Market Structure and State of Competition in Microfinance Industry: An Empirical Examination in India

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ABSTRACT

Market structure is one of the important indicators of competitiveness and consumer welfare. An attempt is made in this study to examine the state of competition and market structure of microfinance industry in India. In order to understand the state of competition and market structure of microfinance industry in India, three indices i.e. Concentration Ratio (CR), Hirschman-Herfindahl Index (HHI) and Learner's Index (LI) are employed. Using data from MIX market database for 60 MFIs for the period 2008-09 to 2012-13, these indices are estimated. The study reveals that the competition in the Indian Microfinance industry has increased over the years. In the light of economic literature, it is also affirmed that the Microfinance Industry in India is nearly marked with the monopolistic market structures.

Keywords: Competition, market structure, microfinance institutions, Concentration ratio, Lerner' Index.

1. INTRODUCTION

Market structure is one of the important indicators of competitiveness and consumer welfare in any industry segment. Understanding market structure of the Micro Finance Institution (MFI) is unabatedly important due to its very socio-economic purpose and service targets to normally vulnerable low income underprivileged household of the society. The fragility of MFI market can be well understood from its definition itself. Though, there is no unanimous definition of MFI, however, MFI in general is an organization that focuses on offering credit and financial services to low income households so as to alleviate poverty and to help the poor and downtrodden households to set up their own income generating activities. There are various

types of MFIs – credit unions, commercial banks and non-governmental organization, non-banking financial companies, cooperatives, public sector banks and specialized public sector financial institutions. The key drivers of emergence of MFIs especially in developing economies are due to subsidised funding from government, non-governmental organizations, commercial banks and specialized financial institutions (Ghosh and Tassel, 2011, Assefa et. al., 2013).

India is a land of informal finances for its majority of tribal and rural populace. Literature suggests that 95% of all borrowers living below $2 a day in Hyderabad, India access informal sources even when banks are present (Banerjee and Duflo, 2007). The high incidence of rural and tribal poverty, low education and skill levels, lack of marketable assets, and uncertain job markets, lack of access to formal finance has created a condition of informal market for finance. This informal market for finance generally satisfy the low income households' credit need, where elaborate networks of credit delivery have been set up by different kinds of informal suppliers. The features of such an informal market for finance are information asymmetry, lack of legal sanction, unregulated, exorbitant and variable interest rates, social exploitation and welfare loss, unsecured lending, high risk clientele base and lenders' socio orientation. The emergence of organized microfinance could be a solution to such informality and thus the growth of MFIs in India. To tap this vast market, there is an unprecedented growth of MFIs over the years in India. The continual entry of new MFIs and exit of old ones might have resulted in a more competitive structure or a more monopolistic one or a oligopolistic one, depending on the ability of the MFIs to compete with each other. However, the emergence of commercialization and 'for profit' microfinance institutions has warranted strong regulation to ensure healthy competition and clients welfare in the India's MFI space.

State regulations on microfinance and Micro Finance Institution (MFI) Bills 2012 tabled in India have drawn a great deal of attention of policy makers, regulators, donors, activists, researchers and academicians across the world. In the year 2010, the Andhra Pradesh state regulation on microfinance institutions for the first time came into force due to brimming controversy about the adoption of unethical microfinance lending practices by some of the microfinance institutions in the aforesaid southern state of India. This controversy has stirred a broader debate about commercialization, diversion of purpose, orientation, spirit of lending and mission of microfinance institutions are vehemently questioned. There are concerns that some MFIs are profiteering at the expense of poor borrowers. They seem to be attracted by the high repayment rates, and charging very high interest rates which seemingly contradicts the original purpose of the MFI movement, namely making capital accessible to the poor to lift them out of poverty.

Studies report that competition between MFIs in developing countries has increased dramatically in the last decade (McIntosh and Wydick, 2005, Rhyne and Otero, 2006). Literature also affirms that commercial MFI lenders with market power charges exorbitant interest rates operate inefficiently and exploits the borrowers (Quidt, *et. al.*, 2016). The competition has a strong bearing on the MFIs' efficiency, service quality, product innovation and development, outreach and diversity. Competition also affects the financial stability of the MFIs (Claessens, 2009). The competition among MFIs may influence the micro credit market dynamics by lowering down the interest rate and in turn improve the service access to poor clients (Cetorelli, 2001 and Tabak et. al., 2012). Competition among lenders for external funds can lead to higher aggregate poverty reduction (Ghosh and Tassel, 2011). However, it is also observed that MFIs have been confronted with a wide array of challenges across the countries that have affected doing business in many ways. Due to competition, MFIs have been continually lowering interest rates, lowering costs of

operations, and trying to achieve greater efficiency, and the introduction of new financial services, such as saving accounts and insurance services (McIntosh and Wydick, 2005). The wide variations in operating costs across MFIs are observed, often within the same geographical region, which is attributed to competition (Cull, *et. al.*, 2007 and Gonzalez, 2010).

However, the feature of Microfinance industry and the market structures in which these institutions operates has not been much explored in the existing literature. There is a need of studying the features and market structure of Microfinance industry, which would trigger the debate among academics, policy-makers, regulators and competition commission for the just and fair move of this sector. Apart from the above, the recent debates about commercialization and the trade-off between the objectives of making profits and alleviating poverty under the arrangement of microfinance, this motivates us to examine the state of the competition and market structure of MFIs in India.

The rest of the paper is organised under four heads such as review of literature, data and methodology, findings and discussion and conclusion.

2. REVIEW OF LITERATURE

Standard economic literature suggests that competition enhances the firm performance. Hicks (1935) under his 'quite life hypothesis' posit that social loss is attributed to the exercise of market power in concentrated markets. It is the monopoly power that allows managers a quiet life free from competition and thus increased concentration should bring about a decrease in efficiency. Bain (1951) affirms that firms increase market concentration, trigger higher prices and in turn appropriate abnormal profits. However (Berger, 1995) refutes the literature that establishes the direct relationship between firms' concentration in the market and their profitability. Berger and Hannan (1998) claim that the exercise of market power not only engulf social loss but also induce higher social costs because it may lessen the effort by managers to operate efficiently. Nickell (1996) observes that there is strong positive relationship between competition and manufacturing firms' performance.

Empirical literature has engaged a wide array of indicators such as CR, HHI, PanzarRosse Measure (PRR) and H Index (HI) to measure competition in banking and Microfinance sector. Olivares-Polanco (2005) posits that low concentration is associated with high competition. However, (Bikker and Haaf, 2002) criticize the fact that the higher concentration does not always imply a lack of competition. Literature also suggests that firm's efficiency is not only affected by structural factors (structure and concentration) but also by non-structural factors (Baumol, *et. al.*, 1982; Bresnahan, 1989; Rosse and Panzar, 1977; Panzar and Rosse, 1987). Non-structural measures of competition are mainly based on the Lerner (1934) measure of monopoly power. Specifically, they include measures of competition between oligopolists (Iwata, 1974) and those that test for the competitive conditions in contestable markets (Bresnahan, 1982; Lau, 1982; Panzar and Rosse, 1987). However, Schaffer (1983a, 1983b) also stated that the H statistics is used as an alternative measure of competition such as LI. However, Kotter et. al., (2008) vehemently criticized the PR approach as a measure of competition and they preferred LI over PR approach.

Competition is often assessed by the extent of market power that firms exercise, i.e. the ability of firms to set market prices above marginal costs. Applying this concept directly to all MFIs would pose a challenge. In the early years, even today to some extent, the price of MFIs may not reflect the associated cost. Subsidy

is among the reasons. Subsidised MFIs, for any reason, could provide services at a price much lower than their marginal costs. As a result using these measures may render meaningless and unreliable results. For instance, if we apply a LI measure of market power for MFIs operating with injected subsidies that enable them to provide loans at subsidized prices, we may find negative values, while theoretically, the value of a LI is bound between 0 and 1. We focus on commercial-oriented MFIs that, given their profit maximizing behaviour, enables us to draw lessons from a vast empirical literature on bank competition. Furthermore, commercial-oriented MFIs are becoming increasingly important. This is due to the growing movement of scaling-up of many established non-profit MFIs and start operating on commercial lines while many standard banks and financial institutions start scaling-down and moving into microfinance.

Based on the aforesaid discussion, it is affirmed that the LI is having better edge over other measures in terms of understanding the market power of the MFIs in the Indian microfinance industry. As a measure of market power index, it compares output pricing and marginal cost. It is defined as the ratio between the difference between the average revenue and marginal cost to average revenue of the MFIs. Prices are calculated as total MFI revenues over total assets, whereas marginal costs are estimates of the translog cost function with respect to output. If the LI value is one, it indicates a monopoly in a market. If the index tends to zero, it indicates the existence of a perfect competition in a market (Holman, 2007). An increase in the LI indicates a deterioration of the competitive conduct of the MFIs and thus less competition. Thus we engage LI in the final stage to examine the MFI market structure in India and the detail construction methodology for LI in this study is presented below. However, this study keeping the idea simple, examines the market structure using the CR, HHI and LI.

3. DATA AND METHODOLOGY

3.1. Nature and Sources of Data

This study is based on secondary data obtained from MIX market database for the study period starting from 2008-09 to 2012-13. A sample of 60 firms representing different regions of India is taken into account for measuring MFI market structure in India. Due to missing data in MIX market database for many Indian MFIs required for measuring market structures and performances, we have delimited our samples to only 60 MFIs. The time series data for a period of five years is chosen two years before and three years after the enforcement of the state regulation for MFIs in India.

3.2. Variables and Constructs

The following variables are used in this chapter in constructing various indices to help examining the structure of Microfinance industry in India. The brief definitions of these variables are presented below:

Total Asset: It is measured by the annual sum of the assets reported by the MFI

Total Revenue: It is sum of the annual operating and non-operating income of the MFI

Average Revenue: It is otherwise termed as price, which is measured by the ratio of total income to total asset of the MFI

Total Cost: It is sum of the cost of capital and cost of labour for the MFI.

Cost of Labour: It's a proxy measure for the cost of labour which is the ratio of personal expenses to total number of employees for the MFI.

Cost of Capital: The proxy for the cost of capital is computed as the ratio of operating expenses without personnel expenses to net fixed asset for the MFI.

Market Structure: Market concentration is measured via CR, HHI and LI. The detailed construction methodologies of these indices are given in the following sections.

Concentration Ratio: The CR measures the percentage of the market's total share supplied by its "n" largest firms (Mankiw, 2012). Shares can be measured by revenues, profits, operating profits, turnover or any other relevant indicator. The value of "*n*" is often four, but may be five, six, eight, twelve or any other small number. However, I have estimated three concentration ratios i.e. four MFI, 8 MFI and 16 MFI concentration ratios. The construction of these indices is attempted with total asset and the net operating income. The concentration Index can be expressed as:

$$CR_n = S_1 + S_2 + S_3, ..., + S_n = \sum_{i=1}^{n} S_i \qquad (1)$$

where S_i is the market share of the *i*-th firm and CR_n is the CR of *n* largest firms. The higher the CR, the higher is the concentration on the market. For instance, if the CR for the fourth firm (CR_4) is 90 percent, it indicates that largest four firms in the industry cover 90 percent of the total market share. The CR is a very simple measure and it is usually calculated for oligopolistic market structures. However, the disadvantage of concentration ratio is that it provides information about the size of firms within the peer group (Morasch, 2002). The mathematical problem of the indicator is the use of a simple sum of market shares.

Herfindahl-Hirschman Index: HHI is another indicator of market concentration, which is calculated by squaring the percentage market share of each firm in the market and summing these numbers:

$$HHI = S_1^2 + S_2^2 + S_3^2 + ... S_n^2 = \sum_{i=1}^{n} S_i^2 \qquad (2)$$

where, 'S_i' is the market share of the *i*-th firm and '*n*' is the number of firms in a market (Holman 2007). The higher the index value, the higher is the degree of market concentration and thus the market is more inefficient and is more in need of regulation. The index achieves the value of 10 000 if the market is a pure monopoly. Otherwise, the lower the index, the more competitive is the market (if an industry has 10000 companies each with 0.01 % market share, then the index would be only 10). The HHI better reflects a concentration in a market than usual indicators of CR from a mathematical point of view. Economists believe that traditional CR do not reflect the size of a particular firm within the peer group and therefore do not measure the market power of the largest firms in the market as effectively as the HHI index. The HHI assigns square weight of companies with a high market share.

Measuring Competition via LI: The LI is employed as a proxy to measure the extent of competition across the firms within the respective industries. The formula used for computing competition is:

$$LI = (P-MC)/P$$

where, 'P' is the average revenue and MC is marginal cost. Following the estimation procedures of Maudos and Guevara (2004), output price (P) is computed as the ratio of operating income to total asset. The marginal cost is derived from the estimated the following form of translog cost function:

$$\text{LnC}_{i,t} = \alpha_0 + \alpha_1 \ln y_{i,t} + \frac{1}{2}\alpha_2(\ln y_{i,t})^2 + \sum_{j=1}^{2} \beta_j \ln w_{j,i,t} + \sum_{j=1}^{2} \beta_j (\ln w_{j,i,t})^2$$

$$+ \sum_{j=1}^{2} \gamma_j \ln y_{i,t} \ln w_{i,j,t} + \sum\sum_{j<k} \gamma_{j,k} \ln w_{i,j,t} \ln w_{i,k,t} + \delta_1 \text{ Trend}$$

$$+ \frac{1}{2}\delta_2 \text{ Trend}^2 + \delta_3 y_{i,t} \text{ Time Trend} + \sum_{j=1}^{2} \eta_j \ln w_{i,j,t} \text{ Trend} + \varepsilon_{i,t} \tag{3}$$

where, $C_{i,t}$ is the total cost of the firm 'i' at year 't'. The explanatory variable $y_{i,t}$ represents output of firm 'i' at year 't' and $w_{j,i,t}$ are 'j' input prices of the firm 'i' at year 't'. In estimating input prices of the firms, we have assumed two factor input prices such as labour (w1) and capital (*w*2). The cost of labour is computed as a ratio of personal expenses to total number of employees and the cost of capital is computed as the ratio of operating expenses without personnel expenses to net fixed asset. Following the Hermes *et. al.*, (2011) translog cost function specification, we have estimated the cost frontier including a time trend, where total cost is sum of the operating and financial costs of the firm 'i' at year 't'. The rationale of inclusion of time trend in cost frontier estimation is to capture the effect of technological change and firm specific fixed effect to deal with the unobserved firm heterogeneity in the industry and associated difference in cost.

The marginal cost (MC) of the firm 'i' at year 't' is derived by taking the derivative of the total cost function with respect to $\ln y_{i,t}$. The equation for MC is given hereunder:

$$\text{MC}_{i,t} = (C_{i,t}/y_{i,t})\left[\alpha_1 + \alpha_2 \ln y_{i,t} + \sum_{j=1}^{2} \gamma_j \ln w_{j,i,t} + \delta_3 \text{ Trend}\right] \tag{4}$$

MC is estimated from the observed variables ($C_{i,t}$ - total cost, $y_{i,t}$ - total output and input prices - $w_{j,i,t}$) and estimated translog cost function coefficients (α_1, α_2, γ_j and δ_3).

However, in order to understand the market structure of the MFIs in India, I have employed three such popular indicators i.e. the concentration ratios (CR4, CR8 and CR16), the HHI and the LI. These indices are employed here to measure of market power of MFIs in India. The constructions of these indices are attempted with total asset and the net operating income.

4. MAJOR FINDINGS AND DISCUSSION

4.1. Major Findings

A market is characterized by its structure. In the present study context, who are the buyers and sellers in the MFI market? How many participants are there on buy and sell side of this market? How easy is it to enter and exit the MFI market? How information flows to the MFI market participants? What is the extent of information asymmetry that exists among the participants and how do they use it in the MFI market? How much influence do participants have on price of goods and services they transact in? How does

the government influence the pricing decision of the producer? How trade is executed and is there any transaction or transportation cost involved? What is special about competition in MFI market? And how does competition matter in MFI market? Clearly, all these characteristics are fluid and have implications for MFI market outcomes. Against this backdrop, the following section presents the empirical observations on the features and structure of MFI market in India.
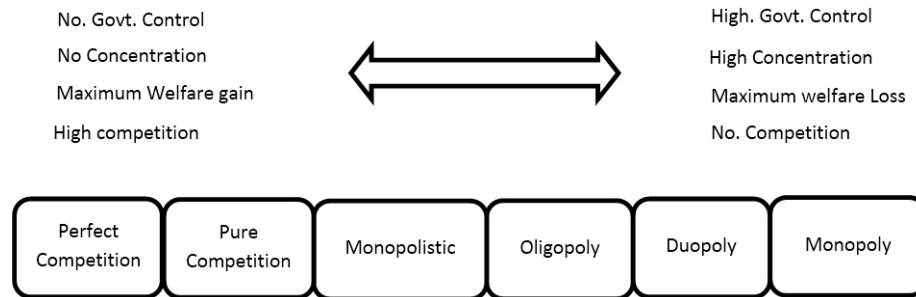

Figure 1: Market Structures

Economics literature presents a variety of market structures in which firms can operate. Theory of the firm proposed by neoclassical economists provides an extensive view how to differentiate the market structures based on certain parameters. According to them, the market structures can be visualized in a spectrum, from perfect competition to pure monopoly (See Figure 1). Market power identifies the 'degree of a control that has a single firm or group of firms over the decision about output and prices in a given market (Samuelson, 2013)'. Among the most commonly used indicators for measuring market power are CR. In some oligopolistic structures just two or four strongest firms hold 90% of the total market (U.S. Census Bureau, 2009).

There are wide array of indicators available in the microeconomics literature to measure the market structure of firms in an industry. In order to understand the market structure of the MFIs in India, three measures are employed i.e. the Concentration Ratios (CR4, CR8 and CR16), the HHI and the LI. These indices are employed here to measures of market power of MFIs in India. The constructions of these indices are attempted with total asset and the net operating income. The findings are presented in the following sections.

It is observed from the Table 1 that the concentration ratios of 4, 8 and 16 largest firms (CR4, CR8 and CR16) in the Indian Microfinance industry are seen to have been 63.17%, 72.97% and 85.70% from total asset holdings of the peer group in the year 2008-09. During the same period, the largest asset holding MFI in the Indian Microfinance industry among our sample units is 'Spandana Spoorthy' of Telangana one of the southern States having asset worth of USD 359,544,429. The 'Spandana Spoorthy' holds about 39.1% of the total assets of the 60 MFIs under the study. Also the second largest asset holding remains with the 'SHARE' of Telangana State having asset holding about 21.7%. The smallest asset holding MFIs in the big (CR8) belongs to the MFI 'MMFL' having asset holding of 2.1% in the industry. Nevertheless, over the years the asset holdings of these top MFIs are consistently declining in percentage a term, which suggests that the other MFIs are entering into this space. It is affirmed from the fact that by 2012-13 the asset share of Spandana Spoorthy and SHARE are seen to have been reduced to 14.61% and 13.99%. Further examining the CR, it is amply evidenced that the asset holding concentrations have been declining irrespective of the CR4, CR8 and CR16 (Table 1 and Table 3).

Table 1
Distribution of MFI Asset CR and LI over time in India

Year	Sum of the Total Asset with MFIs (in USD)	C4	C8	C16	HHI	LI
2008-09	1127327048	63.17%	72.97%	85.70%	1590.64	38.68%
2009-10	2181654070	67.09%	76.50%	87.49%	1694.34	38.86%
2010-11	2359140182	65.52%	74.51%	86.20%	1568.05	39.05%
2011-12	1953664912	61.27%	72.58%	84.29%	1369.44	39.23%
2012-13	1680023977	51.30%	69.30%	85.25%	794.68	39.43%
Average	1860362038	61.67%	73.17%	85.79%	1403.43	39.05%

While the net operating income based estimated CR over the study period suggest that the eight largest firms in the Microfinance industry (CR8) is 86.42% from total net operating income of the peer group. The CR of 16 largest firms and four largest firms are seen to have been 91.39 % and 77.02 % from total net operating income of the Microfinance industry respectively (Table 2). During this period, the largest net operating income MFI in the Indian Microfinance industry out of our sample unit is not limited to a specific MFI. However, some of the best performing MFIs in terms of net operating holdings are 'SpandanaSpoorthy' of Telangana, CCFID of Tamilnadu and CDOT of Bihar, SHARE of Telengana and Cashpor MC of Uttar Pradesh. The result here suggests that the Microfianance industry space in India is dominated by a few best performing firms.

Further the average HHI index estimated from total asset holding for the Indian Microfinance industry for the period 2008-09 to 2012-13 is observed to be 1403. This value represents moderately concentrated market. The CR of four largest firms reaches 61.67%, and it highlights the existence of a loose monopolistic Microfinance industry in India. However, HHI index is sensitive to changes in the asset sizes of the largest MFIs in the Industry. As it is observed from the Table 3 that the relative asset size of the largest MFI over the years is declining from 39.1% to 14.6%, the Herfindahl index tends to be more useful than a standard n-firms concentrated ratio.

While examining the overall average HHI estimated from net operating income for the Microfinance industry for the period 2008-09 to 2012-13 is observed to be 2170.54. This value represents moderately concentrated market. The CR of four largest firms reaches 77.02 %, and it highlights the existence of a monopolistic industry structure (Table 2).

Table 2
Distribution of MFI Net Operating Income CR and LI over time in India

Year	Total Net operating Income (in USD)	C4	C8	C16	HHI	LI
2008-09	142756267	76.52%	85.83%	97.05%	2297.12	38.68%
2009-10	109246546	75.32%	84.96%	90.46%	2089.84	38.86%
2010-11	129283564	79.18%	91.27%	89.10%	1783.66	39.05%
2011-12	94717643	75.97%	83.77%	89.69%	2528.32	39.23%
2012-13	111247525	78.10%	86.27%	90.63%	2153.75	39.43%
Average	117450309	77.02%	86.42%	91.39%	2170.54	39.05%

This result here suggests that the Microfinance industry has been attracting new players into this market space, which could be due to the availability of untapped excess profit. Further, the entry of new firms with the fresh assets, exit of loss making MFIs with asset withdrawals and the expansion of asset base of the existing firms affirm that the competition is underway in the Indian Microfinance Industry space. The results also suggest that the Indian Microfinance industry space is dominated by a few players and their presence is highly sporadic in a few geographic locations in the country. Many such MFIs under study are not having pan India presence and they are highly differentiated in terms of product of service offerings, lending business model, legal structure loan repayment structure, mode of interest rate calculation and target clients. In the guise of product and service differentiations and the dominating sporadic presence, these MFIs may lead to market exploitation and thus social cost. Against this backdrop, the study here recommends that there is need for the constant vigilance of the regulatory institutions so as to deliver the best to the client and to the society.

While examining the average value of LIfor the sample firms, it is observed to be 0.392 (Table 1). However, the market power of MFIs is observed to be higher in the southern India as compared to other regions of the country (results are not reported here). This suggests that relative lower value of the Learner index in the southern India indicates an improvement of the competitive conduct of the MFIs and thus high competition among them in MFIs. However, the market power of MFIs in India is affirmed to be reasonably higher compared to the banks, where average LI is significantly lower for the banks with an average value of 0.2599 for the study period (see, https://fred.stlouisfed.org/series/DDOI04INA066NWDB).It is also observed from the data that there is a decline in LI of market power over time, especially over the period 2010-2012 which could be due to the strong intervention of the regulators in the microfinance space in India. Overall, there appears an increase in competition over time in India, which can be clearly observed from the trend line.

4.2. Discussion

The study has engaged the relative indicators such as CR, HHI and LI to examine the state of competition and market structure of Microfinance industry in India. Theoretical microeconomics literature adjudge the competitive market structure based on (i) large number of buyers and sellers, where no single players just can't influence the price and quantity of services in the market, (ii) product and service offerings are unique and homogenous, (iii) price is uniform and determined by the automatic adjustment of the quantity of goods/services demanded and supplied in the market (iv) seller obtains normal profit in the long run (v) information flow is perfect and equally available to the players in the market, (vi) free entry and free exit for both buyers and sellers in the long run, (vii) no transportation cost associated involved in this market, (viii) no government intervention, (ix) allocation distribution efficiency is optimally attended and thus there is no social cost involved and (x) no advertisement cost involved in selling and promoting the products in the market.

While monopoly is a market structure that contains a single seller who sells either homogenous or heterogeneous products/services in the market. The monopolist is a price setter rather than a price taker but he can't assume that price is unaffected by his actions. It can be stressed that the features of monopoly market structure are quite in contrast and opposite of the perfect competition market structure.

However, the monopolistic market structure blends features of both monopoly and perfect competition. It covers an industry with a large number of firms selling closely related products and services with marked differentiation. Though the market share of each firm is small in relation to market as a whole but some firms still possesses the some control over the price at which it sells the product. While oligopolistic market structure shares some of the features of monopolistic and monopoly market conditions but this market structure is dominated by a few players in the industry. The sellers in this industry are engaged in price wars and sell either homogenous or heterogeneous products.

Based on the theoretical underpinning of market structure, we have developed a framework for examining the market structure of Microfinance Industry in India. The results here confirm that there are are about 5.46 cr. active borrowers associated with the sample firms, which suggests that Microfinance industry extends the microfinance products and services to a large number of buyers. The sellers in the Indian Microfinance Industry space are crowded with the diverse categories of small, medium and large sized MFIs. However, a very few firms (25%) of MFIs are holding about 85% of asset in the Indian Microfinance industry. In terms of lending business model, the MFIs in India either lend to the individuals or to the groups but the lending practice is more biased towards the later. Indian MFIs are also differentiated in terms of their loan repayment structure.

The repayment structure of clients varies from daily to monthly and in some cases like agricultural loans have bullet and cash flow based loan repayment structure based on cropping pattern. However, the interest rate is no longer uniform in the Microfinance Industry and it varies across to firm and geographic locations. However, the regulatory intervention have standardized and reduced the interest rate fixation of varieties of loans. In terms of product and service offerings, Indian MFIs have explored and extended savings, insurances, pension and remittances facilities. MFIs have also extended the service to the clients' linking them into the capital market, mutual fund and insurance markets. In terms of legal structure the MFIs in India can broadly be classified into three categories i.e. for profit, not for profit and co-operative based mutual benefit MFIs. It is also observed that some of the profit motivated MFIs are still incurring losses and a few of them are still continuing the operations with a view to make profit in the future. However, the flow of information is highly imperfect and disproportionately available to the players in the market. Especially the problem of illiteracy has impaired the flow of information on the MFIs products and services. The entry into and exit from this market is moderately regulated by the RBI and also some state governments impose preconditions of operation of MFIs in their states.

Beyond the theoretical understanding the MFI market structures, we have engaged in the standard industrial economics tools to understand the MFI market structure in India. We, engage three relative broad measures, i.e., CR, HHI and LI in understanding the MFI market structure. The CR4, CR8 and CR16 result also affirm that the asset and net operating income is lying with a few dominant MFIs. The average HHI index estimated both from total asset holding and net operating income suggests that the MFI market is moderately concentrated. However, the relative asset size of the largest MFI over the years is declining substantially, which indicates that the competition is brimming up in the Indian MFI space. The finding from the LI also suggests that market is moderately concentrated and there is a substantial mark-up available to the MFIs in this industry space and the competition is growing over the years.

5. CONCLUSION

Understanding the measurement of market power and market concentration in the MFI space is not only essential for the Competition Commission and market regulators in India but also for the other stakeholders in the microfinance industry space. Based economic literature and our analysis, we conclude that the microfinance industry follows monopolistic market structure. The industry blends the features of perfect competition and monopoly, where MFIs as a whole engages a large number of sellers selling closely related but differentiated products. Though some firms are dominating and having control over resources, still there are many firms operating in this market space. Nevertheless, RBI as regulator, state machineries and Competition Commission of India are closely vigilant upon the developments in this sector.

This study contributes to the literature both by extending the analysis of features, state of competition and market structure of MFIs in India. At the same time, this study is not free from limitations. While examining the proper MFI market structure, we should have also paid careful attention to the MFI schemes, analysis of the biggest firms in the industry, analysis of existence of differentiated product and service offerings. However, these are beyond the scope of this study. Thus, there is a need of further strategical and financial analysis before concluding the proper MFI market structure in India.

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