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Emerging Trends in the Operation of Business Groups in India: A Post Reform Period Analysis

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Emerging Trends in the Operation of Business Groups in India: A Post Reform Period Analysis

Beena Saraswathy and Nida Rahman*

[***Abstract***: *This study gives an outline of the current structure of Indian business groups in terms of their presence in the Indian corporate sector. An attempt is made to address important questions like the extent of business group-based firms, their size of the operation, the areas of operation, whether they are entering into areas with high technical intensity, and most importantly whether these firms still control a substantial share of output and profit in the Indian corporate sector. The study observed a declining presence of the group affiliated firms over time. Nevertheless, the smaller number of group-affiliated firms still control a substantial portion of the output and profit share of the Indian corporate sector. The major share of sales is generated by a few firms within the groups. The study suggests the business groups to have a greater potential to create globally competitive manufacturing base in India through their own contributions as well as by creating synergies through strengthening the small and medium enterprises with forward and backward linkages.*]

JEL: L5; L25; L11, L12

Keywords: Regulation and Industrial Policy; Firm Performance; Size Distribution of Firms; Monopolisation Strategies.

I. Introduction

Business groups have been prolifically studied in the context of the concentration of economic power in India, especially in the initial years of the MRTP (Monopolistic and Restrictive Trade Practices) regime. One of the major arguments made by the then

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literature is that the big business groups own a substantial share of assets and income of the Indian corporate sector. The groups own not only business power, but also economic power, which enables them to influence public policy, political power, and administration (Goyal, 1979). However, the seriousness of this discussion diluted with the introduction of liberalisation and the need for national champions to effectively compete with the foreign players both within and outside the domestic market. This was accompanied by drastic changes in the business strategies adopted by the firms. The need for resilient domestic manufacturing capabilities has been recognised, particularly in the context of the unanticipated COVID-19 epidemic, which has led to an increased emphasis on the idea of *Atmanirbhar Bharat*. Given their presence in each and every economic activity, the Indian business groups have a greater potential in fulfilling this target. Meanwhile, there has been an increasing inequality in the ownership of assets and income. In this context, the study, using various indicators, attempts to find out whether the big business groups are still significant in the Indian corporate sector. Specifically, this study examines the structure and pattern of business groups in India in terms of their ownership, size, economic activity, and so on. Before entering into the analysis, we shall briefly discuss the points made by earlier studies.

II. A Look into the Literature on Business Groups

2.1 Business Groups across the World

In order to understand the varying features and characteristics of business groups, a brief review is made of countries such as Japan, South Korea, China, and Chile where business groups have played a prominent role in steering economic growth[1]. Business groups have been a bone of contention across the academia and business world for decades. This contentiousness has emerged from the way its characteristics differ from the other forms of enterprise. Business groups across the world differ in the characteristics and features they exude and thus have been an important topic of study. However, the characteristics and the reasons that led to the rise of business groups in various countries resembled vastly before the breakout of the Second World War. Much of the spurt of business groups in the period prior to 1939 had in its base various kinds of market failure (Miyajima and Kawamoto, 2010). Nevertheless, the unfurling of the Second World War altered the nature and scope of business groups invariably. The success of Japan in the Asian region is attributed to the emergence and constant evolution of business groups, often referred to as "Zaibatsu" in pre-war Japan and "Keiretsu" in post-war Japan (Lincoln and Shimotani, 2010). Much of the economic prominence in Japan has been accorded to the running of Zaibatsu; mostly three prominent Zaibatsus, namely Mitsui group, Mitsubishi group, and Sumitomo group. These three prominent Zaibatsus had similar features at the root of their

[1] Detailed review is available in Saraswathy, B (2021), "Changing Business Group Strategies in India: An Inquiry from the Lens of Mergers and Acquisitions," Report submitted to ICSSR.

operation. They were also run by already incumbent families and saw similar forms of organisational setup and capital, and resembled in ownership characteristics as well. Notwithstanding the Zaibatsu, the 'Keiretsu in post-war Japan differed in a variety of aspects from its predecessor. This difference set it apart from business groups of other countries such as those of South Korea. In analysing the different business groups at various points of time in history, several studies such as by Miyajima and Kawamoto (2010) dig deep into the ownership and diversification strategies and performance of the business groups in pre-war Japan. Lincoln and Shimotani (2010) examined the post-war Japan period; and their analysis centred around the ownership and diversification structure of the Keiretsu, as well on the causes of the decline of the Keiretsu. Choi, Hiraki and Landi (2014) discussed in detail the valuation effects of multinationality of the Japanese firms, Keiretsu.

Business groups in the Republic of Korea have also contributed extensively to its economic terrain. Termed as "Chaebol," the Korean business groups have followed the Japanese business groups in raising the economic purse of the country and led to the Organisation for Economic Cooperation and Development (OECD) membership after Japan. Jumpstarting from the 1960s and gaining strides throughout the early 1990s, Chaebols were regarded as phenomenal in raising the Korean economy to prosperity. However, in the aftermath of the Asian Financial Crisis of 1997, Chaebols were seen with suspicion and were even held responsible for the downturn. The questioning of Chaebols efficacy in running the economy gave impetus to a major reformation of the business groups. The renewed Chaebols now cater to the Korean economy's growth objectives. The resurgence of Chaebol and the reclaiming of its lost vigour has happened at the hands of the country's increased indulgence in research and development and much diversification.[2] Feenstra, Huang, and Hamilton (2003) compared the structures of business groups in South Korea and Taiwan. Business groups in Taiwan are considered to be of small size and confined to the upstream sectors, selling intermediary products to the unaffiliated firms, whereas South Korean Chaebols are vertically integrated and large-sized firms. The authors highlight that there is a difference in the patterns of inheritance and authority in the Korean and Taiwanese economies.

China's business groups gained traction in the 2000s as more and more private ownership in the state-owned enterprises (SOEs) was encouraged by way of reform. Business groups in China have increased in multitudes, and this is also apparent in smaller emerging economies like Thailand in Southeast Asia. The timeline of major national economic events has shaped the form of business groups in each of these countries. Business groups in China share similar characteristics with the business groups in Japan and South Korea. However, one major uniqueness of the large business groups in China is that they do not have a family at the core or apex controlling the entire network of affiliate firms. Instead, the state acts at the apex and exercises its control over the member firms, acting as the

[2] A detailed discussion on Korean Chaebol is available in the study by Kim (2010).

parent enterprise. However, small business groups can have family enterprises at their core or apex, giving them a similar feeling of business groups in other emerging countries. The business groups are also similar to their counterparts in other emerging countries in pursuing diversification (Lee and Kang, 2010). Khanna and Palepu (2000) examined the operation and performance of business groups for the Chilean economy during the period 1988–96. Khanna and Rivkin (2001) extended it to the performance effects of 14 emerging countries' business groups. Performance varies across countries.

2.2 Business Groups in India

Business groups have been extensively studied in the context of the concentration of economic power in India, especially in the initial years of the MRTP regime. As per the Monopoly Inquiry Commission Report 1965, a business group *comprised of all such concerns which are subject to the ultimate and decisive decision making power of the controlling interest in the group-the group master* (p. 34). R K Hazari, who made one of the pioneering studies on business groups, defined the term corporate group as "consisting of units which are subject to the decision making power of a common authority" (Hazari, 1967).3 There may be differences in the degree of power exercised on various units. The group functions as independent unit, irrespective of the fact that each of the corporate units under its control is a separate legal entity. The corporate decisions made by the authority includes not only the prices and profits, but also investment, production, sales, employment, and so on. As per Dutt Committee, a business group or house consists of "those business concerns over which a common authority holds sway." Table 1 shows the criteria adopted by various studies to identify business groups.

Table 1 The Criteria used for Identification of Business Groups in Important Studies/ Reports

Study/Report	*Definition*	*Comments*
Monopolies Inquiry Commission Report (1965)	Affiliation is determined on the basis of (i) shareholding ownership pattern, (ii) nature of management and BoD, and (iii) use of common insignia.	A list of companies prepared based on secondary information and the groups were asked to identify their group companies. Excluded companies jointly owned by more than a group and also the companies with less evidence on affiliation
Hazari, R K (1966)	Consisting of units which are subject to the decision making power of a common authority	1. Controlling power consists of the inner circle (with sole control, with majority share) and an outer circle

[3] Though the Mahalanobis Committee Report came out in 1964, the pre-publication draft of Hazari's study (first edition of that was published in 1966) was available with the Planning Commission ((Goyal, 1979).

Study/Report	*Definition*	*Comments*
		(voice and the material influence but not the controlling voice) 2. Considered more than the 'majority equity concept.'
Industrial Licensing Policy Inquiry Committee (Dutt Committee, 1967)	Limited to the top 20 groups decided by MIC, with Rs 35 crore and above asset size during 1963–64	Effective equity has been used as the base as it found many shareholders are passive and are not using their power. (Effective equity = Total Equity - All categories of passive shareholding)
Monopolies and Restrictive Practices Act, 1969	Group of inter-connected undertakings (GIU) and dominant undertakings (DU)	(i) Undertaking either themselves or along with GIU, asset value >20 crore. (ii) Dominant undertaking with >1 crore or more

Source: Compiled from the concerned study/report and Goyal (1979).

The need for competitiveness has accentuated the pace of business groups where firms do not lose their legal individuality but are tied to a larger group. The inefficacy of the Indian market in terms of its capital market, labour market, and product market gave a nurturing ground to these business groups to flourish. The lacuna created by the imperfect market in India gives momentum to the spread of these business groups, which act as an intermediary for the individual firms' need for easy capital, etc. This form of explanation for the emergence of business groups has taken heed from the transactions cost theory and largely the imperfect market theory. Though the literature finds businesses affiliated to a parent enterprise enriching by way of diversification, in certain scenarios, however, not a considerable variation in performance is found between the affiliated and the unaffiliated businesses. The following table gives a short picture of the performance of Indian business groups based on the studies conducted (Table 2).

Table 2: Selected Studies on Business Groups Diversification and Performance

Study	*Study Period*	*Performance Indicator/ Methodology*	*Observations*
Chaudhuri (1980)	1961 onward	Asset concentration	Asset concentration increased for the top 37 business groups in India
Ghemawat & Khanna (1998)	1990 onward	Industry diversification	Ballarpur Industries and R P Goenka group undergoes restructuring due to policy distortions
Khanna & Palepu (2000)	1993 onward	Tobin's Q and Return on Assets	Unaffiliated firms perform better than the least diversified or intermediately diversified business groups
Khanna & Palepu (2000)	1988–96	Return on Assets, sales, group	A significant and positive influence of group membership,

Study	*Study Period*	*Performance Indicator/ Methodology*	*Observations*
		diversification, group membership	diversification on ROA (Return on Assets)
Khanna & Rivkin (2001)	1989–1999	ROA	Business group affiliation influence firms performance positively and significantly
Khanna & Yefeh (2007)	1988–97	ROA	Capital market inefficiencies, financial market inefficiencies, and judicial inefficiencies all exert influence on the existence and emergence of business groups
Majumdar & Sen (2007)	1988–93	Debt to equity ratio, group affiliation, state ownership, the share of director's ownership, top 20 shareholder's ownership, etc.	Affiliated firms tend to get more borrowing from secured sources than unsecured ones and this supports the rent-seeking theory of the existence of business groups
Ghosh (2010)	1996–2006	Adjusted Q, ROA, stock prices, sales, leverage, Debt to Assets Ratio, R&D to Assets ratio, sales, annual growth of sales	Affiliated firms display higher valuation than standalone firms but are less profitable than the standalone firms
Lamin (2013)	1995–99; 2000–02	Export to sales ratio, industry segment	Before deregulation, group diversification did not positively impact international expansion but after de-regulation, the impact was prominent
Gupta (2010)	1951–1989	Asset concentration	For the top 20 business groups in India, the asset concentration as a percent of Gross Fixed Capital Formation hung amid 26.6 percent and 32.5 percent
Kumar, Gaur, & Pattnaik (2012)	2001–2008	Export to total sales ratio	Business groups with large technological resources see significant international expansion despite being highly diversified in their product lines

Source: Compiled from various studies.

III. Data and Methodology

To assess the significance of big business groups, we have used the data given by PROWESS IQ, Centre for Monitoring Indian Economy (CMIE). PROWESS reports the top 50 business group's data as well as the large business group's data. It is to be mentioned that the data on business groups is difficult to arrive at from formal sources since, generally, the groups do not disclose all the firms directly and indirectly controlled by them. This issue has been discussed in the studies undertaken in the early 1970s and 1980s. We have also tried to generate a list of affiliated companies for the top 50 business groups based on individual company websites and other secondary information. However, the coverage of PROWESS is found to be greater than the list generated by us.

Another alternative is to use the Ministry of Corporate Affairs (MCA) data for each of the firms, which is also not feasible.[4] PROWESS provides data from 1988–89 onwards, which allows a time series database. In light of all these, we have adhered to the PROWESS database. The study covers data from 1989–90 to 2017–18. We have omitted the data for the latest year since the coverage is poor for many firms. Major variables used for the analysis are the number of affiliated companies, the value of assets, sales, and profit. Technological intensity is assessed using OECD classification.

Studies generally accept the fact that economic power is difficult to capture comprehensively. However, various tools can be employed to measure the extent of economic power to a certain degree. Earlier, Hazari (1968) had made an attempt to measure concentration in the private corporate sector using the share capital, net fixed assets, net capital stock, and gross capital stock. MIC adopted Hazari's methodology. Chaudhuri (1975) used the following indicators to measure the concentration of economic power: (i) firm size, (ii) share of large companies in paid-up capital of non-government companies, (iii) concentration in the ownership of share capital, (iv) multiple directorships, and (v) concentration of control through assets concentration and inter-corporate investment. Goyal (1979) also discussed these issues in detail and employed the paid-up capital, assets, and turnover while assessing the issue.[5]

The following indicators are used in this study to examine the possibility of concentrated ownership of assets in the hands of few business groups: (i) total assets, (ii) sales turnover,

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[4] This involves an enormous amount of work since the MCA does not have any database like CMIE data and each firm's data has to be compiled, which makes the data for top 50 business groups a challenging task. It is to be noted that the studies which use MCA data, cover only a selected few years due to this difficulty.

[5] Mazumdar (2008) identified that in a joint-stock company or a corporation, ownership has two meanings. One is the ownership *of* companies which are vested in their shareholders and the second is the ownership *by* companies of corporate assets. Therefore, the concentrated distribution pattern can be identified by capturing (i) the distribution pattern of ownership of companies, and (ii) the distribution of corporate assets among firms.

and (iii) profit held by big business groups. In order to understand the contribution in output and profit, the share of assets, sales, and profit belonging to various categories of ownership are decomposed into (i) top 50 business groups, (ii) other groups, and (iii) standalone Indian private firms. The details are discussed in appropriate sections. We shall explain below the major observations from the data analysis.

IV. Major Observations based on the Descriptive Statistical Analysis

4.1 Pattern of Operation of Business Groups

Out of the total 48916 firms registered with PROWESS, 72 percent are classified as private Indian, which comprises 35286 firms in numbers. Out of these, the number of private foreign firms and joint sector firms which consist of the public-private partnership firms is 1426 and 37 respectively. Another 13 firms (0.02 percent of all firms) are categorised as NRI owned. Together these three categories constitute 1476 firms, i.e. three percent. We have excluded these 1476 firms from further analysis to concentrate only on the domestic corporate sector firms. The rest of the firms are classified as owned by business groups, which comprise 12154 firms, i.e. 25 percent of all firms. Amongst these, PROWESS classified the top 50 business groups affiliated companies as top 50 groups' affiliates, which comprise 3667 firms, i.e. 7.5 percent of the total, and the rest, i.e. 8487 firms (17.4 percent) are associated with other large business groups (see Table 3).

Table 3: Ownership Structure of Firms in the Corporate Sector based on Entry (%)

SN.	*Category*	*Pre 1950*	*1950 to 1970*	*1971 to 1990*	*1991 to 2000*	*2001 to 2010*	*2011 to 2018*	*NA*	*All*
1	Pvt Indian	58.3	58.0	75.5	78.4	67.0	67.5	56.1	72.1
2	Pvt foreign	3.8	4.2	2.3	4.0	1.9	2.9	17.1	2.9
3	State & central with pvt	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1
4	NRI	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
5	*Group All*	*37.8*	*37.8*	*22.1*	*17.5*	*31.0*	*29.6*	*26.8*	*24.8*
6	*Top 50 group*	*18.1*	*14.1*	*6.7*	*5.6*	*7.9*	*9.5*	*11.4*	*7.5*
7	Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Grand Total (Number)	*1425*	*1527*	*11971*	*15461*	*14511*	*3898*	*123*	*48916*

Source: Calculated using PROWESS, CMIE database.

A sharp decline is noted in the share of business group firms after the 1970s. This is applicable to both the top 50 groups and other large business groups. In order to understand this issue better, the study classified the firms into six groups based on the year

of incorporation, i.e. (i) firms which incorporated before the 1950s, (ii) from 1951 to 1970, (iii) from 1971 to 1990, (iv) from 1991 to 2000, (v) from 2001 to 2010, and (vi) 2011 to 2018. A major portion of the firms registered before the 1950s were group affiliated. It is observed that 38 percent of the firms were controlled by business groups. Out of these, 18 percent were related to the top 50 groups as covered by the PROWESS database (see Table 2). Similar is the structure of all business groups till the period 1950–70. The presence of these firms witnessed a sharp fall in the next 30 years and reached 22 percent in 1990 and further to 17.5 percent in 2000. The first part of this is the period of implementation of the MRTP regime. From there, the share of group firms increased to 31 percent from 2001 to 2010 and during the last phase, it was around 25 percent. This recovery trend is not much visible in the case of the top 50 groups as identified by the PROWESS database, which registered a continuously declining trend till the period 2001–10, from 18 to eight percent. Thereafter, it registered a slightly increasing trend to 9.5 percent. What is happening is the entry and expansion of the new groups within the group owned firms and the standalone companies in the case of other private sector firms.

The next question is, Where are these firms entering? Are they entering into the small business operations or big business? Definition of size factor is important in this regard. PROWESS classified firms into different deciles based on the three-year average of total income and total assets. This takes care of the limitations of using assets and sales. Though sales is a good indicator, it is exposed to the business cycles and company-specific events. Hence, high or low sales in a year seldom represent the size of the firm. Similarly, assets are influenced by the value of depreciation since the total assets are the sum of the different historical values of various components of assets. Companies use different methods for valuation of depreciation. Moreover, in large labour-intensive companies, asset size may be smaller. This also makes the assets less representative of the size of the company. Hence, the study uses a combination of sales and assets as a better indicator of the size of the company. The three-year average value of sales and assets are further classified according to the standard deciles classification, of which the first decile comprises the top firms and the 10th decile is the lowest. Further, these deciles are converted into three categories to represent the size factor with much more clarity. The first three deciles are classified as large, deciles four to seven as medium, and the rest as small-sized firms. The results of this analysis are presented in Table 4.

This analysis shows that, in general, only 28 percent of the group-affiliated firms are entering into the large-sized category and others are entering into the medium- or lower-sized categories. Whereas 34 percent of the top 50 group firms are entering into the large/top category (Table 4), the remaining 66 percent belong to the medium- and small-sized businesses. However, what is more interesting is to note that a significant portion of the group-affiliated firms were entering into the large size category till 1970. The incidence of this was 49 percent for both categories of firms, i.e. the top 50 groups and other group-affiliated firms during the period 1950 to 1970. This gradually came down to 16 percent during the latest phase (i.e. 2011–2018) for top 50 group firms and 15 percent for other

Table 4: Entry of Firms According to the Size and Ownership Category (in percent)

Category	*Pre 1950*	*1950 to 1970*	*1971 to 1990*	*1991 to 2000*	*2001 to 2010*	*2011 to 2018*	*NA*	*Overall*
Group all								
Large	46.6	48.5	33.0	32.2	21.4	15.2	21.2	28.1
Medium	36.4	32.8	36.7	36.0	33.1	32.8	33.3	34.6
Small	15.4	15.9	28.6	31.0	44.9	50.7	33.3	36.1
Gross	98.3	97.2	98.2	99.2	99.4	98.7	87.9	98.8
Gross (Number)	530	561	2599	2680	4472	1137	29	12008
Top 50 Groups								
Large	51.2	49.3	36.3	36.2	29.9	15.9	28.6	34.0
Medium	32.9	34.0	33.1	36.0	34.7	34.8	21.4	34.4
Small	14.7	13.0	28.4	27.4	34.7	48.0	42.9	30.3
Gross	98.8	96.3	97.8	99.5	99.2	98.7	92.9	98.7
Gross (No.)	255	207	786	855	1133	366	13	3615
Standalone-Pvt Indian								
Large	17.6	20.5	14.4	15.1	19.5	8.3	14.5	15.8
Medium	43.3	47.7	43.2	44.1	49.3	37.8	26.1	44.8
Small	37.8	30.2	39.2	38.7	30.3	51.6	21.7	37.2
Gross	98.7	98.3	96.8	97.9	99.1	97.7	62.3	97.9
Gross (No.)	820	870	8747	11864	9633	2570	43	34547

Source: Calculated using PROWESS, CMIE database.

Note: Percent total may not match to 100 in some cases due to the non-availability of data.

group firms. This decline clearly shows the implementation of the MRTP Act and other regulatory changes that occurred during the 1970s. When we compare these results with the non-group-affiliated firms, i.e. standalone firms in the Indian corporate sector, it is evident that the frequency of firms entering the large size category is less than that of the group-affiliated firms. Only 16 percent of these firms entering the large size category compared to the 28 percent for all groups and 34 percent top 50 group-affiliated firms. Here the majority of the firms are engaged in medium-sized business. However, if we go by the recent trends (i.e. 2011–2018), more than 50 percent of them are entering into the small business. In this category also there has been a decline in the entry into the top category after 1970. However, this trend reversed and showed an increasing trend till 2010 and reached 19.5 percent, which started declining afterward and reached eight percent in 2011–2018 period. In short, the data reveals that, in general, the incidence of top 50 firms entering into large-scale business is much higher compared to all group-affiliated firms.

Further, the entry of non-group firms into large-scale business is much less than that of the group-affiliated firms. However, the incidence of business groups entering into large-scale business has been coming down since the 1970s. And now, it is just around 15 percent, which basically shows their greater involvement in the small- and medium-sized businesses.

4.1.1 Are they Investing in Technology Intensive Industries?

The next issue addressed in the study is the presence of group-affiliated firms in technology-oriented industries compared to other firms. This is important because these firms are capable to invest in high-tech sectors compared to standalone firms. In order to assess this, we have used the technology intensity classification of manufacturing industries worked out by the OECD Directorate for Science, Technology, and Industry in July 2011, which categorised technological intensity into four, i.e. high, medium-high, medium-low, and low. We have classified the firms into these categories based on the respective NIC (National Industrial Classification) code and product profile. The observations from this are discussed below.

It is observed that irrespective of the group affiliation, firms are investing more in medium and low-tech businesses. More than 70 percent of the firms are engaged in low-tech or medium low-tech businesses for both group and non-group firms. Within this, around 40 percent of the firms are engaged in low-tech business in both these categories. In other segments also, there is no substantial difference in the pattern (Table 4). When these figures are disaggregated for the top 50 and other groups, a similar trend of medium-low and low-tech domination is visible. However, in the medium high-tech business, the presence of top 50 group firms is 23 percent, whereas that of other groups is only 16 percent. The top 50 group firms' presence in the low-tech business is 37 percent and that of other groups is 42 percent (Table 5). The investment in high-tech business is very low for all categories of firms. In the medium high-tech business, the presence of top 50 group firms is comparatively higher than that of other categories. Only eight percent of the firms are generating sales from high-tech business. Here the private Indian standalone firms are a little ahead of the group-based firms. The study also explored the sectoral details of the investment. Before discussing that, it is important to mention that the above figures are based on the number of firms. In terms of the amount of investment across various categories, there may be differences in this. The pattern of income generated from these activities may also be different. To understand this, an assessment of asset and sales-based patterns across various technological categories has been carried out.

In terms of investment in assets and the sales generated, the dominance of low-tech and medium low-tech categories is visible. Nevertheless, the engagement in medium high-tech business is higher than that revealed from the number based analysis and the presence in the low-tech business is comparatively less than what is visible from the number based analysis. To illustrate, the value of assets in the high-tech business for three categories of

firms, i.e. top 50, other group firms, and the standalone private Indian firms are 15, 17, and two percent and the corresponding sales generated are one, 14, and 11 respectively (Appendix Table 1). This shows that the sales generation is not much from the high-tech categories when the amount of investment in assets and the number of firms engaged are taken into account. For the medium high-tech category, the top 50 firms generate more sales compared to the other categories of firms. Here, the sales generated is 36 percent while comparing the value of assets of 22 percent. For other categories of firms, the income generated is slightly less than that of their investment in assets. In the case of medium low-tech business, this pattern can be seen for both the top 50 and the other group based firms. Here the top 50 firms' value of assets is only 32 percent and revenue generation is 40 percent. Similar figures for the other group-based firms are 29 percent investment and 30 percent revenue generation. Here the standalone private Indian firms' investment figures are 49 percent while the sales generation is only 32 percent. Opposite trends are visible in the case of low-tech business, where the top 50 firms' investments are 28 percent while revenue generation is only 18 percent. For the other two categories of firms, revenue generation from low-tech business is much higher than their corresponding investment. Thus, it can be said that the top 50 firms are generating their sales mainly from medium high-tech and low-tech businesses, while the other two categories are mainly involved in the medium low-tech and the low-tech businesses.

Table 5: Technological Intensity across Ownership Categories in the Manufacturing Sector

OECD Tech classif.	*Number*					*Share (%)*				
	Top 50	*Other Group*	*Group all*	*Private (Indian)*	*Grand Total*	*Top 50*	*Other Group*	*Group all*	*Private (Indian)*	*Grand Total*
High	61	184	245	1047	1292	5.3	7.8	7.0	8.2	7.9
Medium High	268	369	637	2021	2658	23.3	15.7	18.2	15.8	16.3
Medium Low	328	704	1032	4239	5271	28.5	29.9	29.4	33.1	32.3
Low tech	432	991	1423	5110	6533	37.5	42.1	40.6	39.9	40.1
NA	62	106	168	390	558	5.4	4.5	4.8	3.0	3.4
Grand Total	1151	2354	3505	12807	16312	100.0	100.0	100.0	100.0	100.0

Source: Calculated based on OECD Classification from PROWESS, CMIE.

The study has also portrayed the trends in sales and assets across various periods, which, in general, is showing only minor variations over time. A notable difference is the increasing trends in the share of sales generated from high-tech and medium high-tech sales by the other groups over the years. In terms of assets, too, the investment in the high-tech sector is increasing (Appendix Tables 2 & 3).

While assessing sectoral characteristics, it is observed that both the group and private Indian firms are mostly engaged in service sector activities and the presence in the

manufacturing sector is only the rest. Needless to say, the engagement in the primary sector is too little. Among the group-affiliated firms, 70 percent are engaged in service sector activities and the presence in the manufacturing sector is only 28 percent. In the primary sector, only one percent of firms are engaged. Another one percent is counted in 'other' activities. In the case of standalone private sector firms, the engagement in the manufacturing sector is a little more than that of group-based firms. Here, 34 percent are engaged in the manufacturing sector and 62 percent in the service sector.

Within the manufacturing sector, other manufacturing and diversified constitute around five percent (Table 6), which is not used for technological intensity classification. Under the high-tech category, only in the pharmaceutical sector, group-affiliated firms are engaged in not less than one percent of their business. Out of this, only 0.7 percent belong to the top 50 business groups. In all other sub-sectors, the presence is very low. This scenario is not much different for standalone private Indian firms, whose highest share is two percent for the pharmaceutical sector under this category. Aircraft and spacecraft is one area where group-based firms are contributing more than the individual firms. However, only a few firms are operational here. In general, less than three percent of the firms are engaged in business with high-medium technological intensity. This is similar for private Indian standalone firms except for motor vehicles trailer and semi-trailer for which the presence of top 50 group-affiliated firms is more than that of the other groups and also private Indian standalone firms. Textile is one sector where around four percent of the firms belong to the manufacturing sector .

In order to understand the real size of the business of these firms across various sectors, we have further analysed the sales turnover-wise engagement in various categories of firms. It is observed from the previous analysis that in number terms, the service sector constituted around 60 to 70 percent of the three categories of firms (Appendix Table 4). In terms of revenue generated, though the service sector dominates, the value attached is low when compared with the respective number-based results. For the top 50 group firms, the sales generated from the service sector is 62 percent, for other group firms and the standalone private Indian, the respective figures are 54 and 56 percent. Hence, the contribution from manufacturing is comparatively higher than that revealed from the earlier number based analysis. The share of the top 50 firms from number-based analysis is 27 percent while that of sales-based analysis is 37 percent. For other group firms and private Indian firms, these figures are much higher, i.e. 44 and 42 percent compared to the corresponding number-based 30 and 36 percent. Hence we can say that smaller number of group firms constitute a major portion of the sales turnover of the manufacturing sector besides that of the service sector.

Table 6: Economic Activity According to Ownership Structure (in percent)

Tech level	*Sector*	*Top 50*	*Other Group*	*Group all*	*Private (Indian)*
1	Pharmaceutical	0.7	1.6	1.3	1.9
1	Medical, Precision and Optical Instruments	0.2	0.3	0.3	0.6
1	Office, Accounting and Computing Machinery	0.3	0.2	0.2	0.2
1	Radio, TV and Communication Equipment	0.4	0.2	0.2	0.2
1	Aircraft and Spacecraft	0.1	0	0	0
2	Chemicals	3	2.9	3	3.4
2	Electrical Equipment and Apparatus	2	1	1.3	0.6
2	Machinery	2.8	1.2	1.7	2.1
2	Automobiles	2.5	1.4	1.7	1.5
3	Basic Metals	2.3	2.1	2.2	3.8
3	Fabricated Metal Products	0.7	0.5	0.6	1.3
3	Rubber & Plastics	1.2	1.1	1.1	2.1
3	Non-metallic Minerals	1.5	1.6	1.6	1.2
3	Coke and Refined Petroleum	0.3	0.2	0.2	0.3
4	Textiles	2.7	3.2	3	4.2
4	Food, Beverages and Tobacco	3.7	3.1	3.3	3.9
4	Leather & Footwear	0.2	0.2	0.2	0.4
4	Paper & Paper Products	0.2	0.5	0.4	1.1
4	Wood & Wood Products	0.2	0.2	0.2	0.4
4	Printing and Publishing	0.1	0.1	0.1	0.1
	Other Manufacturing	4.8	4.7	4.7	4.4
	Diversified Manufacturing	0.5	0.3	0.3	0.2
	Manufacturing All	**30**	**26**	**28**	**34**
	Primary	**1**	**1.1**	**1.1**	**2**
	Service	**67.6**	**70.7**	**69.7**	**61.6**
	Diversified	1.2	1	1.1	0.9
	Other	0	0	0	0.1
	Grand Total	100	100	100	100

Source: Calculated based on the OECD classification using PROWESS database, CMIE.

Note: (i) Tech level is defined as per the OECD classification as discussed in the text. In table, 1 denotes high, 2 denotes medium high, 3 as medium low, and 4 denotes low-tech. (ii) Total shares may not add up to a Hundred percent in some cases due to the non-availability of data.

Within the high-tech sectors, pharmaceutical remained the major revenue source, especially for the other groups (five percent) and private Indian firms (four percent). It is

important to mention that the presence of top 50 groups in the pharmaceutical sector is less. Among the medium high-tech sectors, the automobile sector (eight percent) remained the second-highest source of revenue for the top 50 group firms, while for other groups it was chemicals (six percent). For private Indian firms, both chemicals and electrical machinery contributed four percent sales share each. In the medium low-tech category, basic metals is one of the major contributors to all three categories of firms. For the top 50 group firms and the private Indian firms, the manufacturing sector, too, is the highest sales contributor. The corresponding contribution is nine percent and 5.4 percent. In the low-tech sector, the presence of top 50 group firms is mainly in the food and beverages sector (three percent) and that of other groups is also in the same sector with seven percent. Here, textile also contributes four percent of the sales revenue. For private Indian firms, in this category also, the food sector is a major contributor, accounting for four percent. For these firms also, textile contributes four percent of sales revenue (Appendix Table 4).

Hence, based on the number- and sales-based analysis, it can be observed that not only do the top 50 group firms depend highly on the service sector, but also the other two groups generate their major sales share from the service sector. Top groups generate only 37 percent of their revenue from manufacturing activities. Within that, basic metals and automobiles are the major contributors. Sales generated from high-tech sectors are very low. The pharmaceutical sector is the major high-tech activity undertaken by the other groups and private Indian firms. Food and beverages, chemicals, basic metals, etc., are the major contributors to the other group and private Indian firms. Hence, the study shows that the top group firms mainly concentrate on the medium high-tech business while the others depend on both the medium low-tech and medium high-tech to a certain extent within the manufacturing sector.

As discussed earlier, the major share of firms is engaged in the service sector, which constitute around 60 to 70 percent of the group-based firms in terms of number, and in terms of sales value, it ranges between 54 to 62 percent for the three categories of firms. The study further examined the areas in which these firms are concentrated within the service sector. It is observed that the top 50 firms mainly engage in software services (42 percent) and a good proportion of the sales are generated from trading (18 percent) and financial services (15 percent). For other groups and private Indian firms, trading and financial services are the major areas of operation. The share of these two segments is 29 and 22 percent respectively for the other groups, and 27 percent each for the private Indian firms. Another eight percent of the sales revenue is coming from real estate activities for the other groups and four percent for the private Indian group firms (Table 7). For the top 50 group firms, real estate is less than two percent only. Hence, it can be concluded that the top firms are generating a good portion of their income from business segments such as trading, real estate, and financial services.

Table 7: Service Sector Disaggregated (based on Sales)

Top 50	*Share (%)*	*Other groups*	*Share (%)*	*Private Indian*	*Share (%)*
Electricity Power, Water	5.4	Construction	5.7	Construction	6.3
Financial Services except Insurance & Pension	14.8	Electricity Power, Water	7.6	Financial Services except Insurance & Pension	27.4
Software Services	42.3	Financial Services except Insurance & Pension	22.0	Real Estate	4.1
Telecommunication & Internet	4.9	Real Estate	8.5	Trading	27.4
Trading	18.1	Telecommunication & Internet	6.3	Others	34.8
Others	14.6	Trading	29.3	Total	100
		Others	20.7		
Total	100		100		

Source: Calculated based on PROWESS database, CMIE.

From this analysis, it is clear that the big business in India is mainly generating their revenue from the low-tech and medium-tech businesses. Besides, the major chunk of their investment goes to the service sector. The current contribution of the manufacturing sector to India's gross value added is 29.6 percent (Economic Survey, 2020). Going by the lesser engagement of big business and the standalone firms in manufacturing activities, such an output share may be treated as a positive indicator.

4.2 Output and Profit Controlled by Business Groups

The next issue is whether the group-affiliated firms are still controlling the business, irrespective of the declining presence in large business over the years. To understand this, we have decomposed the share of assets, sales, and profit belonging to various categories of ownership such as (i) top 50 business groups, (ii) other groups, and (iii) standalone Indian private firms. The major observations from this are the following.

Before getting into the recent trends, let us see the estimates of total assets made by various pioneering studies on Indian business groups. Table 8 shows the growth of assets held by the top 20 business houses across various time periods. It can be seen from the table that there has been a high growth of assets held by the top firms when comparing two time periods, 1967–68 over 1963–64. The highest growth is registered for Birla at that time, followed by Tata and Mafatlal, and it was also seen that the growth of Birla was much faster than that of Tata at that time (Chaudhuri, 1975).

Table 8: Total Assets of the Top 20 Business Groups (1958–1968)

		(Rs. Crores)					
SlNo.	*Group*	*Hazari, 1958*	*MIC 1963-64*	*ILPIC (Dutt) 1966*	*Dutta, B (1967-68)*	*% change in assets (1967-68 over 1963-64)*	*% share of groups in the increase (all 20 houses)*
1	Tata	223	418	505	585	40.0	17.1
2	Birla	113	293	458	576	96.6	29.1
3	Martin Burn	73	150	153	174	16.5	2.5
4	Bangur	27	78	104	125	60.3	4.8
5	ACC		77	90	106	36.8	2.9
6	Thapar	20	72	99	103	43.7	3.2
7	Sahu Jain	55	68	59	80	17.5	1.2
8	Bird-Heilgers	23	60	69	79	30.8	1.9
9	JK Singhania	17	59	67	79	33.0	2.0
10	Surajmull Nagarmull		57	96	107	87.2	5.1
11	Walchand	13	55	81	86	56.3	3.2
12	Shri Ram	20	55	74	107	96.4	5.4
13	Scindia		47	56	65	40.2	1.9
14	Goenka		47	65	66	39.6	1.9
15	Mafatlal	11	46	93	136	195.9	9.2
16	Sarabhai		43	57	73	68.2	3.0
17	Andrew Yule	17	42	47	54	29.2	1.3
18	Killick		42	51	62	49.6	2.1
19	ICI		37	50	51	38.5	1.5
20	Kilachand		35	37	40	13.1	0.5
	All Houses		1780	2310	2753	54.7	100.0

Source: Growth of Indian Monopoly, AITUC Publication, 1972; as in Chaudhuri (1975), pp. 37.

Goyal (1979) examined the ownership of assets held by the top 20 groups in the private corporate sector for the period 1975 over 1969. The study found that out of the total assets held by the private corporate sector, the top 20 groups constituted 25 percent shares.[6] This has grown up to 35 percent in the year 1975, which clearly brings out the increased assets concentration during the six-year period, which also coincides with the initial MRTP regime (Table 9).

Table 9: Relative Share of Top 20 Houses in Private Corporate Sector (1969 &1975)

Year	*Assets of the Sector (Rs. crores)*	*Assets of Top 20 house (Sachar Committee, in Rs. crores)*	*% share of the House*
1969	9670	2431	25.1
1975	12835	4465	34.8

Source: Goyal (1979), pp. 52.

[6] The study used Sachar Committee Report for the data for top 20 groups.

We have examined the relative share of ownership of assets and other indicators in this backdrop. It is seen that there has been a drastic acceleration in the value of assets across all categories of firms from the mid-2000s (Table 10, Figures 1 and 2). The assets of the group-affiliated firms remain much higher than that of the private Indian standalone firms. Group-affiliated firms still control most of the assets share. In 2018, only 36 percent of the assets share belonged to non-group firms, i.e. standalone firms. The rest, i.e. 64 percent, belonged to the group-affiliated firms. Unlike the trends in number-wise estimates, the asset share of the group-affiliated firms has been increasing over time. In 1990, 44 percent was owned by the non-group firms, which declined to 36 in 2018. And the share of group-affiliated firms, increased to 64 percent in 2018 from 56 percent in 1990. In this regard, the Monopoly Inquiry Commission Report (1965) found that the asset share of 75 groups studied by MIC in all non-government and non-banking companies was 47 percent. An identical comparison with MIC figures is not carried out since we are not separating the banking sector and also due to substantial changes in the structure of business groups that occurred over time. Now, the group-affiliated companies own 64 percent of the total assets, which is much higher than the MIC figures in a crude sense. What is more interesting is the declining presence of the top 50 group firms within the group-affiliated firm's assets. The share of the top 50 firms was 35 in 1990, which declined to 25 percent in 2018, which indirectly indicates the emergence of new groups within the group-affiliated firms.

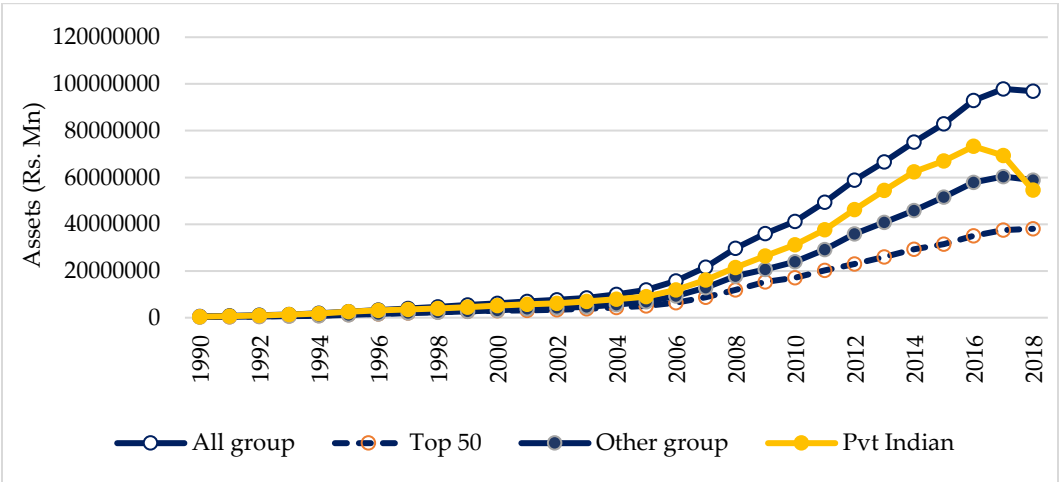
Table 10: Composition of Assets across Ownership Categories

	(in percent)			
Year	*Top 50*	*Other groups*	*Pvt Indian*	*Group total*
1990	35	21	44	56
1991	31	24	45	55
1992	30	24	46	54
1993	28	23	49	51
1994	27	23	49	51
1995	26	24	50	50
1996	26	25	49	51
1997	26	26	47	53
1998	27	27	46	54
1999	28	27	46	54
2000	26	28	46	54
2001	25	30	45	55
2002	25	31	44	56
2003	25	30	45	55
2004	24	32	44	56
2005	24	33	43	57
2006	23	34	43	57
2007	23	34	43	57
2008	23	35	42	58
2009	25	33	42	58
2010	24	33	43	57

	(in percent)			
Year	*Top 50*	*Other groups*	*Pvt Indian*	*Group total*
2011	23	34	43	57
2012	22	34	44	56
2013	21	34	45	55
2014	21	33	45	55
2015	21	34	45	55
2016	21	35	44	56
2017	22	36	41	59
2018	25	39	36	64

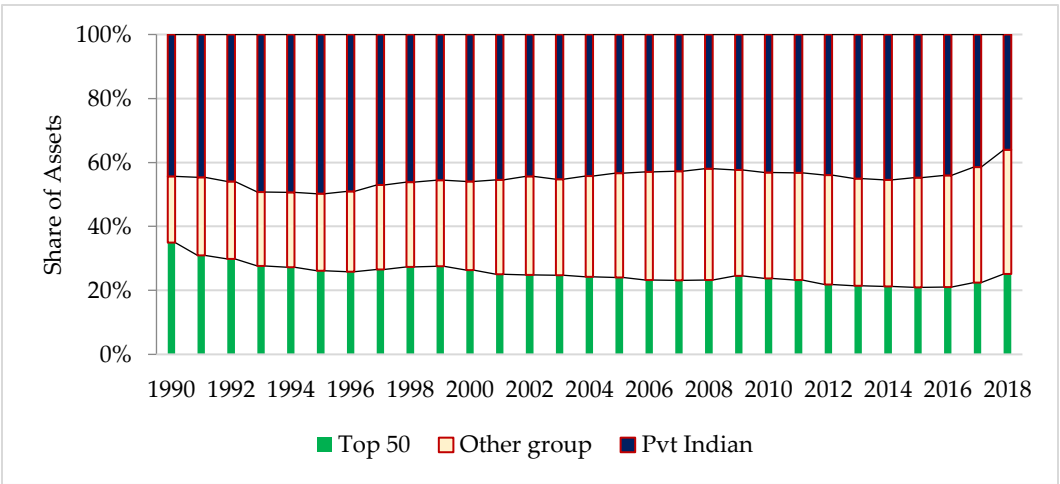
Source: Calculated based on PROWESS Database, CMIE.

Figure 1: Assets across ownership categories



Source: Calculated using PROWESS database, CMIE.

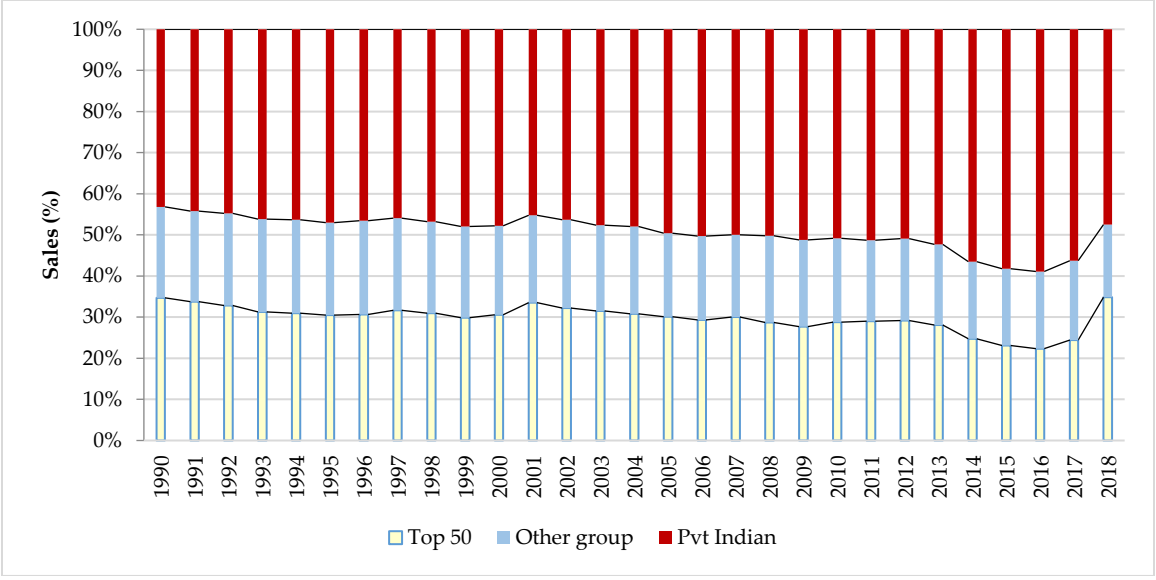
Figure 2: Composition of Assets across Ownership Categories



Source: Calculated using PROWESS database, CMIE.

The next question is whether the smaller number of group-affiliated companies control the output share? This is captured by analysing the composition of sales. A similar increasing trend in the value of sales is visible from the mid-2000s for all categories of firms. In general, there has been mild domination of group-affiliated firms over other private Indian standalone firms till the mid-2000s; afterwards, this trend is vanquished by the private Indian standalone firms. Nevertheless, what is more important is that a substantial share of the corporate sector output is still controlled by the group-affiliated firms. To illustrate, in 2018, around 52 percent of sales belonged to the business groups affiliated companies and that of standalone companies was only 48 percent. Though there has been a decline in the share of sales, the contribution remained more than 50 percent in most of the years (Figure 3, Appendix Table 5, and Appendix Figure 2). A notable decline in this occurred during the 2014 to 2017 period. During this period, the contribution from both the top 50 affiliated companies and the other groups declined. The share of the top 50 remained at 35 percent in 1990 and 2018; however, in some years there were fluctuations. There has been a decline in the contribution of other group-affiliated firms. They contributed 22 percent of the total sales value in 1990, which is now only 18 percent. Considering the smaller number of business group firms, still, the contribution from these groups is highly remarkable.

Figure 3: Composition of Sales (%)

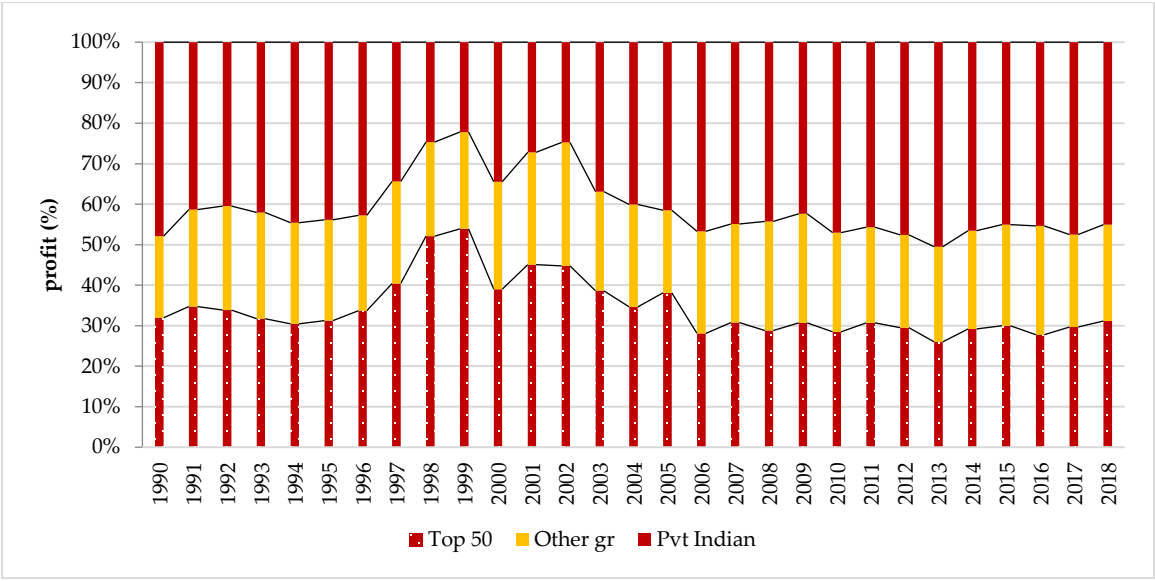


Source: Calculated using PROWESS database, CMIE.

Likewise, with the trends in sales and assets, there has been a drastic increase in the absolute amount of profit figures from the mid-2000s. Overall, the value of profit of firms in the group-affiliated companies, which constitute 25 percent of the firms, remained higher than that of the private Indian standalone companies, which make up more than 72

percent of the firms in the Indian corporate sector. In 1990, 52 percent of the profit share was coming from group-affiliated firms, which increased to 55 percent in 2008. In 1990, out of these, 32 percent belonged to the top 50 group firms, which slightly declined to 31 percent in 2018. Whereas the share of other groups increased to 24 percent from the initial figure of 20 percent. This indicates the strengthening of new groups within the group-affiliated firms. In some years, i.e. 1999, 1998, and 2002, the profit shares were as high as 75 percent and 78 percent. This hike was mainly accounted for by the top 50 group-affiliated companies. In 1999, the top 50 group affiliates accounted for 54 percent of the profit share. In general, more than 30 percent is accounted for by them (Figure 4, Table 11, and Appendix Figure 3).

Figure 4: Composition of Profit



Source: Calculated based on PROWESS Database, CMIE.

Table 11: Profit Share across Ownership Category

	Composition (percent share)			
Year	*Top 50*	*Other group*	*Pvt Indian*	*Group all*
1990	32	20	48	52
1991	35	24	41	59
1992	34	26	40	60
1993	32	26	42	58
1994	30	25	45	55
1995	31	25	44	56
1996	34	24	43	57
1997	40	25	34	66
1998	52	23	25	75

	Composition (percent share)			
Year	*Top 50*	*Other group*	*Pvt Indian*	*Group all*
1999	54	24	22	78
2000	39	27	34	66
2001	45	28	27	73
2002	45	30	25	75
2003	39	24	37	63
2004	35	25	40	60
2005	38	20	42	58
2006	28	25	47	53
2007	31	24	45	55
2008	29	27	44	56
2009	31	27	42	58
2010	28	24	47	53
2011	31	24	46	54
2012	30	23	48	52
2013	26	23	50	50
2014	29	24	47	53
2015	30	25	45	55
2016	28	27	45	55
2017	30	23	48	52
2018	31	24	45	55

Source: Calculated based on PROWESS Database, CMIE.

4.3 Who Controls the Group?

Next, the study explored who controls the output and profit within the group. Here we have used the average values for the three years at three-time points, 1990–92, 2000–02, and 2016–18. Three-year average values are used to overcome fluctuations in data. Sales-based shares held by each group is calculated. The data shows that the major share of sales is concentrated in a few business groups. Tata was the leading group in the first two time points, i.e. 1990–92 and 2000–02, with 16 and 13 percent sales share respectively (Table 12, Figure 4). In the last phase, i.e. 2016–18, Reliance became the leading group with the 16 percent share followed by Tata in second spot with 13 percent share. The sales share of Reliance was only five percent in the first phase, which increased to 12 percent in the second phase and drastically to 16 percent in the third phase (Table 12). The sales share of groups like Birla, RPG, and Bajaj are coming down over the years. Mahindra has gained compared to the 2000–02 situation of two percent to three percent in 2016–18. With this, Mahindra could also improve its ranking to 4th in 2016–18 from 7th position in 2000–02. The share of the top 50 business groups in all groups consistently increased to 72 percent in 2016–18 from 51percent in 1990–92. It is interesting to note that the top 10 business groups constituted 44 percent of the overall group's sales in 1990–92, which is now a 48 percent share. It is worth noting that, in general, more than 30 percent of sales share

belongs to the top three groups. It is also good to see the increasing presence of Wipro during recent years. Adani group gained during the last phase of analysis and ranked sixth during 2015–18. In general, it indicates a strong presence of a few business groups in the overall consumption basket of Indian consumers.

It is also important to identify who contributes the major share of the output of the top groups. In other words, Which are the top companies in each of these top groups? To understand this, we have used the same periods and the three-year average figures as shown above. This analysis reveals the concentration of sales among the few group companies for the major groups. A total number of 328 companies' data is available for the Tata group. Out of this, 69 percent of sales in the third phase, i.e. 2015–18 is generated by the top 10 companies. And, the top three companies constitute 57 percent of the sales revenue. They are Tata Consultancy Services (27 percent), Tata Steel (15 percent), and Tata Motors (15 percent). In the previous two phases, Tata Motors and Tata Steel were the top companies with 24 and 23 percent shares respectively in 1990–92. Hence, there has been a shift in terms of the top business from medium high-tech to the software segment as well over time. The share of the top 10 Tata companies was as high as 79 and 70 percent respectively during 2000–02 and 1990–92 period. Though the share of the top 10 companies decreased when compared with the 2000–02 period, the significance of the top 3 companies in Tata increased over the same time. It was 47 during 1990–92, which is now 57 percent in 2016–18 (Table 13).

When we look at the structure of Reliance, only one firm is the power centre that is, Reliance Industries Ltd, which is the source of 72 percent of sales generated in the 2015–18 period (Table 14). This share remains consistent at around 70 percent for all the other time periods examined. And, for the overall time period from 1990 to 2018, the contribution is 75 percent. Reliance Retail is the next top firm with a seven percent share during 2015–18 whereas if we look at the entire period for which data is available, i.e. 1990 to 2018, the second position goes to Reliance Infrastructure with an eight percent share. In the last phase, its share was only two percent. Reliance Petroleum had an 18 percent share during 2000–2002, which got merged with Reliance Industries.

Table 12: Ranking of Business Groups based on Sales Share (%)

Rank	*1990–2018*	*Share*	*1990–92*	*Share*	*2000–02*	*Share*	*2015–18*	*Share*
1	Tata Group	13.6	Tata Group	15.7	Tata Group	12.8	Reliance	15.8
2	Reliance	12.1	Birla	7.3	Reliance	12.4	Tata Group	12.6
3	Birla	4.5	Reliance	4.6	Birla	5.6	Om Prakash Jindal	3.9
4	M&M	2.2	RPG	3.4	TVS Iyengar	2.6	M&M	3.4
5	RPG	2.1	Bajaj Group	3.4	RPG	2.0	Birla	2.5
6	Bajaj Group	2.1	JK Singhania	2.3	Bajaj Group	2.0	Adani Group	2.2

Rank	*1990–2018*	*Share*	*1990–92*	*Share*	*2000–02*	*Share*	*2015–18*	*Share*
7	Om Prakash Jindal	2.1	Modi	2.2	M&M	1.7	Wipro	2.1
8	TVS Iyengar	2.0	M&M	2.1	Videocon	1.5	TVS Iyengar	1.8
9	Adani Group	1.3	Escorts	1.8	Essar (Ruia)	1.4	RPG	1.7
10	Essar (Ruia)	1.2	Godrej	1.6	Ruchi	1.3	Bajaj Group	1.7
11	Wipro	1.2	Murugappa	1.5	Murugappa	1.2	Hero (Munjals)	1.3
	Top 10	***43.2***		***44.2***		***43.3***		***47.5***
	Top 50	***68***		***51***		***51***		***72***

Source: Calculated using PROWESS Database, CMIE.

Table 13: Top Tata Group Companies based on Value of Sales (%)

SNo.	*Tata*	*1990-2018*	*1990-92*	*2000-2002*	*2015-18*
1	Tata Motors Ltd.	21.1	23.9	20.1	14.8
2	Tata Steel Ltd.	18.0	23.0	16.6	15.4
3	Tata Consultancy Services Ltd.	8.7	0.0	0.0	26.5
4	Tata Communications Ltd.	7.3	4.1	16.6	1.5
5	Tata Power Co. Ltd.	4.4	4.7	6.7	2.2
6	Tata Chemicals Ltd.	3.4	3.0	3.5	2.0
7	Voltas Ltd.	2.8	5.5	2.1	1.7
8	Tata International Ltd.	2.7	3.2	4.6	0.5
9	Tata Sons Ltd.	2.2	1.3	7.4	0.2
10	Titan Company Ltd.	2.1	1.1	1.6	3.9
	Top 10	***72.6***	***69.6***	***79.1***	***68.6***
	Top 5	***59.4***	***55.6***	***60.0***	***60.4***
	Top 3	***47.7***	***46.8***	***36.7***	***56.7***

Source: Calculated based on PROWESS Database, CMIE.

Table 14: Top Reliance Group Companies based on Sales (%)

Company	*1990-2018*	*1990-92*	*2000-2002*	*2015-18*
Reliance Industries Ltd.	74.8	70.0	71.0	71.6
Reliance Infrastructure Ltd.	8.3	15.5	7.0	2.4
Reliance Petroleum Ltd. (1993) [Merged]	1.8	0.0	17.7	0.0
Reliance Communications Ltd.	1.7	0.0	0.0	1.8
Parasrampuria Synthetics Ltd.	1.5	3.6	0.9	0.0
Reliance Communications Infrastructure Ltd.	1.3	0.0	0.0	0.4
Reliance Retail Ltd.	1.3	0.0	0.0	7.1
B S E S Rajdhani Power Ltd.	1.1	0.0	0.0	2.4
India Pistons Ltd.	0.8	2.3	0.5	0.1
Reliance Infratel Ltd.	0.6	0.0	0.0	1.3
Top 10	***92.6***	***91.4***	***97.2***	***85.9***
Top 5	***88.1***	***89.1***	***96.6***	***75.9***
Top 3	***85.0***	***85.5***	***95.7***	***74.1***

Source: Calculated based on PROWESS Database, CMIE.

Coming to the Mahindra Group, Mahindra & Mahindra Ltd was contributing 76 percent of sales revenue during 1990–92, which declined to 51 percent during 2015–18, Whereas the contribution of Tech Mahindra drastically increased from less than one percent to 25 percent during the same period. Another major contributor is the Mahindra Vehicle Manufacturers Ltd, which came around ten percent during the 2015–18 period. Hence, around 85 percent of revenue is generated by the top four firms (Appendix Table 6).

V. Conclusions and Discussion

This study gives an outline of the current structure of Indian business groups in terms of their presence in the Indian corporate sector. Several studies noticed that wealth creation and income inequality are increasing globally. In India, too, a concentrated structure of wealth and income distribution is noticed. The concentration of economic power in the hands of the big business groups has been discussed from the early decades of independence itself. Now the business groups are also under pressure due to stiff market competition. This study tried to address important questions like the extent of group-based firms, their size of the operation, the areas of operation, whether they are entering into areas with high technical intensity, and whether these firms still have a greater share of output and profit in the Indian corporate sector.

The study observed that the group affiliated firms account for barely one-fourth of the total and the number of these firms has been steadily declining over time. These firms are mainly involved in small- and medium-sized businesses. The incidence of business groups entering into large-scale business is coming down since the 1970s. While assessing the sectoral characteristics, it is observed that both the group and private Indian firms are mostly engaged in service sector activities. Irrespective of the group affiliation, firms are mainly investing in medium and low-tech businesses. Nevertheless, the smaller number of group-affiliated firms control a substantial portion of the output and profit share of the Indian corporate sector. The major share of sales is generated by a few firms within the groups. Further, the study also points out the emergence of new business groups within the group-affiliated firms.

From a policy point of view, the business groups have a greater potential for creating a resilient domestic manufacturing capacity in India, particularly in the context of Atmanirbhar Bharat Abhiyaan. Considering the fact that these are only a handful of firms compared to the vast majority of other firms operating across various sectors, we must create complementarities with the small and medium enterprises not only in terms of production, but also in terms of technological and marketing support to the firms with forward and backward linkages. Hence, the business groups can contribute towards self-reliance by themselves and also through strengthening the small businesses. This will be mutually beneficial, too.

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Appendix Tables and Figures

App. Table 1: Engagement in Economic Activities based on Value of Sales and Assets

Sales	*Share (%)*				
OECD Tech classif.	*Top 50*	*Other Group*	*Private (Indian)*	*Group all*	*Grand Total*
High	1	15	11	7	9
Medium High	36	18	18	28	23
Medium Low	40	30	32	36	34
Low tech	18	35	33	25	30
NA	4	2	6	3	5
Grand Total	1	15	11	7	9
Assets					
High	15	17	2	16	12
Medium High	22	16	25	21	22
Medium Low	32	29	49	31	35
Low tech	28	29	19	28	26
NA	3	9	5	5	5
Grand Total	100	100	100	100	100

Source: Calculated based on the OECD classification using PROWESS database, CMIE.

App. Table 2: Engagement in Economic Activities 1990-2018 (based on Vale of Sales, in percent)

OECD Tech class	*1990–2000*	*2000–2008*	*2009–2015*	*2015–18*	*1990–2018*
Private Indian					
High	9.7	11.3	11.7	11.8	11.1
Medium High	19.7	18.6	17.3	19.0	18.7
Medium Low	32.8	30.3	32.0	31.9	31.7
Low tech	29.4	32.4	33.9	32.1	31.9
NA	8.3	7.4	5.2	5.2	6.5
Grand Total	100.0	100.0	100.0	100.0	100.0
Other groups					
High	9.8	13.8	13.6	17.5	9.8
Medium High	17.9	16.4	17.7	18.8	17.9
Medium Low	36.8	31.0	29.9	30.3	36.8
Low tech	31.7	36.2	36.6	32.0	31.7
NA	3.8	2.6	2.2	1.4	3.8
Grand Total	100.0	100.0	100.0	100.0	100.0
Top 50					
High	1.2	1.6	1.1	1.0	1.2
Medium High	33.4	34.8	38.4	35.7	35.6
Medium Low	38.8	41.6	38.5	42.0	40.2
Low tech	21.5	18.0	16.8	18.1	18.6
NA	5.1	4.0	5.2	3.2	4.4
Grand Total	100.0	100.0	100.0	100.0	100.0

Source: Calculated based on the OECD classification using PROWESS database, CMIE.

App. Table 3: Economic Activity based on Assets (1990--2018, in percent)

OECD Tech class	*1990–2000*	*2000–2008*	*2009–2015*	*2015–18*	*1990–2018*
Private Indian					
High	14.2	17.1	15.2	14.6	15.3
Medium High	18.0	20.3	21.0	24.4	20.9
Medium Low	34.2	28.0	30.9	33.3	31.6
Low tech	28.9	30.0	29.6	24.7	28.3
NA	4.7	4.5	3.4	3.0	3.9
Grand Total	100.0	100.0	100.0	100.0	100.0
Other groups					
High	12.8	16.0	14.8	21.1	16.2
Medium High	13.4	13.6	16.6	16.6	15.0
Medium Low	41.5	33.1	26.9	28.8	32.6
Low tech	27.8	31.7	30.5	25.9	29.0
NA	4.5	5.6	11.2	7.6	7.2
Grand Total	100.0	100.0	100.0	100.0	100.0
Top 50					
High	1.1	3.3	0.9	0.8	1.5
Medium High	23.3	24.7	26.8	24.6	24.8
Medium Low	50.9	47.8	48.8	50.3	49.5
Low tech	17.0	19.5	18.3	20.3	18.8
NA	7.7	4.7	5.2	4.0	5.4
Grand Total	100.0	100.0	100.0	100.0	100.0

Source: Calculated based on the OECD classification using PROWESS database, CMIE.

App. Table 4: Engagement in Economic Activity according to the Sales Value (in percent)

Tech level	*Sector*	*Top 50*	*Other groups*	*Private Indian*
1	Pharmaceutical	0.2	5.3	4.0
1	Medical, Precision and Optical Instruments	0.0	0.2	0.5
1	Office, Accounting and Computing Machinery	0.0	0.1	0.1
1	Radio, TV and Communication Equipment	0.2	0.8	0.3
1	Aircraft and Spacecraft	0.0	0.0	0.0
2	Chemicals	3.5	5.7	3.8
2	Electrical Machinery and Apparatus	1.4	3.7	3.9
2	Machinery	4.6	1.8	1.8
2	Motor vehicles trailer and semi-trailers	7.8	2.3	2.1
3	Basic Metals	9.4	3.5	5.4
3	Fabricated Metal Products	0.1	0.9	1.9
3	Rubber & Plastics	1.4	1.6	1.4
3	Non-metallic Minerals	0.6	1.3	0.8
3	Coke and Refined Petroleum	0.3	0.3	0.3
4	Textiles	0.7	4.8	3.8
4	Food, Beverages and Tobacco	2.6	6.5	3.7

Tech level	*Sector*	*Top 50*	*Other groups*	*Private Indian*
4	Paper & Paper Products	0.0	1.4	0.7
4	Leather & Footwear	0.4	0.0	0.3
4	Wood & Wood Products	0.3	0.1	0.2
4	Printing and Publishing	0.0	0.0	0.1
	Other Manufacturing	2.8	2.4	5.3
	Diversified Manufacturing	1.1	0.1	1.4
	Manufacturing All	***37.3***	**42.7**	***41.8***
	Primary	***0.1***	**0.9**	***1.4***
	Service	***62.1***	**55.6**	***55.9***
	Diversified	0.4	0.8	0.9
	Other		0.0	0.0
	Grand Total	100	100	100

Source: Calculated based on the OECD classification using PROWESS database, CMIE.

Note: (i) Tech level is defined as per the OECD classification as discussed in the text. In table, 1 denotes high, 2 denotes medium high, 3 as medium low, and 4 denotes low-tech (ii) Total shares may not add up to a Hundred percent in some cases due to the non-availability of data.

App. Table 5: Sales Share across Ownership Category (%)

Sales	*Top 50*	*Other group*	*Pvt Indian*	*Group all*
1990	35	22	43	57
1991	34	22	44	56
1992	33	22	45	55
1993	31	23	46	54
1994	31	23	46	54
1995	30	22	47	53
1996	31	23	47	53
1997	32	22	46	54
1998	31	22	47	53
1999	30	22	48	52
2000	31	22	48	52
2001	34	21	45	55
2002	32	21	46	54
2003	31	21	48	52
2004	31	21	48	52
2005	30	20	50	50
2006	29	20	50	50
2007	30	20	50	50
2008	29	21	50	50
2009	28	21	51	49
2010	29	20	51	49

Sales	*Top 50*	*Other group*	*Pvt Indian*	*Group all*
2011	29	20	51	49
2012	29	20	51	49
2013	28	20	52	48
2014	25	19	56	44
2015	23	19	58	42
2016	22	19	59	41
2017	24	19	56	44
2018	35	18	48	52

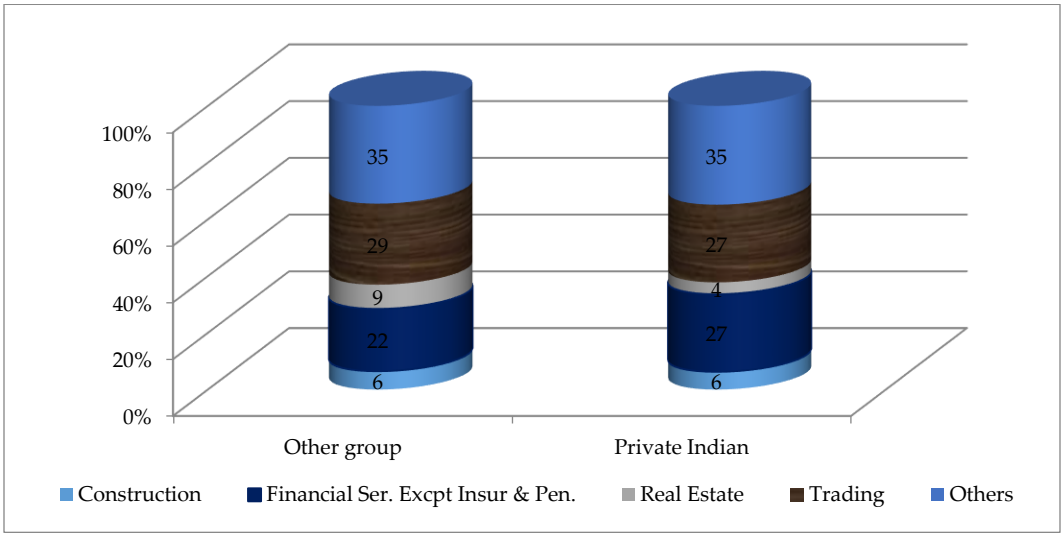
Source: Calculated based on PROWESS Database, CMIE.

App. Table 6: Top Mahindra Group Companies

Company	*1990–2018*	*1990–92*	*2000–2002*	*2015–18*
Mahindra & Mahindra Ltd.	68.2	75.8	75.2	50.9
Tech Mahindra Ltd.	9.6	0.2	6.8	24.5
Mahindra Ugine Steel Co. Ltd. [Merged]	4.7	10.4	4.5	0.0
Mahindra Vehicle Mfrs. Ltd.	2.6	0.0	0.0	9.8
Mahindra Intertrade Ltd.	2.0	0.1	2.4	1.3
Swaraj Engines Ltd.	1.3	1.3	2.6	0.8
Mahindra Hinoday Inds. Ltd. [Merged]	0.7	0.3	0.9	0.0
Mahindra Holidays & Resorts India Ltd.	0.7	0.0	0.5	1.0
Mahindra Engineering & Chemical Products Ltd.	0.6	1.5	0.7	0.0
Mahindra C I E Automotive Ltd.	0.6	0.0	0.0	2.0
Top 10	***90.3***	***89.7***	***93.6***	***88.3***
Top 5	***87.0***	***86.6***	***88.9***	***86.5***
Top 3	***82.5***	***86.5***	***86.5***	***75.4***

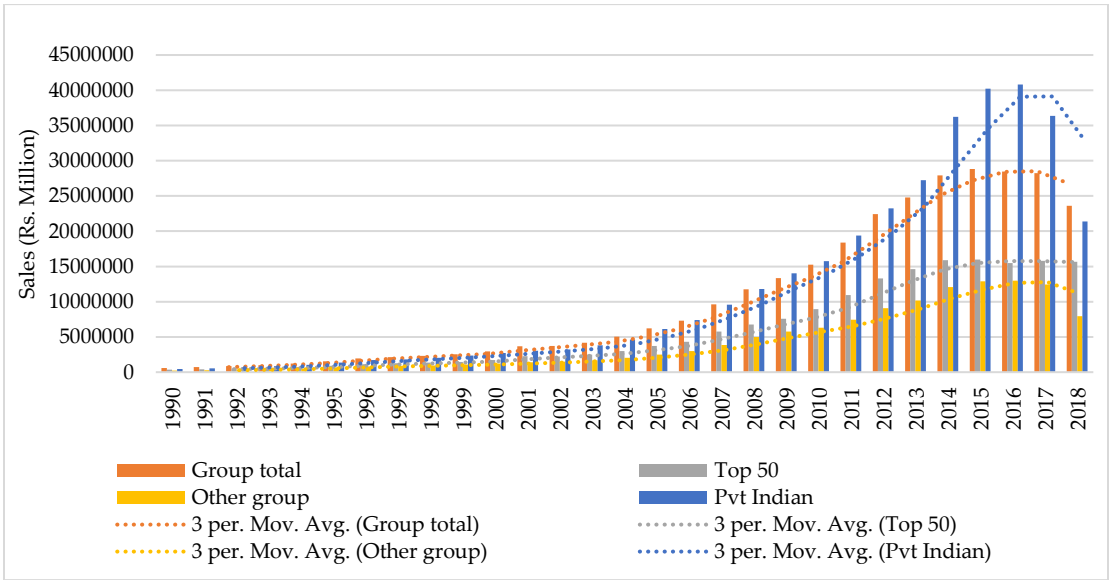
Source: Calculated based on PROWESS Database, CMIE.

App. Figure 1: Service Sector Activity



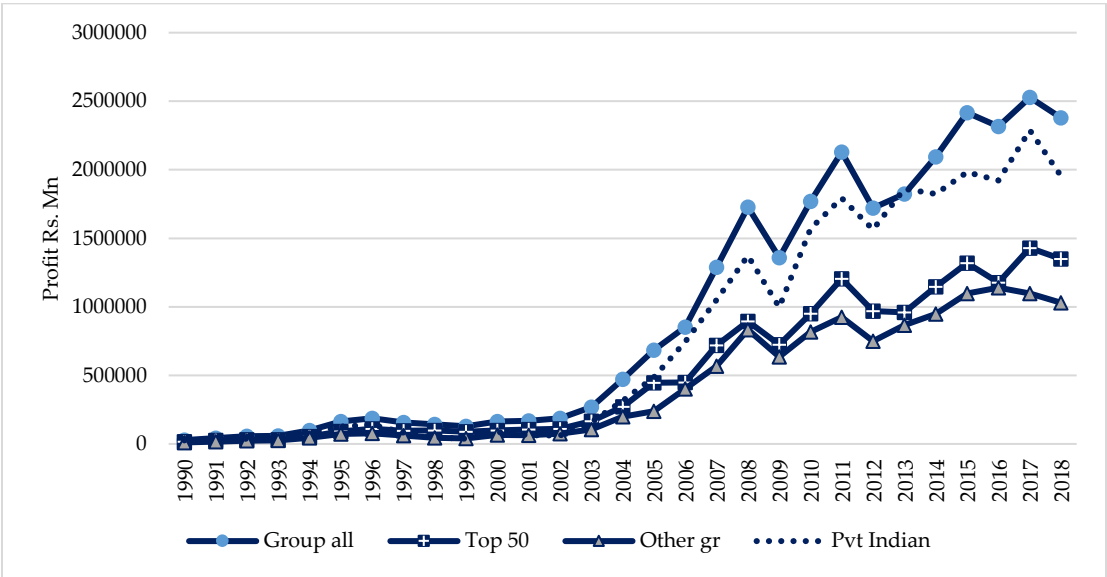
Source: Calculated from PROWESS Database, CMIE.

App. Figure 2: Sales across Ownership Categories



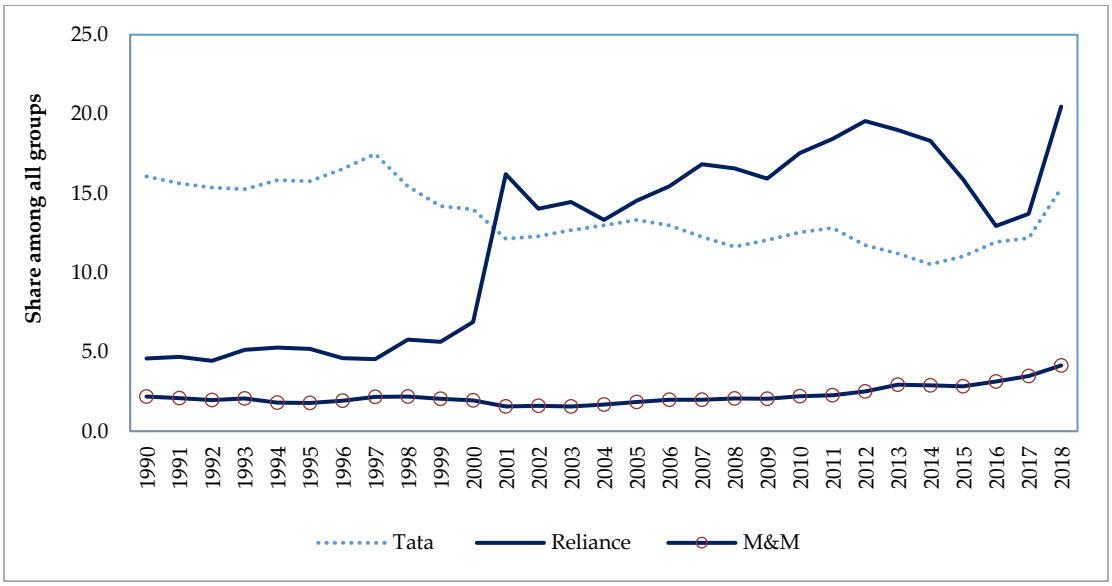
Source: Calculated using PROWESS database, CMIE.

App. Figure 3: Trends in Profit



Source: Calculated based on PROWESS Database, CMIE.

App. Figure 4: Selected Top groups: Tata, Reliance and M&M



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