A REVIEW PAPER ON SHADOW BANKING IN INDIA

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Abstract

The field of 'shadow banking' has garnered a lot of interest from the research community since the financial crisis of 2007-08. On the other hand, their Indian counterparts – non-bank financial companies (NBFCs), still have a very shallow pool of knowledge. This paper intends to systematically review the existing literature on Indian NBFCs, categorize it thematically and summarize to find research gaps. The present study considers Scopus as its data house to undertake a 'systematic literature review' (SLR) of the NBFC sector in India. By synthesizing various exclusion criteria, relevant studies in the area are identified. Following this, 'conceptual/thematic content analysis' is done to identify popular themes. 25 relevant articles subject to the exclusion criteria are identified from the data house. Three dominant themes emerge. These are 'Performance of NBFCs', 'Risks and Challenges of NBFCs' and 'Evolution and Future of NBFCs'. Microfinance Institutions (NBFC-MFIs) were found to be the most-researched type of NBFC. Some of the gaps in research, as diagnosed by this review, are studies comparing banks and NBFCs, studies comparing different shadow banking systems in the world, studies analyzing NBFCs in the wake of COVID-19 and studies focusing on NBFCs other than MFIs (there are more than 10 different types of NBFCs). The paper is the first of its kind – systematically collating the literature on Indian shadow banking. This research work holds importance for future researchers looking for potential topics in the area of non-bank financial intermediation that are still waiting to be explored.

Keywords: Shadow Banking, Non-Bank Financial Companies, Financial Inclusion, Systematic Literature Review, Content Analysis

JEL Classification: G23, G21, G28, G30, O10

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1. Introduction

Shadow banking is a globally occurring phenomenon that has witnessed tremendous growth in the last decade. When this term was initially coined in 2007, shadow banking systems were just that - entities that acted like the shadows of banking institutions, supporting and complementing traditional banking undertakings. But their name could also be attributed to their shadowy nature – lurking untraceably without bounds, difficult to understand and regulate. Cut to a decade later, shadow banks have detached themselves from their banking counterparts and in fact, are slowly leaving them in the dust. Out of a total of $404.1 trillion in global financial assets, this sector constituted $200.2 trillion at the end of 2019 as compared to banking financial assets of $155.4 trillion. This has brought its share up to 49.5 per cent in the total global financial assets (Financial Stability Board, 2020). This is huge, considering that many economies in the world still don't have even a clear definition of what constitutes a shadow banking system.

According to the Financial Stability Board (FSB), a 'shadow banking system' is "an agglomeration of activities, markets, contracts, and institutions that operate either partially or fully outside the traditional commercial banking sector. They have popularly been characterised by the total or limited lack of regulation". (Financial Stability Board, 2011)

Recently, in 2018, the FSB decided to replace the term 'Shadow Banking' with the more technically-sound 'Non-Bank Financial Intermediation (NBFI)' in all future communications (Financial Stability Board, 2019). Shadow banking is no longer has negative connotations. So, this new terminology aims to capture the true underlying meaning of shadow banking which has the following defining features – credit intermediation; maturity, liquidity and credit transformation; limited regulation; absence of safety net.

In India, shadow banking is better known by the acronym 'NBFC' which is short for 'Non-Banking Financial Company'. According to RBI, to be deemed a Non-Bank Financial Company in India, an NBFC should be registered under the Companies Act, 1956. Its "principal business should be to conduct financial activity (i.e., the financial assets should be more than 50 per cent of the total assets) and the income from these financial assets should form more than 50 per cent of the gross income". This is also known as the 50-50 rule. (Reserve Bank of India, 2017)

NBFCs in India are different from banks in three aspects (Reserve Bank of India, 2017):

i) They cannot accept 'Demand Deposits' (deposits repayable on demand), but can accept 'fixed Public Deposits for a minimum period of 12 months and a maximum period of 60 months with interest rates capped at 12.5%.'

ii) They do not form part of the payment and settlement system and cannot draw cheques upon themselves.

iii) The depositors of NBFCs cannot avail the deposit insurance facility of the Deposit Insurance and Credit Guarantee Corporation (DICGC).

The Reserve Bank of India classifies NBFCs based on asset/liability structure, systemic importance, and nature of activities. Firstly, NBFCs can be of two types depending on their liability i.e., deposit-taking (NBFC-D) and non-deposit-taking (NBFC-ND). Because the depositors of NBFCs are not secured by the DICGC, only investment-grade NBFCs are permitted to accept fixed public deposits. Non-deposit-taking NBFCs raise funds from either the market or banks. These can be of two types depending on their systemic importance. RBI labels NBFCs with asset size greater than ₹500 crores as Non-Deposit taking Systemically Important NBFCs (NBFCs-ND-SI). Any NBFCs-ND having asset size less than ₹500 crores is labelled as Other NBFCs-ND.

NBFCs can also be categorized based on the nature of activities they undertake (Reserve Bank of India, 2020). These are:

a. *Investment and Credit Company (ICC):* An amalgamation of Asset Finance Companies (AFC), Loan Companies (LCs), and Investment Companies (ICs).
b. *NBFC-Infrastructure Finance Company (NBFC-IFC):* Uses at least 75 per cent of its total assets to provide infrastructure loans.
c. *NBFC-Systematically Important Core Investment Company (CIC-ND-SI):* Invests in equity shares, preference shares, debt or loans of group companies.
d. *Infrastructure Debt Fund-NBFC (IDF-NBFC):* Investment of long-term debt into infrastructure projects.
e. *NBFC-Micro Finance Institution (NBFC-MFI):* Provides credit to economically disadvantaged groups.
f. *NBFC-Factor:* Deals in the principal business of factoring i.e., acquisition of receivables at a discount.
g. *NBFC-Non-Operative Financial Holding Company (NOFHC):* Financial institution which helps to facilitate promoters or promoter groups to set up a new bank.

h. *Mortgage Guarantee Company (MGC):* Engaged in mortgage guarantee business.
i. *NBFC-Account Aggregator (NBFC-AA):* Compiles and furnishes information about a customer's financial assets to the customer or others as specified by the customer.
j. *NBFC-Peer to Peer Lending Platform (NBFC-P2P):* Arranges an online platform for borrowers and lenders to mobilize funds.

k. *Housing Finance Company (HFC):* Provides financing for housing.

2. Need of the Study

Lately, shadow intermediation of finance has been on an unstoppable journey. After the financial crisis of 2007-08 a lot of research was focused towards shadow banks in the US. But these entities are an important part of our economy too and there is not enough that has been researched in the Indian context. Through this study, we create a reference booklet for the important studies in this field, dissect them in order to better understand the nature of the literature and provide readers with gaps in the existing body of knowledge.

3. Objectives of the Study

In the light of the above-mentioned need for the study, following are the objectives of the paper:

i) To systematically review the existing literature on shadow banking in India.
ii) To identify the major themes, present in the literature.
iii) To summarize the key findings of the SLR.
iv) To find out possible research gaps in the study of NBFCs.

4. Research Methodology

The present study approaches the literature on Indian shadow banking through a structured review methodology. There is a need for greater production of reviews. Structured review methodology has been gaining recognition and acceptance for being a more scientific and relatively bias-free way of reviewing literature. To employ this technique, first the objectives under investigation have to be extremely well-defined so that, subsequently, detailed exclusion criteria can be created. We make use of one data house, i.e., Scopus. We find and review 2967 papers, employing various exclusion criteria to arrive at 25 relevant articles. With the help of query strings, we target three keywords associated with the sector. These are "Non-Bank Finance Companies" (and its renditions), "NBFC(s)" and "Shadow Banks" (and its renditions).

Further, after identifying these 25 studies, we use the technique of "conceptual content analysis" to capture the broad themes of research that have been done in this area.

Following are the exclusion criteria used keeping in mind the objectives of this study:

a. Exclusion Criterion 1: All studies not concerned with the shadow banking sector in India.
b. Exclusion Criterion 2: Studies that were manually found to be common among the outcomes generated by the three queries.
c. Exclusion Criterion 3: Any study that was not a journal article. This included documents like case studies, book chapters, books, notes and conference proceedings.
d. Exclusion Criterion 4: Articles found to be inaccessible or irrelevant by examining the abstract thoroughly and, in some cases, briefly perusing the paper. Irrelevance was taken to denote the following - papers essentially focussing on the banking industry, and not the non-banking sector; papers that were completely unrelated to the sector; papers that did not have a financial perspective; or papers that mentioned the India in passing but were not, in essence, about the Indian NBFC sector.

5. Review of Literature

The review of literature for Indian NBFCs has been done following a two-step approach. In the first step, we carry out a systematic literature review to identify the relevant papers according to the study objectives. After the relevant papers have been determined, we distinguish the different themes running through the papers. Furthermore, a detailed review of each paper is done one by one to get a comprehensive understanding of the literature. Finally, a summary table of some of the key research papers is prepared to systematically and thematically categorize the studies, along with highlighting their attributes like objectives, methodologies and findings.

5.1 Systematic Literature Review

Using the technique of systematic literature review (SLR) and employing 4 exclusion criteria, as mentioned in the research methodology, we gather 25 relevant articles. The step-by-step elimination of total publications to identify our sample literature is disclosed in Table 4. Most of the studies are eliminated at the first exclusion level, i.e., exclusion of non-Indian studies.

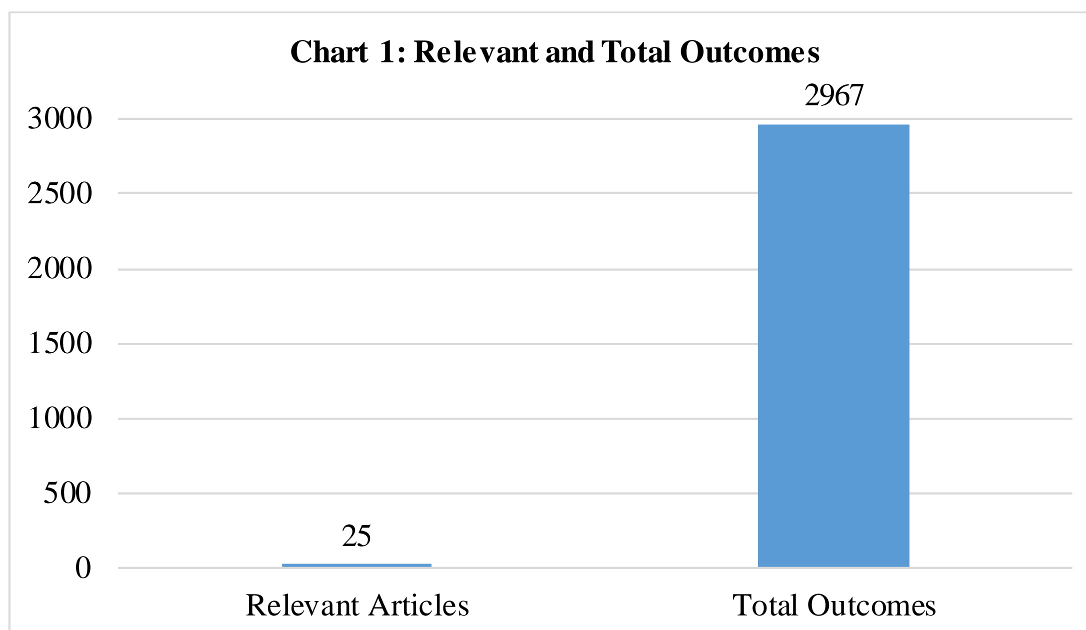
Table 4: Systematic Literature Review of NBFCs

S.No.	Search Queries/ Keywords	Total Outcomes	Excl. 1: Non-Indian Studies	Excl. 2: Common Studies	Excl. 3: Not Articles	Excl. 4: Irrelevant and Inaccessible Articles	Relevant Articles
1.	(("Non-Bank" OR "Non Bank" OR "Non-Banking" OR "Non Banking") AND ("Financial Companies" OR "F inance Companies"))	201	143	0	10	29	19
2.	(“NBFCs” OR “NBFC”)	116	42	31	16	21	6
3.	("Shadow Banking" OR "Shadow Bank")	2650	2610	8	10	22	0
	Total	**2967**	**2795**	**39**	**36**	**64**	**25**
	Percentage	**100%**	**94.5%**	**1.3%**	**1.2%**	**2.2%**	**0.8%**

Source: Author-Compilation from Scopus

6. Descriptive Statistics

In the following, descriptive statistics for the sampled studies are provided. Chart 1 shows that from 2967 total publications related to the three keywords, only 25 (less than 1%) papers are relevant to the objectives of this review. Majority of the studies (94.5%) were excluded due to not being India-centric. (See Table 4)



Source: Author-Compilation from Scopus

Table 1 presents a timeline of the sampled publications. If we take a closer look, we can see that more than half of the literature (64%) was published in the period 2018-2021, underlining the importance of a survey-style study. There can be two reasons for this observation. First, information on NBFCs is very difficult to collect and there are practically no databases that engage in collating NBFC data. The fact that NBFCs are not well-defined in many parts of the world also adds to the data availability argument. Thus, publications have increased since regulatory institutions, such as the RBI, have started assembling aggregate NBFC data in one place. Another reason could be that awareness and interest in NBFC-related research picked up after the sectoral crisis of 2018. None of the articles were found to be pre-millennial.

Table 1: Publication Count by Year

Year	No. of Papers	Percentage
2012	1	4%
2013	2	8%
2015	1	4%
2016	3	12%
2017	2	8%
2018	4	16%
2019	1	4%
2020	5	20%
2021	6	24%
TOTAL	**25**	**100%**

Source: Author-Compilation

Table 2 categorizes the sample literature according to the type of NBFC, the studies have targeted. We have already discussed the various types of NBFCs as catalogued by RBI. Majority of the research concentrates on either an aggregate or overall perspective on this sector or attempts to study NBFC-MFIs (See Chart 2). The reason for this can be attributed to the fact that aggregate NBFC data is easier to come by. And, as for MFI-centric studies, financial inclusion has been a hot-topic of research in India for the last decade, which is why we see more of those papers.

Table 2: Publication Count by NBFC-Type

S.No.	Type of NBFC	No. of Papers	Percentage
1.	Comprehensive Overall Look	10	40%
2.	NBFC-MFI	10	40%
3.	CIC-ND-SI	2	8%
4.	HFC	1	4%
6.	ICC	1	4%
7.	IDF-NBFC	1	4%
	TOTAL	**25**	**100%**

Source: Author-Compilation

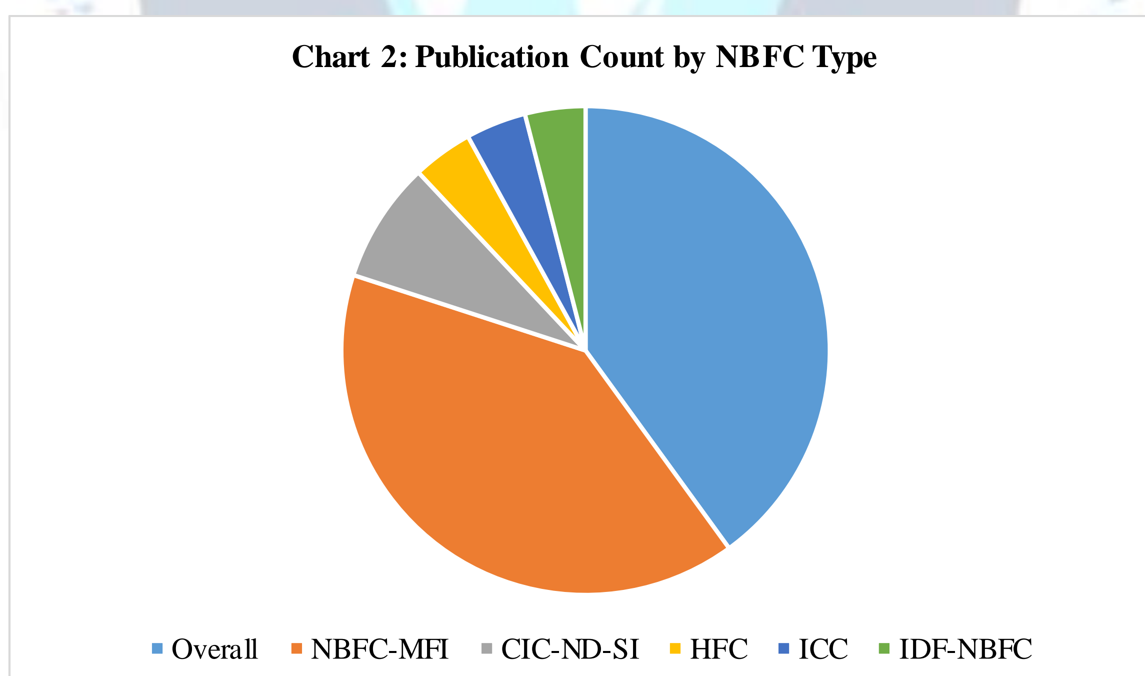


Table 3 describes the nature of research work, dividing it into either empirical studies or conceptual studies. Empirical research is meant to indicate research based on data gathered by original experiments. Conceptual studies, on the other hand, fundamentally try to establish connections between empirical studies or secondary data on the basis of observations. These studies don't employ an experimental model, analytical tool or technique. Our relevant literature shows that balanced attention has been given to both types of studies.

Table 3: Publication Count by Research Methodology

Type of Study	No. of Papers	Percentage
Empirical	13	52%
Conceptual	12	48%
TOTAL	**25**	**100%**

Source: Author-Compilation

7. Thematic Content Analysis

The 25 relevant articles are then categorized based on the major themes highlighted in the papers. For this, all the publications were studied assiduously beyond exclusion criteria 3 and conceptual content analysis was executed. The various themes captured are mentioned in Table 5. Three main themes emerge. These are – 'Performance of NBFCs', 'Risks, Problems or Challenges of NBFCs' and 'Evolution and Future of NBFCs'.

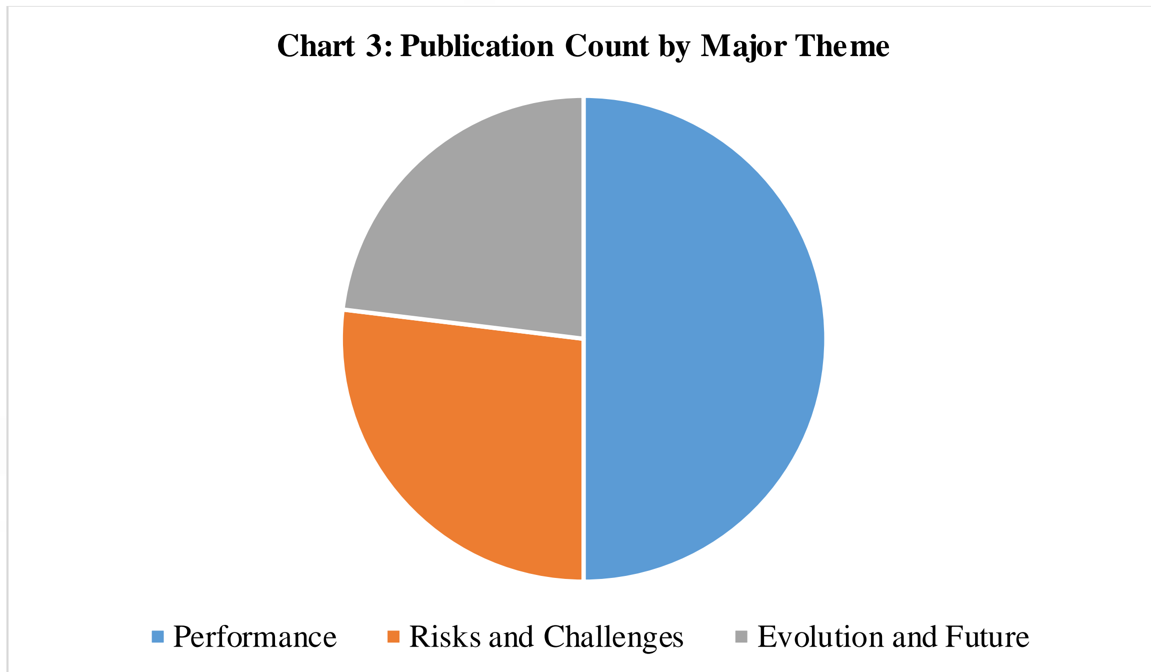
Table 5: Publication Count by Major Theme

S.No.	Major Themes	No. of Papers	Percentage
1.	Performance	13	52%
2.	Risks and Issues	7	28%
3.	Evolution and Future	5	20%
	TOTAL	**25**	**100%**

Source: Author-Compilation from Content Analysis of Relevant Articles

Let us discuss these themes one by one. The first theme captures those papers that talk about the role, profitability, efficiency and competitiveness of NBFCs in India. The second theme includes those papers focusing on the problems NBFCs are plagued with – the inherent risks, the NBFC crisis situation of 2018 and the challenges NBFCs have to face keeping in mind the regulatory environment. The last theme pertains to those studies that mainly concentrate on the

nature, origin, changes and future opportunities of this sector. Essentially, these papers talk about the journey Indian NBFCs are on. These papers have prescriptive qualities. Table 5 communicates the number of studies in each of these themes. We see that most of the studies are heavily attracted to measuring the performance of NBFCs (See Chart 3).



Now let us thematically review each of the relevant articles pertaining to these three themes.

7.1 Performance of NBFCs

Chandratreya et al. (2020) administered the technique of ratio analysis to judge the performance of 5 selected NBFCs operating in India for the study period of 2015-2019. Average, rank and CAGR were used for the purpose of analysing the data. The ratios considered for this study were "dividend per share (DPS), net profit margin (NPM), return on capital employed (ROCE), net worth/equity, debt-equity ratio, equity dividend rate and core operating income growth". The study deduced that NBFCs show upward trends in profitability, operational efficiency and returns to shareholders. Debt-equity ratio has been increasing which shows a reduced solvency position.

Thiyagarajan and Arulraj (2012) explored the different approaches that can be used by NBFCs in India to maximize their profits. Using structural equation modelling (SEM) technique, the authors tested various internal and external variables and observed their impact on core operating profit before tax. Some of the variables under observation were bank borrowings, debentures, operating assets, public deposit, operating liabilities like current liabilities, surplus available and internal accruals in the form of provisions. Short-term loans were considered as the mediating variable. The authors find that borrowings of different kinds were significantly related to profitability and managers should try to create an optimum funding strategy by combining bank loans, debentures and short-term funds to maximize their profit.

Mahesh and Nagarajan (2019) focussed on the financial performance of four selected NBFCs for 2010-2017. Tools like "CAGR, DuPont Analysis, Price Earnings to Growth Ratio (PEG), Enterprise Valuation Model" and ratios like "DPR, tax to net profit, PBT margin, PBIT margin, PBITDA, NPM, ROCE, ROE, ROA, asset turnover ratio, advances to loans ratio, written-off to total advances, long term debt to total assets, D-E ratio, interest coverage ratio and expenses to income ratio" were employed. DuPont analysis was used to identify the factor responsible for growth in ROE. The findings of the study were firm-specific.

In another basic study to capture the performance of NBFCs, Kapoor et al. (2017) observed year-on-year growth rate of total assets. It was concluded that the growth for the assets of NBFCs has been significant, except for a few years, which can be chalked up to strict regulations and lack of support from RBI.

Dutta et al. (2020) use the improved technique of two-stage data envelopment analysis (DEA) to study the efficiency of 43 NBFCs in India. The authors take panel data for the time period 2014-2018 and calculate super-efficiencies in the first stage and regress them using Tobit regression in the second stage to find exogenous factors that may affect the model significantly. To measure the efficiency, Overall Technical Efficiencies (OTE), Pure Technical Efficiencies (PTE) and Scale Efficiencies (SE) are calculated as per traditional DEA. The study intended to provide a mechanism to rank NBFCs in India. According to the traditional model, 8 NBFCs prove to be efficient. Whereas, after considering super-efficiency algorithm, 15 NBFCs are found to be efficient. Maximum productivity growth over the study period came out to be 8.53% based on Malmquist indices. The paper made an observation that differently sized

NBFCs had varying levels of efficiencies, the reason for which was given to be the lack of standardization in the Indian NBFC sector. The authors also suggested that managers should ROA and income diversity, instead of ROE, as an indicator of efficiency.

Bharti and Chitnis (2016) applied the same technique of DEA on microfinance institutions to examine any linkage between size and efficiency for 89 MFIs divided into small, medium and large. Asset and operating expenses were taken as the input parameters and loan outstanding and number of active borrowers were taken as the output variables. The study concluded that there is a clear and significant positive relationship between the size and efficiency of Indian MFIs.

Another study by Khan and Gulati (2021) used the same approach to observe total factor productivity (TFP) across organizational form and size groups for MFIs operating in India from 2005 to 2018. The study found that MFIs had an average productivity growth of 6.70% during this time period. The two driving factors in this growth are efficiency growth of 4.80% and technical progress of 2.30%. For organizational form, NBFC-MFIs show more TFP than non-NBFC-MFIs. Whereas, small MFIs show highest levels of TFP growth, followed by large MFIs and then medium MFIs.

Khan et al. (2021), again, for the same time period employed bootstrap DEA to find out bias-adjusted efficiency levels. The study communicates that size and ownership structure have positive significant impact on efficiency. Although, according to this paper, NBFC-MFIs and Non-NBFC-MFIs do not differ significantly in their performance. But efficiency is still better for NBFC-MFIs according to the results of bootstrap truncated regression. The authors propound that poor credit quality has led to deteriorating efficiency for the MFIs. To overcome this, MFIs need to focus on technological innovation and partnerships with FinTech firms to being about cost and time-efficiencies.

A study conducted by Ghose et al. (2018) examined the impact of the same variable, i.e., legal status on the performance of MFIs. For this study two legal statuses were studied - NGOs and NBFC-MFIs, instead of NBFC-MFIs and Non-NBFC-MFIs. Univariate tests like t-test and rank-sum test and multivariate tests like the random effect model were used to arrive at the findings. It was concluded that NGOs should not be transformed into NBFCs as NGOs have

better financial and sustainability performance and equivalent social performance. NGOs were also seen to have lower operational cost and better portfolio quality.

Jesudasan and D'Souza (2016) created the Index of Financial Inclusion (IFI) to understand the role of financial inclusion in the growth and development of 28 states and 4 union territories in India. The index consisted of two access indicators (number of bank branches per 1,000 km^2, number of bank branches per 1,00,000 people) and four usage indicators (number of loans per 1,000 people, average size of loans to per capita net state domestic product, number of deposits per 1,000 people, average size of deposits to per capita net state domestic product). Using the statistical tool of Granger Causality, the authors arrived at the conclusion that there is a "unidirectional causality between financial inclusion, geographic branch penetration, demographic branch penetration, deposit accounts per capita, and loan accounts per capita with growth and development" and "bidirectional causality between access to financial services and growth and development".

A paper by Acharya et al. (2013) used multiple linear regression to examine the credit availability behaviour when it comes to disbursement of credit to systematically important NBFCs by banks in India. The time period for the study was 2006 to 2011. It was found that a significant portion of NBFCs' liabilities is made up of bank lending. Also, lending by banks to NBFCs tends to fluctuate in line with allocation to priority lending sectors and decreases as banks expand credit in rural areas. The authors touch upon the financial crisis of 2008 included in their study period. It is seen that bank credit to NBFCs in India contracted after the events of 2008. All these observations hold true for loan and asset financing NBFCs, but not for investment companies. The most important takeaway from this paper is that banks consider lending to NBFCs as an alternative to lending to rural areas directly and in fact, lending to NBFCs is viewed as an easier and more efficient way to do it.

Annamalai and Hari (2016) conducted study on infrastructure debt funds (IDF-NBFCs), a type of NBFC, to gauge their role and effectiveness in financing long-term infrastructure projects in India. The paper used primary and secondary data to carry out a case-study form of analysis. The study makes several observations. IDFs are more effective than commercial banks in providing credit for infra projects. The reasons for this lie in their very structure. IDFs invest in less risky projects, in the sense that these projects have already been running for at least one

year. A tripartite agreement among the IDF, concessionaire and the project authority, ensures that IDFs are always able to affect loan recovery, which awards IDFs with AAA ratings. Because of such high ratings, IDFs are able to attract capital in the form of investment from insurance and pension funds. Borrowers are able to secure loans at lower interest rates from IDFs and unlike banks, IDFs, along with funds, also give management inputs on improving processes and systems. Though, IDFs are plagued by some constraints like restriction on nature of project and funding limit on one project.

Vignesh.S et al. (2018) utilized the Herfindahl-Hirschman Index (HHI) to assess the competition level in Indian NBFC-MFIs for 2000-2017. To address the level of concentration in the industry, concentration ratio (CR) was also calculated. The findings of this study suggest that NBFC-MFIs have an oligopolistic market structure with the most dominant MFI having a competitive edge over the other players.

7.2 Risks or Challenges of NBFCs

Arun and Kamath (2015) pointed out the importance of various financial institutions (with emphasis on MFIs) and policy actions in the endeavour towards greater financial inclusion. A few of the hurdles in its way were documented. One of them being not just supply-side deficiencies, but also demand side factors. It is argued that if the poor do not have the kind of livelihood that will enable them to access the supply of microfinance, inclusion will not happen even if supply is abundant. Demand side solutions are as important as supply side. Another issue is that new organizations are not given as much attention as existing institutions. Creation of new financial institutions is as necessary as strengthening existing ones.

Sinha and Jha (2021) conducted a study to analyse the challenges faced by banks, financial institutions, public authority, developers and concessionaires when funding PPP road projects. The authors look at three projects from December 2018 to March 2019 -- one port, one airport and one road project for the purpose of the study. The findings of the study suggest that commercial banks still dominate the PPP-credit sphere, especially when it comes to road projects. NBFCs in the private sector are not able to conquer this market due to delay in land acquisition and approval of grants to carry out the project leading to “unwarranted time and cost overruns”.

Ghosh et al. (2018) examined the interest rate sensitivity of NBFCs in India by using the techniques of panel regression and generalized autoregressive conditional heteroscedasticity (GARCH) (1,1). The relevant time period for the study was taken as 1 April 1996 to 30 August 2014. The authors address two main questions through their research – whether the stock returns of NBFCs exhibit significant sensitivity to changes in interest rates and whether all types of financial institutions are uniformly affected by such changes. S&P CNX 500 is taken as a proxy benchmark for market returns. It is found that there is a significant negative relationship between interest rate movements and the stock returns of NBFCs. According to the authors, this happens because investors tend to pull out their money from the market when interest rates are high feeling that higher borrowing costs for NBFCs is going to affect the balance sheets of NBFCs negatively, due to which the stock price falls. Large, medium and small NBFCs react differently to interest rate changes in the sense that large institutions are more sensitive to interest rate changes as compared to small and medium firms.

Ram Mohan (2018) examined the risks and problems at IL&FS Limited that vexed the financial services conglomerate at the end of 2018. Through an analysis of the case, the author observed that the fundamental issue with the company was that of illiquidity. The firm was using short-term funds to finance long-term infrastructure projects – a classic case of asset-liability mismatch. The failure to identify and address these liquidity issues at an early stage led to its bankruptcy. Illiquidity, in such cases, quickly turns into a solvency issue. Whereas, Chandrasekhar (2020), pointed out that the entire crisis happened due to lack of due diligence, poor financial management and fraudulent activities. But the author gave structural explanations for the mounting bad assets of IL&FS and DHFL, similar to the one given by Ram Mohan. He highlighted that NBFCs, due to the very nature of their lending activity (i.e., lending for longer periods in case of housing, auto and infrastructure finance) were facing two problems – first, risk of default by borrower and second, risk of losing bank capital against debentures, bonds and commercial papers.

But, Kukreja et al. (2021) approached the IL&FS failure from the point of view of corporate governance lapses. The main parties responsible for the governance failures were seen to be the top management, independent directors and external auditors. The authors recommended establishing an inspection mechanism for NBFC-ND-SIs, mandatory appointment and rotation of auditors and creation of an emergency fund for NBFCs to tide over such tumultuous times.

Similarly, Tiwary and Sahay (2021) investigated whether DHFL had failed due to such corporate governance lapses too. They relayed various instances where governance practices were violated. Earlier, it was believed that DHFL was a victim of sour market sentiment stemming from IL&FS' bitter fate. But the authors prove that actually DHFL was brewing a poisonous beverage on its own.

7.3 Evolution and Future of NBFCs

Sherpa (2013) documented the evolution and causes of shadow banking systems in India and China and found that both countries have always had some form of shadow banking entities, which have been regulated to some degree. With financial deregulation, the shadow banking systems of both these countries are becoming more interconnected and systemically relevant to the economy. These systems differ in their origin stories. Where Indian shadow banks took off as a result of liberalization, China's shadow banks were a result of financial rules and restrictions. But both of them had a backdrop of financial inclusion and catering to unbanked sections of the economy. The author suggests that now that both the systems are growing at such a massive pace, it is indeed crucial to create a supportive regulatory framework.

Pati (2017) through her study on Indian MFIs, investigates the impact of transformations in legal status, maturity and capital structure on sustainability. Using panel data regression analysis for the time period 2005-2015, the author observes a significant relationship between transformation and sustainability. This is not without compromising the smaller loan ticket size, which is a sign of mission drift for MFIs. In order to remain sustainable, MFIs tend to extend big ticket loans. Pati (2021) conducted another study, this time addressing why MFIs tend to eventually drift from their mission of 'micro-finance'. The author this time considers 2008-2015 as the study period. Mission drift is measured as the percentage of drifted MFIs to total MFIs. To comprehend mission drift, three variables are considered. These are number of active borrowers, share of female borrowers in total and share of rural borrowers in total. The author concludes that the reasons for the increased mission drift are – growing emphasis on sustainability and recognition of MFIs as financial institutions have made MFIs competitive; restriction on public funding for MFIs which has led to increase in funding cost; and policy move to transform NBFC-MFIs into banks which has put pressure on MFIs to be more efficient.

All these arguments justify why MFIs are being attracted towards large-sized loans and high net-worth clients.

Mohanty et al. (2020) targets the microfinance industry and scrutinizes it from two angles – need of corporate governance and of structural interest rates. This research work is descriptive in nature and makes use of secondary data. The study finds that it is imperative for RBI to constitute a separate regulatory and supervisory authority for MFIs in order to keep them attached to their original mission of serving the underprivileged. RBI needs to customize a structured interest rate system to make sure that cost of finance remains low for the poor section of the society.

Chakraborty (2020) undertook a study to critically examine the new policies and reforms under Union Budget 2019-20 pertaining to banks, NBFCs, insurance sector and pension funds. Through a descriptive style study, the author posits that NBFCs have been suffering from high level of NPAs due to toxic credit assets and reduction in liquidity post IL&FS crisis. The budget intends to make funding more accessible to NBFCs, which can help improve the NPA situation. Introduction of on-site and off-site inspection of financial institutions will help prevent a similar event in the future. Incentivizing government owned banks to look out for the stability of NBFCs will also help to provide extra cushioning to this sector. NBFCs are not well suited to fund long-term projects. Therefore, to ensure long-run capital formation in India, the paper suggests that development financial institutions (DFIs) and development banks be reinstated.

8. Summary Table

Some of the key studies based on performance, risk and challenges and evolution and future along with their objectives, methodology and findings have been summarized in Table 6 in the form of a thematic summary.

Table 6: Thematic Summary Table of LR

Theme	Sub-theme	Source	Objective	Methodology	Findings
Performance	*Financial Performance/ Profitability*	Thuyagarajan and Arulrai (2012)	Impact of internal and external variables on core operating profit before tax	Structural Equation Modelling (SEM)	Borrowings of different kinds impact profitability; optimum funding strategy by combining banks loans, debentures and short-term funds to maximize profit
		Chandratreya et al. (2020)	Performance of 5 selected NBFCs	Ratio Analysis - DPS, NPM, ROCE, NW/E, D/E, EDR, Core Operating Income Growth	Upward trend in profitability, operational efficiency and returns to shareholder, solvency position reduction
		Ghose et al. (2018)	Impact of Legal status (NGO or NBFC-MFI) on performance of MFIs	Univariate tests (t-test and rank-sum test) and multivariate tests (random effect model)	NGOs have better financial and sustainability performance and equivalent social performance; lower operational cost and better portfolio quality
	Efficiency/ Productivity	Bharti and Chitnis (2016)	Relationship between size and efficiency of 89 MFIs	DEA, input variable (asset and operating exp); output variable (loan o/s and no of borrowers)	Significant positive relationship
		Dutta et al. (2020)	Efficiency of 43 NBFCs	Two- stage DEA, traditional model (OTE, PTE, SE) and new model (super efficiency)	8 NBFCs efficient (traditional model), 15 NBFCs efficient (new model), differently sized NBFCs have different efficiencies
		Khan and Gulati (2021)	Relationship of legal status (NBFC-MFI and Non-NBFC-MFI) and size with Total Factor Productivity (TFP) of MFIs	DEA	Legal status (NBFC-MFI have more TFP than non-NBFC-MFI); Size (TFP for Small-scale > TFP for Large-scale > TFP for Medium-scale)

		Khan et al. (2021)	Relationship of legal status (NBFC-MFI and Non-NBFC-MFI) and size with Total Factor Productivity (TFP) of MFIs (bias-adjusted efficiency)	Bootstrap truncated DEA	Size and legal status have positive significant impact on efficiency
	Role	Jesudasan and D'Souza (2016)	Relationship between financial inclusion and growth of 28 states and 4 UTs	Creation of Index of Financial Inclusion (having 2 access indicators and 4 usage indicators); Granger Causality	Unidirectional causality (for financial inclusion, geographic and demographic branch penetration, deposit accounts per capita, and loan accounts per capita with growth and development); Bidirectional causality (for access to financial services and growth and development)
		Acharya et al. (2013)	Credit Availability to NBFCs-SI by Banks	Multiple Linear Regression	Significant portion of NBFC liabilities is made up of bank lending; credit to NBFCs decreased after 2008 crisis (true for loan and asset-financing NBFCs and not investment NBFCs); Banks consider lending to NBFCs as alternative for rural lending
		Annamalai and Hari (2016)	Effectiveness of IDF-NBFCs in financing long-term infrastructure projects	Case Study Analysis	IDFs are more effective than banks in providing credit for infra projects
	Competition	Vignesh.S et al. (2018)	Competition and concentration level for NBFC-MFIs	Herfindahl-Hirschman Index (HHI) and concentration ratio (CR)	NBFC-MFIs have oligopoly market structure

Risk & Challenges	Financial Inclusion	Arun and Kamath (2015)	Hurdles in financial inclusion		Demand-side deficiencies along with supply-side deficiencies; new MFIs not given as much as attention existing MFIs
	PPP Road Projects	Sinha and Jha (2021)	Challenges faced by financial institutions in funding PPP road projects	Three observation points - one port, one airport and one road project	Commercial banks still dominate funding of PPP projects; NBFCs not able to capture because of delays in land acquisition and approvals leading to time and cost overruns
	Interest Rate Sensitivity	Ghosh et al. (2018)	Relationship between Interest rate movements and stock returns of NBFCs	Panel regression and GARCH (1,1)	Significant negative relationship (investors pull out money when interest rates rise, thinking that cost of borrowing for NBFC is going to increase, affecting balance sheets negatively); large institutions more sensitive to interest rate changes
	Reasons for NBFC Crisis	Ram Mohan (2018)	IL&FS	Case Study Analysis	Asset-Liability Mismatch
		Chandrashekhar (2020)	IL&FS and DHFL	Case Study Analysis	Inadequate due-diligence, poor financial management and fraud
		Kukreja et al. (2021)	Corporate governance at IL&FS	Case Study Analysis	Failure of top management, independent directors and external auditors
		Tiwary and Sahay (2021)	Corporate governance at DHFL	Case Study Analysis	Failure happened due to CG problems and not liquidity issues as initially believed
Evolution & Future	Origin	Sherpa (2013)	Causes for origin of Shadow Banks in India and China	Descriptive based on secondary data	India (originated due to financial deregulation); China (originated due to financial restriction)
	Mission Drift	Pati (2017)	Impact of legal status, maturity and capital structure on sustainability of MFIs	Panel Data Regression	Significant relationship between transformation and sustainability; Mission drift witnessed (increase in ticket size)
		Pati (2021)	Reasons for mission drift in MFIs	3 variables used to measure mission drift	Restriction on public funding for MFIs has led to increase in funding cost, policy move to transform NBFC-MFIs into banks has put pressure on MFIs to be more efficient

Source: Author-Compilation from LR

9. Findings and Conclusions

After carrying out the systemic literature review, the research gaps identified can be listed as the following:

1. Most of the studies focus on the NBFC sector as a whole or deal with topics like microfinance and financial inclusion, thus concentrating on NBFC-MFIs. There is a lot of research potential when it comes to different types of NBFCs, other than MFIs. Researchers can work on ICCs, IFCs, CICs, IDFs, Factors, NOFHCs, MGCs, AAs, P2Ps and lastly, HFCs.

2. According to the content analysis, most of the research limits itself to three broad topics – ‘performance’, ‘problems’ and ‘evolution and future’. Even though these are the dominant themes that have been identified, research in these areas itself is inadequate. Future researchers can approach these topics from different angles by undertaking comparison-based studies transcending various economies, time periods and institutional type.

3. From our review sample, it has been observed that no study has compared banks with NBFCs. This is something that can be explored up by future researchers in various aspects like efficiency, profitability, NPAs, etc.

4. Empirical studies comparing the shadow banking systems of different countries are missing from the literature. Studies can be based on level of development, geographical groupings, etc.

5. The NBFC sector suffered a crisis situation in 2018. And, although we have found 4 case study style papers on IL&FS and DHFL, it is now possible to carry out empirical and analytical studies because sufficient time has passed since the event. Research looking into the bankruptcy of these two institutions can be conducted (using measures like Altman’s Z-Score, Beneish’s M-Score, etc.)

6. One more interesting area of research can be to see the impact of COVID-19 on this sector. No such studies were found.

10. Limitations of the Study

1. The papers are limited to a single data house, i.e., Scopus. Other data houses like Web of Science and Google Scholar can also be referred for a more comprehensive review. Forwards and backwards snowball search of references could have been done to overcome incompleteness of systematic research approach.

2. Selecting only Scopus-indexed papers for the study leads to ignoring papers published in lesser-known journals, where most of the NBFC literature is actually concentrated as of now.

3. Exclusion decision 4 (irrelevant studies), no matter how clearly defined, has been undertaken manually by the author based on personal judgement. This can introduce skew the findings due to human error and selection bias.

4. Seven inaccessible papers were removed from the final sample under exclusion criteria 4. If these papers could have been included in this study, it could have changed the findings entirely.

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