STATE OF COMPETITION AMONG THE MUTUAL FUNDS IN INDIA: AN EXPLORATORY ANALYSIS[1]

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Abstract

In the context of growing importance of mutual funds in the developing countries like India, the study objectives are to analyze the structure of the mutual fund industry in India, to examine the state of competition among the mutual funds, sector wise competition and within sector competition. The preliminary observation provides that there occurred drastic changes in the industry after liberalization. The entry of large number of private and the foreign mutual funds (both joint venture predominantly Indian and foreign) has changed the structure of the industry as a whole. This could have made changes in the total resources mobilization and the product innovation (new schemes under each mutual fund). This large number of new entrants could have led to competition among the mutual funds in the industry for their existence. An attempt was made to understand whether the structural changes in the industry have led to the competition among the mutual funds. For this purpose, the study analyzed competition among the mutual funds which includes private sector, public sector and foreign sector mutual funds. The methodology proposed by William J Baumol and Grossack were used to analyze the state of competition in the mutual fund industry. As per the literature the Herfindal – Hirshman Index (HHI) of concentration was used to estimate the competition among the mutual funds. Over all the concentration measure shows that the concentration has declined in the industry and competition has increased among the mutual funds over the period 2003-06. The results of Grossack model also suggest the same. It shows that over all, large funds lost to small funds. This indicates high level of competition. However, an analysis of the competition among different sectors and competition within the sectors provided different results. The sector wise analysis of competition shows that the competition is moderate among the sectors since the value of concentration index lies between 1000 to 1800 (as per Baumol's methodology). Within the sectors, competition is high in the public sector and foreign sector and it has declined in the private sector. This difference in the results on the competition at a more disaggregated level could provide some policy guidelines for improving the state of mutual funds in India. We need a kind of policy, which helps the domestic mutual funds to compete with the foreign mutual funds. The industry now with a large number of funds having different schemes indicating product differentiation seems to be a strategic behavior to withstand competition.

JEL Classification: G19, G23, B21, L10, L16, L20, L25.

Key Words: Financial Sector Liberalization, Mutual Funds, Competition, Concentration, Funds, Schemes, Estimation, Analysis, India**.**

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Introduction

Financial sector liberalization was one of the major reforms, which have taken place in majority of the developing countries in the eighties. The major objectives of financial sector reform were to improve the allocative efficiency of resources and accelerate the growth process of the real sector by removing structural deficiencies affecting the performance of financial institutions and financial markets. Also the main thrust of reforms in the financial sector was on the creation of efficient and stable financial institutions and markets. In response to reforms, the Indian financial sector has undergone radical transformation in the post financial liberalization period. Reforms have altered the organizational structure, ownership pattern and domain of operations of institutions and infused competition in the financial sector.

Coupled with this, there has been increase in the growth of financial institutions like mutual funds in many of the developing nations in recent years. This is also relevant in the Indian context where a large number of mutual funds were started after the financial sector reforms. In the case of financial sector and mutual funds, reforms attempted to create a competitive environment by allowing private sector participation. When the mutual funds industry was liberalized in 1992, the UTI had held a monopoly in the market for almost 30 years. Indian retail investors had been familiarized to guaranteed high returns on their UTI investments. This good record, combined with aggressive marketing by new entrants, led to expectations of high profits by investors who began to invest strongly in the new private mutual funds.

A large number of mutual funds operating in the country has intensified competition and led to product innovation. According to AMFI, presently there are 37 mutual funds including public, private and foreign funds (Joint ventures Indian and Foreign). Product innovation is happening by way of new plans or schemes. Thus from the monopoly of a single mutual fund like UTI, mutual fund industry moved to public with a few public sector funds and has now with the entry of private and foreign funds, it has moved to a competitive environment. Mutual funds presently offer a variety of options to investors such as income funds, balanced funds, liquid funds, gilt funds, index funds, exchange traded funds and sectoral funds etc (Report on Currency and Finance, RBI, 2006). This diversification of funds and schemes may be attributed to the increasing competition among the players. The growth in net resources mobilized by mutual funds in India since their inception, trends of fund mobilization by UTI, private sector and public sector mutual funds, net resource mobilization by different mutual funds within private sector and scheme-wise breakup of resource mobilization are also analyzed. It is observed that after the reforms, mutual funds has increased its resources mobilization especially the private sector and also we can see that the number of mutual funds and its schemes has increased over the years particularly in the private mutual funds.

This background motivated the need to explore more about the Indian scenario of mutual funds and its competitiveness. It clearly shows that the structure of mutual fund industry has changed after commencement of the financial sector reforms in various forms including different types of funds and different schemes for mobilizing resources in the economy. In this context, it looks necessary to analyze competition among the mutual funds in India in the reformed regime. Apart from this, it is necessary to know the pattern of competition existing among different types of mutual funds and within different types of mutual funds as well as for different types of schemes to understand the conduct of the mutual fund industry in India.

This paper has been divided into four sections.

Section 1: Theoretical Underpinnings

Section 2: Methodology and Data

Section 3: Observed Analysis

Section 4: Conclusion

1. Theoretical Propositions

In this paper an attempt is made to discuss the market structure and competition in the context of mutual fund industry in India. Since mutual funds is not an industry and it falls within the domain of financial institutions, it is important to know how theoretically it has been treated as an industry before analyzing competition in the mutual fund industry. Also we need to know about the various concepts related to industry structure, competition and performance while analyzing competition in this particular context.

1.1 Market Structure, Competition and Efficiency

The structure conduct performance (SCP) paradigm has played an influential role in industrial organization research (Bain, 1956; Needham, 1979; Scherer 1980)[2]. The basic idea is that the industrial structure directs the conduct (strategy) of firms in the industry and may influence their performance as well[3]. Most industrial organization studies have been directed towards examining variations in structure, conduct and performance across industries (Scherer, 1980). Later it has been noted that the basic ideas underlying the SCP paradigm can be useful for assessing within-industry competition of crucial importance for the firm's choice of strategy (Caves, 1980; Porter, 1981)[4]. Each factors of this theorem has been explained in detail in the following sections[5].

1.2 Industry Structure

The industry structure can be described by a variety of characteristics such as number of buyers and sellers, their size-distributions, product differentiation, regulations, barriers to entry and exit etc (Scherer, 1980; Porter, 1981). The SCP paradigm implies that structural changes may lead to subsequent changes in industry behavior; industry performance and the ownership patterns of types of organizations etc and such changes can be initiated by governmental interventions[6]. The industrial structure may however change without such interventions in the sense that the creation and adoption of technological innovations can influence firms' performance, which may lead to changing industrial structure. Improved firm performance may lead to higher market shares and elimination of competitors. The entry of new and better performing firms may in a similar way change the industrial structure. Thus industry structure is assumed to

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[2] Bain Joe S first developed the theoretical and empirical work on the SCP paradigm in paper series, 1949, 1950 and 1951. Also Bain suggests that barriers to entry and market concentration are essential to the industry structure and performance

[3] Conduct in the industrial organization may be considered comparable to strategy in the strategic management literature (Caves, 1980).

[4] (Kjell Grønhaug; Tor Fredriksen 1988), In this literature a detailed discussion has been done about the SCP paradigm

[5] The structure, competition and performance are explained separately.

[6] The anti-trust policy in the USA and the multitude of regulations observed in most European and other countries can be seen as devices to influence industry structure, conduct and performance, as well as consumer welfare (Utton, 1970).

influence conduct (strategy) and performance, but changes in conduct (strategy) and performance may change industry structure as well (Scherer 1980).

Also economists seek to measure market structure because theory suggests that it has an important influence on the behavior or performance of firms in the market. The measures are an attempt to link the organization of firms to the degree of competition in a market and hence to predict the departure of price or rate of return from the competitive level. The structure measure used should reflect characteristics of markets that are common elements in a wide variety of market structures. An alternative approach for evaluating structure measures is to focus upon the information they convey about common elements in all market structures. Two such market characteristics are the number of firms in the market and their relative size distribution. While these two characteristics do not completely describe a given market structure, they are the two most important elements in any definition of a structure (Jacquemin, 1972)[7].

The most obvious characteristic of any market structure is the number of participants. If all firms are of equal size one number completely describes the structure. Once it is recognized that firms are not all of the same size, characterization of a market structure by some measure becomes more complex. The distribution of shares among the firms affects behavior and should be reflected in a structure measure. Commonly used market structure measures reflect both the number of firms in the market and their size distribution, but they implicitly assign different weights to them. In this range differences in the relative size of firms and their numbers are most likely to affect the degree of competitiveness. Using different structural measures studies have reached different conclusions concerning the relationship between structure and performance. Also the main elements of market structure are concentration, product differentiation and barriers to entry of new firms (White, 1982).

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[7] Specification of these structural characteristics comes prior to hypotheses about the types of firm behavior in models. The main elements of market structure are concentration, product differentiation and barriers to entry of new firms. Market performance is concerned with the appraisal of the industry's contribution to efficiency.

Baumol et.al (1989) gives a detailed discussion for treating mutual funds as an industry by explaining the features of an industry. On the basis of the number of firms (funds) existing, types of products (Schemes) and conditions to entry, the study has treated mutual funds as an industry. The study has analyzed about the market structure, concentration and performance by using Structure Conduct Performance (SCP) framework in the context of mutual funds.

The presence of entry barriers impedes the optimal flow of resources into an industry. The strongest evidence of the ease of entry that characterizes the mutual fund industry is the remarkable amount of entry that has actually occurred in the form of new funds (Weizsacker, 1980). The backdrop analysis has already established that several structural changes have taken place in the mutual fund industry in India and also that various conditions to competition prevailed.

1.3 Competition and Performance

The presence of more than one firm in an industry or the presence of substitute products offered by firms in other industries implies competition[8]. The various conditions to the competition and features of the different markets in general and particular to the mutual fund industry are clearly mentioned in the literature (Baumol 1982 and Baumol et.al 1989)[9]. In general concentration ratios are widely used for characterizing industrial structures (Utton 1970). The popularity of such measures is easy to grasp[10]. But there is lack of literature pertaining to the field of competition in the mutual fund industry in Indian context. Boumol et.al (1989) has really looked into the aspects of competition among the mutual funds in the context of United Kingdom. Baumol has used concentration measures for analyzing competition. This study has followed Baumol's methodology for estimating competition among the mutual funds in Indian context.

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[8] In order to stay in business, the firm has to cover its costs in the long run. From the individual firm's point of view excess profit is desirable.' Inability to cover all costs in the long run will inevitably force the firm to exit the industry

[9] Baumol et al (1982), Theory of contestable markets, the condition of mobility barriers to the competition were mentioned in the literature of Porter (1980).

[10] They are simple to calculate; they are quantitative; and they convey the impression of 'objectivity'. It is, however, easy to point at several inherent weaknesses (Carter, 1984); for example, the firm may operate in foreign markets as well as in the domestic one. By considering concentration among the domestic producers only (as do most studies applying concentration ratios) the possibility that firms may operate in several markets is overlooked. The mere notion of concentration ratio implies restriction to specific geographical area, such as the domestic market.

It is generally recognized that strong competition is the instrument of market mechanism that ensures good performance. In particular, there are two forms of industry structure (perfect competition and perfect contestability[11]) that constitute theoretical ideals of highly effective competition (Baumol, Panzer and Willig, 1988). Baumol (1989) clearly showed that the changes in the industry concentration would lead to the variations in prices, output, and product quality. The question is that how the structure would enhance competition and the competition will enhance performance or efficiency. In the context of this study, the relevant question is how the structure does matter for the competition. By analyzing competition the study tries to answer this question.

2. Methodological Framework

The present study tries to find out the extent of competition taking place in the mutual fund industry in India. One of objectives of this study is to measure competition among the mutual funds by taking each fund as a firm in the mutual fund industry. To estimate the degree of competition in the mutual fund industry, this study uses a generally accepted measure of concentration - Herfindahl- Hirschman index (HHI), following the methodology proposed by Baumol et.al (1989). In Baumol's study, they have used assets as a variable for measuring competition among the mutual funds. The present study has used Asset under Management (AUM) as a variable for calculating competition [12]. This variable is taken into account for understanding how much assets each mutual fund is holding.

In this study we have taken asset under management as a share of total AUM for each mutual fund as a variable for estimating the concentration. The analysis is done for the period 2003-06 due to the problem of availability of data. These data have been collected from the Association of Mutual Funds in India (AMFI), 2006. As stated earlier this study has used HHI for measuring competition among the mutual funds. This has its own limitation and it gives the only information that whether the competition has increased or not. Also it gives the acquaintance about the extent of competition taking place rather than the nature and intensity of competition. However from the literature it has been

[11] Perfect contestability refers to a case in which, whether firms are large or small, new firms can enter or exit without restriction and without incurring any sunk costs.

[12] Assets under management imply the volume of assets managed by the mutual funds.

seen that to really understand the market structure it is not the change in the firms rank, but the changes in their respective market shares that need to be measured (Gort, 1963). This is because many of changes in rank may be associated with only minor changes in market share while it is possible that large changes in market shares can occur without any change in rank (Curry and George, 1983). In this context, the Grossack (1965) model which satisfies the two requirements of measuring competition and capturing share cutting seems valid for a proper understanding of market structure and competition. So this study uses Grossack model to test the intensity of competition in the Indian mutual fund industry.

2.1 Variable Construction

To estimate the competition among the mutual funds, the market share of each mutual fund in the industry is necessary[13]. In the case of mutual funds, earlier studies have used the assets share as the market share and considered it as the variable for estimating the competition. This study also uses the asset share to total assets as the variable. For the analysis, the study uses 35 mutual funds consisting private sector, Joint ventures both predominantly Indian and predominantly foreign and public sector (Bank-sponsored, financial institution sponsored) funds. The study could not get time series data of assets for all mutual funds due to non-availability of data. So it uses last four years data for the analysis i.e. from 2003-06.

3. The Estimation

For estimating competition we have taken the data on share of assets for each fund in total assets for the period 2003-06. The number of funds from different categories of mutual funds were used for the analysis is given in the Annexure I.

[13] Here market share is the share of assets to the total assets for all mutual funds.

Table 1: Asset Share and Ranks of Different Mutual Funds

No: of Funds	Mutual funds	2003 Share (Rank)	2004 Share (Rank)	2005 Share (Rank)	2006 Share (Rank)
1	UTI Mutual fund	14.8 (1)	12.9 (1)	12.6 (1)	11.7 (1)
2	Prudential ICICI Mutual fund	12.3 (2)	10.6 (2)	10.8 (2)	10.8 (2)
3	Franklin Templeton Mutual fund	12 (3)	10.4 (3)	8.9 (4)	8.0 (5)
4	HDFC Mutual fund	11.9 (4)	9.9 (4)	9.3 (3)	8.9 (4)
5	Birla Sun Life Mutual Fund	7.6 (5)	6.1 (6)	6.2 (6)	5.9 (6)
6	Standard Chartered Mutual fund	7 (6)	5.4 (7)	4.2 (9)	4.2 (8)
7	Reliance Mutual fund	5.8 (7)	7.2 (5)	7.6 (5)	9.5 (3)
8	Kotak Mahindra Mutual fund	3.6 (8)	3.9 (9)	4.0 (10)	4.1 (11)
9	JM Financial Mutual Fund	3.3 (9)	2.2 (15)	2.0 (15)	1.3 (19)
10	SBI Mutual Fund	2.9 (10)	4.0 (8)	4.8 (7)	5.3 (7)
11	LIC Mutual Fund	2.7 (11)	2.9 (14)	2.3 (14)	3.0 (14)
12	HSBC Mutual fund	2.5 (12)	3.8 (10)	4.0 (11)	3.7 (12)
13	Tata Mutual Fund	2.5 (13)	3.7 (11)	4.7 (8)	4.1 (10)
14	Principal Mutual Fund	2.2 (14)	3.3 (13)	3.6 (13)	3.6 (13)
15	IL And FS Mutual Fund	1.7 (15)	0.5 (24)	0.0 (34)	0.0 (33)
16	Deutsche Mutual Fund	1.3 (16)	1.6 (16)	1.6 (16)	1.7 (16)
17	DSP Merril Lynch Mutual Fund	1.3 (17)	3.5 (12)	3.9 (12)	4.2 (9)
18	Morgan Stanley Mutual Fund	1(18)	0.9 (20)	1.0 (21)	1.0 (22)
19	ING Vyasa Mutual Fund	0.9 (19)	1.1 (18)	1.3 (18)	1.3 (18)
20	Canbank Mutual Fund	0.8 (20)	0.6 (22)	1.0 (22)	1.1 (21)
21	DBS Chola Mutual Fund	0.6 (21)	0.8 (21)	0.8 (24)	0.9 (23)
22	Sahara Mutual Fund	0.2 (22)	0.3 (26)	0.2 (26)	0.1 (25)
23	SUN F&C Mutual Fund	0.2 (23)	0.0 (32)	0.0 (30)	0.0 (31)
24	BOB Mutual Fund	0.2 (24)	0.2 (28)	0.1 (28)	0.1 (26)
25	PNB Mutual Fund	0.1 (25)	0.0 (34)	0.0 (31)	0.0 (32)
26	Escorts Mutual Fund	0.1 (26)	0.1 (29)	0.1 (27)	0.1 (28)
27	GIC Mutual Fund	0.1 (27)	0.0 (33)	0.0 (35)	0.0 (35)
28	Taurus Mutual fund	0.1 (28)	0.1 (30)	0.1 (29)	0.1 (27)
29	Fidelity Mutual Fund	0.0 (29)	0.5 (25)	1.1 (20)	1.6 (17)
30	Quntum Mutual fund	0.0 (30)	0.0 (31)	0.0 (32)	0.0 (34)
31	Sundaram BNP Paribas Mutual Fund	0.0 (31)	1.5 (17)	1.5 (17)	1.8 (15)
32	ABN Amro Mutual Funds	0.0 (32)	0.6 (23)	1.2 (19)	1.3 (20)
33	Bench Mark Mutual Fund	0.0 (33)	0.2 (27)	0.9 (23)	0.6 (24)
34	Lotus India Mutual Fund	0.0 (34)	0.0 (35)	0.0 (33)	0.0 (29)
35	Alliance Capital Mutual Fund	0.0 (35)	1.0 (19)	0.3 (25)	0.0 (30)

Source: Authors own Calculation

It is seen from the Table 1 that the large firms still retain market share with slight changes in their ranks. Even though there are small changes in the market shares of funds over the years, there is not much difference in their ranks.

3.1 Measuring Competition

Here we have estimated the four firm concentration ratios for mutual funds by taking the market share of four large firms. The ratio depicted in Table 2 has shown a decline over the years. It was 51 in 2003 and declined to 41 in 2006. The estimated concentration ratio shows decline and this indicates that the competition has increased in the mutual fund industry. It also reveals that, over the years the four large firms still continue to have high market share.

Table 2: Four-Firm Concentration Ratio

Four - Firm Concentration Ratio				
Year	2003	2004	2005	2006
Concentration Ratio	51.0	43.9	41.6	41.0

Source: Authors own Calculation

This conventional measure takes in to account only information about the industry's leading firms. Therefore we have calculated Herfindahl-Hirschman index (HHI) (which is a better measure of industry concentration because it is based upon the information about all firms in the industry) to measure concentration in the mutual funds for 35 funds by using their market shares (assets as percent of total assets) for the year 2003 to 2006. The HHI is calculated by summing the squared market shares of all funds in the market. It ranges on a scale from 0 to 10, 000. The larger the HHI, the more concentrated is the industry or market. An industry with an HHI greater than 1800 is a highly concentrated one. Also an industry with the value of HHI between 1000 and 1800 is moderately concentrated one and one with HHI less than 1000 is unconcentrated (Baumol and Panzar, 1988).

The formula,

$$\mathrm{HHI} = \sum_{i=1}^{n} \left(s_i^2 \right)$$

Where s_i the market is share of firm i in the industry and 'n' is the number of firms.

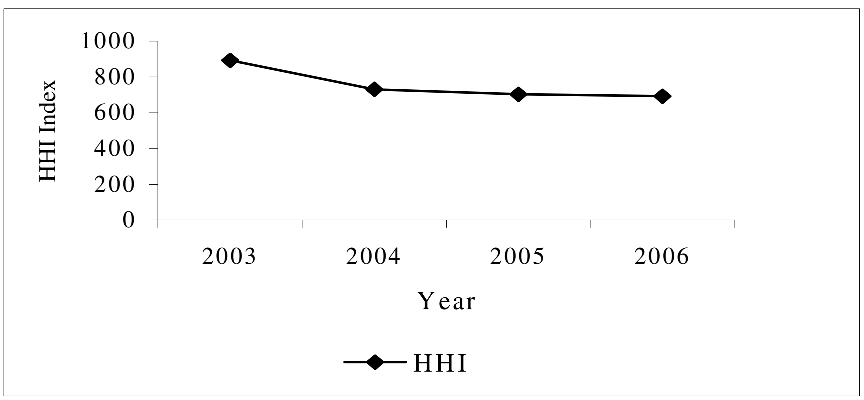
Table 3: HHI for Mutual Funds

Herfindahl-Hirschman Index for all Mutual Funds from 2003-06				
Year	2003	2004	2005	2006
HHI	866	709	682	672

Source: Authors own Calculation

Table 3 presents the HHI values for mutual funds. In 2003, the HHI was 866. By 2006, the index had fallen to 672. It clearly shows that the mutual funds compete in an unconcentrated industry. The low level of concentration in the mutual fund industry is the evidence of the substantial degree of competition among the mutual funds. Also the downward trend in concentration indicates that competition in the mutual fund industry is increasing. The Figure 1 gives the trends in the concentration among the mutual funds. It is a downward sloping curve showing concentration among the funds has declined over the periods. That means competition is increasing.

Figure 1: Trends in Herfindal Index for Mutual Funds



Source: Authors own Estimation

3.2 Normalized HHI

In order to remove the size inequality in the market shares of funds, we have calculated the normalized Herfinhahl index and are shown in the Table 4[14]. The normalized HHI for mutual funds also gives the same results as that of general HHI values. It also shows the decreasing concentration indicating increasing competition. There is not much difference in the value of index.

Table 4: Normalized Herfinhahl Hirshman Index for Mutual Funds from 2003-06

Normalized Herfinhahl - Hirshman Index for Mutual Funds from 2003-06				
Year	2003	2004	2005	2006
HHI	891	730	702	692

To understand whether the rank (position) changes according to their market shares, the study uses the method of rank correlation coefficient. The result shown in Table 5 indicates that the rank correlation coefficient is very high. From this it can be inferred that there is not much difference in the ranks of market share over the years.

Table 5: Rank Correlation Coefficient of Market Shares

Rank Correlation Coefficient of Market Shares					
2003-04	2003-05	2003-06	2004-05	2004-06	2005-06
0.86	0.81	0.80	0.97	0.94	0.98

The method of using HHI index to measure concentration also has its own limitation that it gives only the idea of whether concentration has increased or not. To understand the nature of competition existing we use Grossack model (a model which confines state and dynamic measures). This model would be able to explain whether large firms of some initial years have been able to maintain their market shares up to some terminal year and whether large firms have lost their share to small firms, new entrants or to other large firms. The Grossack model of regression coefficient is obtained by estimating the regression of market shares in the terminal year of all firms on the initial year. Here the initial and terminal year is 2003 and 2006 respectively.

[14] Davies, (1979), Bajo and Salas (2002) gives explanation about this index.

The formula,

$$b = \frac{\sum x_i y_i}{\sum x_i^2}$$

Where x_i, y_i are the deviations of the market share of the i^{th} firm from the mean for the initial year 'x' and terminal year 'y' respectively. Alternatively the regression coefficient can be written as:

$$b = 1 + \sum_i w_i \left(\frac{y_i - x_i}{x_i} \right)$$

$$\text{Where } w_i = \frac{x_i^2}{\sum x_i^2}$$

Thus the regression coefficient will differ from one in an amount and direction that is a function of a weighted average of the relative changes from year X to year Y in the deviations of the firm's market shares from their means. In this average, greater weight is accorded to the firms that are farther from the mean market share in the initial year as indicated by the definition of w.

Table 6: Regression Coefficient for the Market shares of Mutual funds

Regression Coefficient	2003 - 2006
b	0.85

The regression coefficient (b) assumes the value of 0.85. This indicates that the concentration has comedown in the mutual fund industry and competition has increased. The value of regression coefficient (b) is less than one. This indicates that the movement of a firm's share towards the average market share. This implies that the deviation between the firm's market share and average market share is reducing. But the value of 'b' alone will not help to understand the movement of the shares across size classes. To capture this, Grossack devises an ingenious decomposition exercise wherein the regression coefficient is expressed as a product of the correlation coefficient and the concentration ratio. This is an integration of the static and dynamic measure of concentration.

The formula,

$$b = \frac{\sum x_i \; y_i}{\sum x_i^{\,2}} = r * \frac{\sigma_y}{\sigma_x}$$

Where r is the coefficient of correlation of the market shares in the two years, and σ_x and σ_y are the standard deviation of the shares in the respective years.

There are two conditions respect to this dynamic model

If b>1 and the value of r close to unity, then it implies increase in concentration

If b<I three situations can be identified depending on the value of r and concentration ratio.

(1) r is low and concentration ratio equal to 1 implying large firms lost market to each other

(2) r is high and concentration ratio is low implying large firms lost market to small firms

(3) Both low, implying large firms as a group lost market to each other and to small firms.

Table 7: Model Results

Model Result	
Correlation Coefficient (r)	0.92
Concentration Ratio $(\frac{\sigma_y}{\sigma_x})$	0.82
Regression Coefficient (b)	0.75

Here the estimated regression coefficient is 0.75 that is b<1, the estimated correlation coefficient is 0.82, high and the concentration ratio is 0.82, low (< 1). This indicates that large firms lost market to each other and to small firms.

This gives only information on the state of competition regarding over all mutual funds in India. It is interesting to know about the nature of competition happening among the sectors and also within the sectors. For this purpose we have estimated the sector wise competition, competition within the sector and also the scheme wise competition by using Herfinhdal index of concentration.

Table 8: Competition among Different Sectors of Mutual Funds

Year	2003	2004	2005	2006
HHI	1383	1452	1515	1525

As for the competition among the public sector, Indian private sector and joint ventures (both the Indian and foreign) HHI value shown in Table 8 lies between 1000 to 1800, indicating that the sector are moderately concentrated and there exists moderate competition among the sectors for funds.

Table 9: Competition within the Sectors

Sectors	2003	2004	2005	2006
Public sector	235.4	192.9	188.7	175.5
Private Sector	58.4	71.7	77.4	108.8
Joint venture predominantly Indian and predominantly Foreign Funds	217.9	182.4	198.8	192.3

The analysis of concentration within the sector gives a different picture regarding the nature of competition existing within each sector of funds. This is depicted in Table 9. The earlier analysis of competition among all mutual funds shows that the concentration has declined. The analysis of competition within in the sector shows that the concentration in the public sector mutual funds has declined and competition increased. This is also true in the case of joint venture predominantly Indian and predominantly foreign funds. On the other hand the concentration ratio in the private sector mutual funds has increased and this means the competition among the private sector mutual funds has declined. The result is interesting since within the private sector the competition among the funds has declined and the competition has increased within in the joint ventures Indian and foreign funds. Therefore further analysis is needed to know about the competition among the private and foreign funds (predominantly Indian and foreign funds).

Table 10: Competition among the Private and Foreign Funds

Year	2003	2004	2005	2006
HHI	837.9	939.708	1061.25	1075.2

The analysis given in Table 10 shows that the value of concentration index (HHI) exhibits both the characteristics of moderately concentrated and unconcentrated nature of industry. This indicates that both the sectors were unconcentrated with less competition and now there exists moderate concentration with moderate competition among the private and foreign mutual funds (both joint ventures predominantly Indian and predominantly foreign). We next move to the structure wise analysis of competition.

3.3 Scheme wise analysis of competition

The share of net assets to total assets among the type of schemes including income growth, balanced and funds of fund scheme are given in table 11. Among the type of schemes, the share of net assets has declined (79 to 54) for income schemes in 2003-06 and it has increased for growth and balanced schemes.

Table 11: Share of Net Assets by Different types of Mutual Fund Schemes

Schemes	2003-04	2004-05	2005-06
Income/debt oriented schemes	78.5	70.6	53.6
Growth/equity oriented schemes	18.0	25.6	42.7
Balanced schemes	2.9	3.2	3.2
Funds of fund scheme	0.6	0.7	0.4

Source: RBI Annual Report (2005-06)

Here we have calculated the concentration index (HHI) for estimating the competitions among the different types of schemes. We want to know whether the competition among the schemes is increasing or not. The index in Table 12 shows a decline from 0.65 to 0.47, indicating that competition has been increasing among the types of schemes.

Table 12: Herfindahl-Hirschman Index for Different types of Mutual Fund Schemes

Year	2003-04	2004-05	2005-06
HHI	0.65	0.56	0.47

4. Conclusion

This study tries to find out the existing competition in the mutual fund industry in India. It also analyzed the nature of competition among the sectors and within the sectors. Here the study has followed the methodology given by Baumol (1989) and the dynamic model given by Grossack (1965). The major findings show that the concentration has declined and competition increased in the mutual fund industry in terms of both funds and schemes. The regression coefficient for funds indicates that the concentration has declined and the large firms lost their share to small firms. Sector wise (among the public sector, private and foreign sectors and also within sectors) analysis of competition among mutual funds has also being attempted. The result shows that the competition is moderate among the sectors. Within the sectors competition is high in the public sector and foreign sector and it has declined in the private sector. Also at the same time the concentration index has declined and competition increased among the schemes.

Annexure I

Public sector Mutual funds (8 funds)
GIC Mutual Fund
LIC Mutual Fund
IL And FS Mutual Fund
BOB Mutual Fund
Can bank Mutual Fund
PNB Mutual Fund
SBI Mutual Fund
UTI Mutual fund
Private Sector Mutual Funds (5 funds)
Escorts Mutual Fund
JM Financial Mutual Fund
Kotak Mahindra Mutual fund
Reliance Mutual fund
HDFC Mutual fund
Joint venture predominantly Indian and foreign(22 funds)
Alliance Capital Mutual Fund
DSP Merrill Lynch Mutual Fund
ING Vyasa Mutual Fund
Morgan Stanley Mutual Fund
Prudential ICICI Mutual fund
SUN F&C Mutual Fund
Birla Sun Life Mutual Fund
Sundaram BNP Paribas Mutual Fund
Tata Mutual Fund
Taurus Mutual fund
Franklin Templeton Mutual fund
HSBC Mutual fund
Principal Mutual Fund
IL And FS Mutual Fund
Deutsche Mutual Fund
DBS Chola Mutual Fund
Sahara Mutual Fund
Fidelity Mutual Fund
Quntum Mutual fund
ABN Amro Mutual Funds
Bench Mark Mutual Fund
Lotus India Mutual Fund

Source: Pathak (2003)

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