deposit Taking Systemically Important Non Banking Finance Companies (NBFCs-ND-SIs) in Kerala, thus concentrate on this region. Central Kerala offers a hub for trading activities. Here also we can see such a type of concentration of NBFCs. The establishment and development of NBFCs-ND-SI is entertained in our economy on grounds of the fruits it offers- promotion of a corporate structure for finance, the capitalisation of idle savings through it and an efficient and competitive mediation. Thus, in this sense, there must be an apparent increase in the number of such NBFCs. In addition, there must be a large amount of capital accumulation in these ventures roughly in proportionate with the aggregate credit needs of the local economy. Last but not the least, there must be a competent and efficient intermediation process. As at 31 August 2017, there are only eight NBFCs-ND-SI in Kerala registered with RBI. The number of NBFCs-ND-SI did not show a significant increase for many years. Figure 6.1 shows combined share capital of two major NBFCs-ND-SI in Kerala. During the post crises period, two major NBFCs in Kerala have been transformed as not taking deposits. It brought in a significant hike in the volume of share capital of these NBFCs. But a significant infusion of capital has not been taken place in the succeeding years. This means that, there are some comparative advantages available to these NBFCs which make them monopolies. Potential savers are not able to have a fresh ownership in such intermediaries as envisaged by policy framework.

Figure 6.1

Combined Share Capital of Select NBFCs-ND-SI in Kerala

(Rs in Million)



Source: Annual Report of two major NBFCs-ND-SI in Kerala for various years.
Note: Figures as at 31 March

The lack of fresh ownership is not due to the lack of fresh assets but due to the presence of high leverage. In terms of competency, it is good to ensure an intra industry competition among financial intermediaries. Thus competition among NBFCs, at a larger scale, shall be justifiable. It will, generally, tend to evolve an efficient intermediation cost. Inter industry competition may affect the long term sustainability of each industry which was defined by the policy framework. Fundamental difference between banks and NBFCs lies in the criteria whether the agency is doing pure banking activity or not. From this point of view, NBFCs are not allowed to accept demand deposit. Thus, technically, both differ in their market targets and service provision. Banks, it is assumed that, must concentrate on fundamental bank functions which are a pre requisite for the efficient functioning of the economy. Banks have also to play a good role as a part of the economy. Thus banks and NBFCs are complementary to each other. The meagre increase in the share capital of NBFCs-ND-SI in Kerala certainly shows a decline in the elaborate participation of savers and it results in the generation of monopolistic situation. Non banking business in Kerala prospers primarily with the use of debt and reserve funds.

The core aspect of previous chapter was financial performance of NBFCs-ND-SI in Kerala. Financial sustainability of such NBFCs was explained by the growth in the advances to weaker sections by commercial banks, leverage of NBFCs and growth in the number of bank branches. This chapter intends to examine the contributions made by banking sector towards the NBFCs-ND-SI in Kerala. The relationship between income of NBFCs-ND-SI and banks' deposit gathering, credit disbursement and regional concentration is analysed in this chapter.

6.2 Literature

As far as the role of a good financial intermediary is to satisfy the portfolio preferences of both the borrowers and lenders, any autonomous increase in such intermediation in the economy can be expected to be an expansionary influence (Tobin & Brainard, 1963). The worthiness of banking institutions is celebrated due to its crucial involvement in every step of the credit intermediation chain (Cetorelli, Mandel, & Mollineaux, 2012). But banks with enormous resources, especially in the niche of a branch banking system, may lack in an inexpensive access to required information. In rural areas, non banks may be equipped with this kind of information but not have sufficient resources.

Chaves & Vega (1993) suggest the design of locally-operated financial institutions, as in the case of Indonesia, as a solution to this paradox. Rural and community bank (RCB) actuated institutional credit for farm and nonfarm activities in Ghana (Nair & Fissha, 2010). In some circumstances, banks are compelled to curtail rural credit through a cut in the number of rural branches. In most cases the cut is initiated in order to minimize costs and improve profits. But, empirical evidence shows that, proximity of the bank is not a significant determining variable in rural bank use (Okorie, 1992). In the late 1990's, in Sub Saharan African countries, a number of non-traditional financial institutions have been emerged to fill the gap created by the mainstream banks. Survey carried out by Kibaara (2006) revealed that provision of agricultural credit is skewed toward the *productive region* and is mainly provided by the commodity based credit providers and co-operatives. Micro credit and cooperatives contributed largely towards the eradication of poverty trap and agricultural productivity in Bangladesh and Ethiopia (Tenaw & Islam, 2009). So, the provision of credit is a function of cost, profit of the mediator and productivity of regions. Non banks may have some additional skill in controlling costs and thereby gain in profits lest the external draw backs at rural region. In India, these intermediators have more administrative economy than that of commercial banks. Self sustainability considerations urge these intermediaries to take measures in reducing the risk per rupee of lending. There is government control on the functioning of NBFCs in India related with operations, investment regulations and supervision. These three things- administrative economy and expertise, reduction of risk per rupee and governmental guarantees- are mattered for an *efficient financial intermediation* (Tobin & Brainard, 1963). Since NBFCs in India posses these basic qualities, the presence and elaborate functioning of such intermediaries are justified. Nationally, the share of informal finance in rural household debt has increased at the beginning of the 21st century (Jones, Williams, & Thorat, 2007).

So far as the NBFCs depend on the banks for credit, and the volume of the credit of banks has a bearing on the business of NBFCs, there will be some relationship with the banking practices and business of such NBFCs. This chapter intends to analyze such relationship. Andersen & Tarp (2003) questionned the ability of financial development, increased formal financial sector intermediation in a deregulated environment, to act as 'engine of growth' in the development process. In Indian context, the financial liberalisation contributed towards such a deregulation especially in banking sector. The financial liberalisation paved the way for opening up of large number of bank branches. Expansion of branches is explainable by the amount of deposits. But empirical study by Meyer, Khalily, & Hushak, (1990) shows that, the expansion of bank branches is largely explained by permanent income and inflation. Banks and non banks collectively offer a large access to financial services in India. Access to financial services enables households to invest in activities that are likely to contribute to higher future income and, therefore, to growth (Ellis, Lemma, & Rud, 2010). Thus functioning of banks and non banks act on each other's performance.

The presence of non bank intermediaries does not mean that monetary control through commercial banks is an empty gesture (Tobin & Brainard, 1963). The authors' treatment was a theoretical one and at a high level of abstraction. The method set up models of general equilibrium in financial and capital markets and the effects of monetary controls and of structural changes were traced. Apart from the ever growing population's effect, financial intermediaries, by conviction, cater to the same amount of people and their needs. Since 1950s, with the support of donor agencies, many developing nations tried to encourage agricultural modernization and growth by channelizing large sums of money to state owned credit institutions for on-lending at below-market interest rates to farmers. According to Yaron & Benjamin (1997), that narrow approach, to increase income and reduce poverty, was a failure. They recommended a broader approach emphsizing policy and legal reforms and savings mobilizations. Because it has stifled the development of rural financial markets and benefited only a small percentage of the rural population. Price stability risks from the significant increase in monetary growth in euro area reflect to a large extent the deposit holdings of other financial intermediaries (Moutot, 2007). The author recommended a deeper understanding of the reasons why Other Financial Intermediaries (OFIs) hold liquid deposits and the implications of this behavior. The situation, in any way, does not match with that of India. A detailed analysis made by Moutot (2007) that built on descriptive statistical techniques revealed that OFIs constitute a very heterogeneous group of institutions, with investment funds being the main money holders among the OFI sub-sectors. Further, the empirical analysis, which was founded prior to economic crisis (2007-08), seriously pointed towards the abnormal performance of *shadow banks*. In history, many economic crises were the result of financial crisis on account of failure of financial intermediaries. Although the stringency was very much felt in U.S, the remaining nations took serious measures concerning the management and regulation of private non bank intermediaries.

There is an inelastic relationship between bank credit and industrial output in the long run (Olokoyo, Adetiloye, & Ikpefan, 2016). By reducing transaction costs, innovative and cost efficient financial intermediaries spur the rate of financial development and thus lead to economic growth (Swamy & Tulasimala, 2011). The efficiency of financial intermediaries contributed much towards growth. Better functioning financial systems improve resource allocation and have a positive impact on long-run economic growth (Giordano & Guagliano, 2014). Indian rural bank branch expansion program (between 1977 and 1990) significantly lowered rural poverty and increased non-agricultural output (Burgess & Pande, 2005). The authors captured the stock of banks opened since the inception of the social banking experiment following bank nationalisation in 1969. Opening in unbanked locations was a proxy for branch expansion into poorer, rural areas which have had limited access to formal finance. Opening in banked locations was proxy for opening in richer semi-urban and metropolitan areas where there have been at least some contacts with institutions of formal finance. Recent innovations, particularly related with information and technology, might have reduced banks' reliance on branches. But the number of bank branches in U.S has continued to increase steadily over time. Hirtle (2005) assessed the implications of the developments by examining a series of simple branch performance measures. There was no systematic relationship between branch network size and overall institutional profitability. Performance of NBFIs is influenced by their risk taking incentives, size, capital ratio, real interest rates as well as the macroeconomic conditions prevailing in the country (Sakyi, Ofoeda, Coleman, & Abor, 2014). The authors ran a panel data analysis of 42 NBFIs of Ghana over the period of 2006-2010.

The degree of competition varies across markets. This is largely driven by barriers to entry and exit. Claessens (2009) argues for updated competition policies and institutional arrangements in financial services industries. Besanko & Thakor (1992) found that a relaxation of entry barriers into banking improves the welfare of borrowers and savers. This would be at the expense of bank stockholders. Competitive banking results in a fall in loan interest rate and a rise in equilibrium deposit rate. In this sense, it seems that better regulations in terms of competition of financial intermediaries breed welfare. But Allen & Gale (2004) declined this by pointing its (regulation) multifaceted effect on financial stability. Danger of excessive competition and of excessive market power were presented by Insead (2001). Indian banking system (1996-2004) operated under competitive conditions and earns revenues as if under monopolistic competition (Prasad & Ghosh, 2005).

The pertinent literature, thus, evaluate the efficiency of different types of financial intermediaries in terms of efficiency. It elaborately describes the functional calibre of mediators. Majority of the readings touch the expansionary power of financial intermediaries, sustainable practices, output and productivity. In all these frameworks, banks and non banking financial institutions play a good role. The literature is handicapped with the scrutiny of complementary or competitive role of NBFCs in relation with banks. Table 6.1 shows major variables of financial services access.

Table 6.1

Financial Services Access: Major Variables

Name of Variable	**Explanation**
Deposits per Branch	Total domestic deposits held by each organization divided by the total number of branches
Small Business Loans per Branch	Total small business loans per branch, where small business loans are defined as loans to commercial and industrial borrowers
Log number of banks opened in unbanked locations since 1970, per sqkm	Data for sixteen main states including Kerala and for the period 1970-1992
Log number of banks opened in banked locations since 1970, per sqkm	Data for sixteen main states including Kerala and for the period 1970-1992

Source: Hirtle (2005) and Burgess & Pande (2005).

6.3 Model

Non deposit taking and systemically important NBFCs are expected to focus on catering financial services to rural and semi urban areas. Although these intermediaries technically excluded from the list of deposit taking NBFCs, in practice, these NBFCs chiefly depends on ‘deposit like funds’. Secured Non Convertible Debentures (NCDs), borrowings from banks, commercial paper and subordinate bond are the major outside liabilities of these NBFCs. So, it is assumed that a change in deposit of banks would affect the financial structure of such NBFCs and thereby the total income. Total income includes the sum of operating income and other income. Other income constitutes the sum of fines and charges on lending. These other incomes are also a function of operating income. Rural lending by commercial banks has a bearing on the functioning of NBFCs. Thus total income of NBFCs-ND-SI is an explanation of rural deposit, semi-urban deposit and rural credit. Hirtle (2005) used simple regression analysis on a series of variables intended to capture the characterestics of the bank and the geographic markets in which it operates branches, as well as characterestics of the branch network itself. In this part, OLS Regression is commissioned using the data for a period of six years starting from 2011. Quarterly data from 2011-12 September to 2017-18 March were analysed. It provided 23 observations. In all the specified models, the dependent variable is the natural logarithm of total income of two NBFCs-ND-SI in Kerala. Data have been collected from the annual reports of NBFCs and from the publications and various reports of Reserve Bank of India (RBI).

Correlation coefficient with total income of NBFCs and population wise bank deposit and credit are; Rural Deposit -0.34, Semi Urban deposit 0.33, Urban deposit 0.32, Rural Credit -0.79, Semi Urban Credit 0.25, Urban Credit 0.47. Correlation between Rural Credit and Rural Deposit is 0.28, Urban Credit and Urban Deposit is 0.96 and Semi Urban Credit and Semi Urban Deposit are 0.99. Rural deposit and rural credit are not correlated. Thus rural bank branches advance more or less than they acquired as deposit. The surplus or deficit in rural advance would be an important variable determining the functions of NBFCs-ND-SI in Kerala and thus the total income of such NBFCs. After studying the prevailing literature and statistical considerations, Rural Bank Deposits, Semi Urban Bank Deposit and Rural Bank Credit are selected as independent variables. Thus, regression model is as follows;

$$lnTI_t=\alpha+lnRD_{t-1}+lnSUD_{t-1}+lnRC_{t-1}+\varepsilon$$

NBFCs concentrate on industrialized and developed regions. In Kerala, Ernakulam, Thiruvananthapuram and Thrissur are developed districts in terms of banking practices. These three districts account for a large percentage share of deposit and credit of banks in Kerala. In this context, the contribution of bank credit to these districts to total income of NBFCs-ND-SI is empirically analyzed. Related regression model is as follows;

$$lnTI_t=\alpha+lnTVPMCr_{t-1}+lnEKMCr_{t-1}+lnTCRCr_{t-1}+\varepsilon$$

Table 6.2 describe about the variables used in the model.

Table 6.2

Variables Used and Explanation

SL No	Name of Variable	Explanation
1	$lnTINBFC_t$(Dependent)	Natural Logarithm of total income of select NBFCs for current quarter
2	$lnRD_{t-1}$	Natural Logarithm of Rural Deposit in Scheduled Commercial Banks in Kerala for previous quarter
3	$lnSUD_{t-1}$	Natural Logarithm of Semi-Urban Deposit in Scheduled Commercial Banks in Kerala for previous quarter
4	$lnRC_{t-1}$	Natural Logarithm of Rural Credit by Scheduled Commercial Banks in Kerala for previous quarter
5	$lnTVPMC_{t-1}$	Natural Logarithm of credit provided by SCBs in Thiruvananthapuram district for previous quarter
6	$lnEKMC_{t-1}$	Natural Logarithm of credit provided by SCBs in Ernakulam district for previous quarter
7	$lnTCRC_{t-1}$	Natural Logarithm of credit provided by SCBs in Thrissur district for previous quarter

6.4 Results

There is a significant increase in the number of bank branches in semi urban areas in Kerala. Recent years witnessed a decrease in the number of rural bank branches. During the first quarter of 2016-17, there was a negative growth in rural deposit. The quarter was witnessed with a fall in the growth of national GDP. So the economic conditions reflected directly in the rural deposit trend. Comparing deposits, credits in Kerala is showing high volatility. This is to be seen as an inclination towards macro economic development. A stabilized directional movement in credit is seen in the case of semi urban branches. Ernakulam district stands first in the availability of bank branches. Northern districts have lesser number of bank branches. Thiruvananthapuram, Ernakulam and Thrissur are the major three districts which contribute to the total deposits in Kerala. These three districts constitute an average 48.06 percent of total deposit in Kerala for the studied period. Table 6.3 and 6.4 shows regression results.

Table 6.3

Regression Results: Banking on Total Income

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	14.5997	1.00817	14.4815	<0.00001	***
$\ln RD_{t-1}$	-0.332868	0.100983	-3.2963	0.00380	***
$\ln SUD_{t-1}$	0.230649	0.0679044	3.3967	0.00303	***
$\ln RC_{t-1}$	-0.378529	0.0720577	-5.2531	0.00005	***

Mean dependent var	9.829814	S.D. dependent var	0.128499
Sum squared resid	0.075133	S.E. of regression	0.062884
R-squared	0.793174	Adjusted R-squared	0.760518
F(3, 19)	24.28826	P-value(F)	1.03e-06
Log-likelihood	33.19036	Akaike criterion	-58.38073
Schwarz criterion	-53.83875	Hannan-Quinn	-57.23843
rho	-0.222821	Durbin-Watson	2.363382

Dependent Variable= Log Total Income of NBFCs for current quarter. Period: 2011-12Q3 to2017-18Q1 (23 Observations). Independent Variables;1. Log Rural Bank Deposit in Kerala for previous quarter. 2. Log Semi Urban Bank Deposit in Kerala for previous quarter. 3. Log Rural Bank Credit in Kerala for previous quarter.

Table 6.4

Regression Results: Bank Credit on Total Income

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	-0.705849	1.84405	-0.3828	0.70614	
$\ln TVPMCR_{t-1}$	-1.05569	0.211658	-4.9877	0.00008	***
$\ln EKMCR_{t-1}$	1.67198	0.353247	4.7332	0.00014	***
$\ln TCRCR_{t-1}$	0.150251	0.332975	0.4512	0.65693	

Mean dependent var	9.829814	S.D. dependent var	0.128499
Sum squared resid	0.111268	S.E. of regression	0.076526
R-squared	0.693701	Adjusted R-squared	0.645338
F(3, 19)	14.34361	P-value(F)	0.000040
Log-likelihood	28.67447	Akaike criterion	-49.34895
Schwarz criterion	-44.80697	Hannan-Quinn	-48.20665
rho	0.042005	Durbin-Watson	1.848604

Dependent Variable= Log Total Income of NBFCs in Kerala for current quarter. Independent Variables: 1. Log Bank Credit in Thiruvananthapuram for previous quarter. 2. Log Bank Credit in Ernakulam District for previous quarter. 3. Log Bank Credit in Thrissur District for previous quarter.

It is assumed that NBFCs cater unbanked sector in the economy (according to the complimentary role). Banks are, practically, not in a position to provide all financial services demanded by the community. Further, financial services demanded by each population group- rural, semi urban and urban- may vary. For example, in rural areas, there is good demand for used vehicles. Generally banks hesitate to provide loans for this purpose. The level of diversification in the financial requirements is different and dynamic among different population groups. Banks are, generally, not fully equipped to meet the seasonal stringency at rural and semi urban areas. In Kerala, two major systemically important NBFCs became non deposit taking after 2011. The peculiar characteristics urged the NBFCs to acquire a large quantum of funds from people in the form of debt. As part of it deposit like instruments were popularised among the savers of Kerala. It is recognised that the banking culture is very low among the people of north districts. Wayanad and Kazaragod have only meagre share of bank deposit with 0.65 and 1.65 percentages to total deposits in Kerala. The same situation can be seen in Idukki district with only a 1.13 percent to total. State average is 7.14 percent. Thus, districts which are depending on commercial crops have less bank deposit in Kerala. A paradoxical matter is visible when we look into the growth of bank deposits in the districts. The two districts with high deposits- Ernakulam and Thiruvananthapuram – show low growth in deposit. The growths in these two districts were 3.08 percent and 3.31 percent respectively. The whole districts have an average growth of 4.24 percent. Wayanad, with a

4.91 percent, is the district with high growth in bank deposit. There is not a recognizable growth in bank branches in Wayanad. This means that backward districts largely depend on traditional bank deposit for saving. There is a large accumulation of funds by various financial service providers at urban and developed regions. Bank deposit is a function of various factors namely, increase in disposable income, capital formation, employment etc. In this framework, the relation with the sourcing from and to the NBFCs is considered. Increase in consumption lead to a curtailment of bank deposit. But this is a short term phenomenon. The increased consumption leads to an increase in factor income (rent, wages, interest and profit) which again reasons an increase in the deposit. Today bank deposit is one of the competing elements of saving. There are various alternatives to save. Developments in computers and information technology helped to harness better opportunities of savings. The harness is being strengthened with better investment education.

More than half of the total bank credit is disbursed among three districts- Ernakulam with 27.91 percent, Thiruvananthapuram with 15.62 percent and Thrissur with 9.62 percent. Ernakulam and Thiruvanathapuram are industrially forward districts. Thrissur is an industrially backward district but is blessed with a lot of trading clusters. Northern district- Wayanad got only 1.28 percent of total credit and Idukki district is 2.14 percent.

Rural bank deposit, semi urban bank deposit and rural bank credit significantly affect the functioning of non deposit taking systemically important NBFCs in Kerala. Regression coefficients of these three variables are -0.33, 0.23 and -

0.38. Thus rural deposit and rural credit negatively affects the total income of NBFCs whereas semi urban deposit positively affects the total income of NBFCs. A one percent increase in rural deposit results in a 0.33 percent decrease in the total income of two major NBFCs in Kerala. R square value of the model shows that, independent variables are capable to explain the 79 percent variability in the total income of NBFCs.

This model describes the relation with the total income of NBFCs and bank credit at important districts. Bank credits to three highly banked districts (in terms of deposit and credit) in Kerala are the independent variables. Here, Credit to Thiruvanathapuram and Ernakulam significantly affects the income of NBFCs. Bank credit to Thiruvananthapuram is negatively affecting the total income of NBFCs. A one percent increase in the bank credit at Thiruvananthapuram district decrease 1.06 percent income of NBFCs. Likewise, a one percent increase in the bank credit at Ernakulam district increase 1.67 percent income of NBFCs. Bank credit to Thrissur district does not significantly affect the income of NBFCs.

Since the number of the explanatory variables is same for the dependent variable, the models are comparable. In this context first model explains a more founded relationship.

6.5 Major Findings

1. NBFCs-ND-SI in Kerala is benefitted with the financial development in semi urban areas. Semi urban savings are channelised to the NBFCs-

ND-SI. This may be in the form of working capital loan and or in the form of cash credit. Since leverage is an important positive determiner of total income of NBFCs, it can be generalised that *NBFCs* use semi urban bank deposit for high leveraging. This supports the findings of Acharya, Khandwala, & Oncu (2013). NBFCs represent a completeness of credit allocation in non-metropolitan areas of the Indian economy with less developed branch networks. This role has been potentially constrained by distortions in bank deposit base.

2. Rural bank deposit is showing an increasing tendency in recent years. There are various collectives and self-help groups in rural areas. The number of such initiatives significantly increased during the period. This seriously affected the source of NBFCs. The results reveal that rural unbanked sector is a major market of NBFCs in Kerala. However, mere growth of financial sector and an increment of number of people involved in financial transactions do not assure a sustainable access to finance (Chaulagain, 2015). Financial literacy is one of the important means to enhance the access to finance and its sustainability.
3. Performance of NBFCs is largely centered on the developments of highly banked districts in Kerala. NBFC is a good option next to banks in Thiruvanathapuram district. This is because, bank credit to the district negatively affect the functioning of NBFCs. On the contrary, bank credit to the highly banked and industrially forward district- Ernakulam positively affect the functioning of NBFCs. This means that, at

Ernakulam district- the district with a developed financial system- banks acts as a supporter of NBFCs' growth.

Generally, distribution of financial service, both by banks and non banks, is a function of value addition in a region. The region which adds more value to the aggregate production will demand an elaborated financial service network. A less CD ratio spells that there is relatively low value addition by units. Table 6.5 spells the CD ratio and state of value addition by various districts in Kerala.

Table 6.5

Ranking of Districts in Terms of CD Ratio and Value of Goods and Services Produced

District	**CD Ratio**	**Rank in terms of CD Ratio**	**Rank in terms of Value of Goods and Services Produced**	**Difference in Rank**	**Zone**
Wayanad	125.48	1	13	-12	North
Idukki	124.55	2	1	1	South
Ernakulam	89.98	3	2	1	South
Kasaragod	85.09	4	14	-10	North
Kozhikode	73.85	5	6	-1	North
Palakkad	67.82	6	5	1	North
Kollam	65.92	7	3	4	South
Thiruvananthapuram	64.77	8	7	1	South
Malappuram	62.54	9	10	-1	North
Thrissur	61.93	10	4	**6**	North
Kottayam	57.62	11	8	3	South
Kannur	55.27	12	11	1	North
Alappuzha	52.77	13	8	5	South
Pathanamthitta	28.42	14	12	2	South

Source: 1. Economic Review of Kerala, 2016
2. Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, RBI
https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications

Note: Rank in terms of value of goods and services produced are compiled from District wise details of total working SSI/MSME units Registered in Kerala up to Sep 2015. Rank in terms of CD ratio is an average, calculated from 2011-12 (March) up to 2016-17 (September).

Rank in terms of CD ratio of commercial banks must be equal or near to the ranks in terms of value of goods and services produced. Among the sample districts, Thrissur shows a high difference in ranks. The district is characterized with a good rank in value addition (4) and a bad rank in CD ratio (10). This district is showing the highest deficit of bank credit for value addition in the State. Bank credit in this district does not affect the earning of NBFCs-ND-SI. Thus it is understood that, *there are some people in the district who solely depends on NBFCs rather than banks*. These borrowers regularly approach NBFCs for their financial needs.

Northern districts- Wayanad, Kasaragod, Kozhikode and Malappuram have relatively low ranks in terms of value addition and good ranks in terms of CD ratio. This means that these districts are well catered by banks. Southern districts like Kollam, Kottayam and Alappuzha have good ranking in value addition but have with low CD ratios. These districts have very large branch network of NBFCs.

The results hardly violate the existing theories, even though there are exceptions. Generally, there is a highly significant elasticity of private savings with respect to real interest rate. The change in semi urban bank deposit would be a function of that real interest rate. Significant and positive relationship with the total income of NBFCs reminds us that, as far as the NBFCs depends on debt for their regular business activities then the semi urban bank deposit reflect the functional performance of NBFCs. People are ready to save in the debt instruments of these NBFCs. Here, total income of NBFCs is largely determined by the availability of private savings. Further, bank deposit is a major component of financial development. Private savings are positively and significantly affected by the components of financial development (Güngör, Çiftçioğlu, & Balcılar (2014); Bayar (2014)). Present results also agree with the finding of Ang (2011) who suggested that financial deepening and increased banking density tend to encourage private savings. Thus we can assure the existence of a competition between NBFCs and banks for acquiring the savings of the people. The validity of the finding is strengthened when we look into the effect of rural bank deposit and rural bank credit. These two aspects affect the total income of NBFCs negatively and significantly. In rural areas, NBFCs and banks possess comparative advantage of knowledge and resources respectively. So these two intermediaries compete for both savings and credit. In this context, NBFCs at rural areas truly act as *locally-operated financial institutions* as opined by Chaves & Vega (1993).

6.6 Suggestions

1. As NBFCs in Kerala operate on high leverage, it is necessary to develop effective measures to reduce it to the acceptable standard.
2. For NBFCs, rural Kerala will no longer be a good market since it is formalised by banks in a better way. Debt based fund management poses a serious problem to the NBFCs as they offer high returns to owners, resulting in huge cost of fund.
3. NBFCs must concentrate on backward regions in Kerala.

6.7 Conclusion

Banks and shadow banks (NBFCs-ND-SI) in kerala are competing for both rural deposit and credit. To dominate, shadow banks violate the fundamental aspects of financial intermediation. These NBFCs are not able to pool semi urban savings from kerala. The act of dependence of these NBFCs on banks for collecting semi urban deposits cannot be validated with this empirical analysis. The incapacity of rural bank branches to disburse large *number* of credit is strengthening shadow banks. The validity of result is strengthened with a positive effect of bank credit at the most urbanised district (Ernakulam) on the total income of NBFCs. Financial performance of NBFCs-ND-SI in Kerala, thus, largely explainable by the conventional banking practices. In the rural banking sector, NBFCs play a complementary role.

6.8 Limitations

Revolutionary changes were occurred in information technology during the period of the study. It brought in considerable deduction in the manual banking operations. This could save money, time and other resources. So the number of bank branches cannot be regarded as a perfect proxy for access to finance. However, in rural areas, large number of transactions is still made through the functioning of branches. Total income of NBFCs includes income from other states. But it is regressed with the variables associated with banks in Kerala.

References

Acharya, V. V., Khandwala, H., & Oncu, T. S. (2013). The growth of a shadow banking system in emerging markets: Evidence from India. *Journal of International Money and Finance, 39,* 207-230.

Allen, F., & Gale, D. (2004). Competition and financial stability. *Journal of Money, Credit, and Banking, 36*(3), 453-480.

Andersen, T. B., & Tarp, F. (2003). Financial liberalisation, financial development and economic growth in LDCs. *Journal of International Development, 15*(2), 189-209.
doi: 10.1002/jid.971

Ang, J. B. (2011). Savings mobilisation, financial development and liberalisation: The case of Malaysia. *Review of Income and Wealth, 57*(3), 449-470.

Bayar, Y. (2014). Financial development and domestic savings in emerging Asian countries. *Theoretical and Applied Economics, XXI*(7), 55-66.

Besanko, D., & Thakor, A. V. (1992). Banking deregulation: Allocational consequences of relaxing entry barriers. *Journal of Banking and Finance, 16*(5), 909-932.

Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *The American Economic Review, 95*(3), 780-795.

Cetorelli, N., Mandel, B. H., & Mollineaux, L. (2012). The evolution of banks and financial intermediation: Framing the analysis. *FRBNY Economic Policy Review*, 1-12.

Chaulagain, R. P. (2015). *Financial literacy for increasing sustainable access to finance in Nepal.* (NRB Working Paper No.31). Kathmandu: Nepal Rastra Bank.

Chaves, R. A., & Vega, C. G. (1993). *The design of successful rural financial intermediaries: evidence from Indonesia.* (Occasional Paper No.2059). Ohio,OH:The Ohio State University.

Claessens, S. (2009). *Competition in the financial sector: Overview of competition policies* (IMF WP/09/45). Washington DC: IMF.

Ellis, K., Lemma, A., & Rud, J. P. (2010). *Investigating the impact of access to financial services on household investment* . London, UK: Overseas Development Institute.

Giordano, L., & Guagliano, C. (2014). *Financial architecture and the source of growth: International evidence on technological change* (Working Paper 78). Rome: Consob. doi: 10.2139/ssrn.2474991

Güngör, H., Çiftçioğlu, S., & Balcılar, M. (2014). Does financial development increase private savings? The case of Turkey. *International Journal of Business and Social Science, 5*(2), 36-47.

Hirtle, B. (2005). *The impact of network size on bank branch performance* (Staff Report No.211). New York, NY: Federal Reserve Bank of New York.

Insead, X. V. (2001). Competition in the changing world of banking. *Oxford Review of Economic Policy, 17*(4), 535-547.

Jones, H., Williams, M., & Thorat, Y. (2007). *Rural financial institutions and agents in India: A historical and contemporary caomparative analysis.* Italy: FAO.

Kibaara, B. (2006). *Rural financial services in Kenya: What is working and why?* (Working Paper No 20). Tegemeo Institute of Agricultural Policy and Development, Nairobi: Egerton University.

Meyer, R. L., Khalily, M. B., & Hushak, L. J. (1990). *Bank branches and rural deposits: Evidence from Bangladesh* (Occasional Paper No.1763). Ohio, OH: The Ohio State University.

Moutot, P. (2007). *The role of other financial intermediaries in monetary and credit developments in the EURO area* (Occassional Paper Series No 75). Germany: European Central Bank.

Nair, A., & Fissha, A. (2010). *Rural banking: The case of rural and community banks in Ghana* (Discussion Paper 48). Washington, DC: The International Bank for Reconstruction and Development/The World Bank.

Okorie, A. (1992). Rural banking in Nigeria: Empirical evidence of indicative policy variables from Anambra state. *Agricultural Economics, 7*(1), 13-23.

Olokoyo, F. O., Adetiloye, K. A., & Ikpefan, O. A. (2016). Bank's intermediation role and industrial output in developing economies. *The Social Sciences, 11*(24), 5838-5844.

Prasad, A., & Ghosh, S. (2005). *Competition in Indian banking* (WP/05/141). Washington, DC: IMF.

Sakyi, P. A., Ofoeda, I., Coleman, A. K., & Abor, J. Y. (2014). Risk and performance of non-bank financial institutions. *International Journal of Financial Services Management, 7*(1), 19-35.

Swamy, V., & Tulasimala, B. K. (2011). Financial intermediaries and economic development: Evidence on transaction costs of borrowing for the poor. *International Journal of Banking and Finance* , 54-72. doi: 10.2139/ssrn.2126810

Tenaw, S., & Islam, K. M. (2009). *Rural financial services and effects of microfinance on agricultural productivity and on poverty* (Discussion Paper No 37). Helsinki: University of Helsinki.

Tobin, J., & Brainard, W. C. (1963). Financial intermediaries and the effectiveness of monetary controls. *The American Economic Review, 53*(2), 383-400.

Yaron, J., & Benjamin, M. (1997). Developing rural financial markets. *Finance & Development, December*, 40-43.