ISID Institute for Studies in Industrial Development
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Product Market Concentration with Ownership Characteristics: An Exploration into the Consolidation Activities of Business Groups

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Beena Saraswathy*

***Abstract**: Often, the competition regulation is applied on the narrowly defined product level market, which ignores the aggregate level concentration. Though the trade-off between efficiency creation and market concentration is discussed as part of the competition regulation, it seldom addresses the ownership level concentration at the aggregate level. This study aims to unravel the likelihood of concentration of economic power in the context of the Competition Act, 2002. It is observed that the involvement of Indian business groups in M&As is substantial. The synergy creation through M&As is much more for business groups compared to standalone firms due to the existence of multi-products and affiliates across various regions. From the policy point of view, apart from the general implications of M&As reflected in market competition, the ownership-wise synergies are important in efficiently utilising the resources under a common umbrella of business, which will not be reflected in the narrowly-defined markets. The study suggests that the business groups strategically use M&As to become globally competitive through deriving horizontal and vertical linkages, while the regulators need to ensure that it does not lead to the concentration of assets in few hands at the aggregate level, which is likely to harm market competition across various products in the future.*

Keywords: Regulation and Industrial Policy; Firm Performance; Size Distribution of Firms; Monopolisation Strategies; Antitrust Issues and Policies

JEL Code: L5; L25; L11, L12, G34

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1. The Context

Globally, the concentrated distribution of wealth is a widespread socioeconomic phenomenon. For long, both income inequality and wealth inequality have seen aggravation in most countries across the world, albeit at disparate speed. These different patterns in inequality are considered to be a product of the disparate policy and institutional atmosphere of the countries in purview. Nevertheless, competition regulation in its current form is mainly concentrated on the concept of 'economic efficiency' and not on addressing the 'social fairness' concept comprehensively (Lianos, 2020). Competition regulation is based on the principles of market mechanism, which is expected to generate maximum consumer welfare. Often, competition regulation is applied to the narrowly defined product level market, which ignores the aggregate level concentration. Though the trade-off between efficiency creation and market concentration is discussed as part of competition regulation, it seldom addresses the ownership level concentration at the aggregate level. Often, business groups have presence in multiple products and markets. Further, the business groups own not only business power, but also economic, social, and political power, the net effect of which is immeasurable.

In India, the concentration of economic assets in the hands of big business groups had been an important policy issue during the MRTP regime.[1] However, with the amendment made in 1991, the concentration of economic power has been de-emphasised, and the new competition regime, i.e. Competition Act, 2002, implemented in the country from 2009 onwards. Many a time, mergers and acquisitions (M&As) are used as a tool to consolidate various business operations across various product lines, which ultimately increase the concentration of economic asset of the concerned business owners. This is not to undermine the fact that for them M&As are also a tool for restructuring and competence building, which can create and strengthen strong backward and forward linkages within the group. In this background, this study examines to what extent the business groups engaged in consolation activities such as M&As to grow their size and improve competitiveness, and how it is reflecting on the product market competition in the selected sectors. This paper is organised into six sections. After introducing the context in the first section, the second section discusses how the formation of business groups and M&As have comparable goals. The third section reviews important studies on income and wealth concentration, followed by data and methodology in the fourth section and major findings in the fifth section. The sixth section concludes the findings.

2. Effects of Business Group Consolidation on Competition

The literature on M&As identifies three types of consolidation activities. They are: (i) horizontal deals, (ii) vertical deals, and (iii) conglomerate or unrelated deals. Horizontal deals are those in which firms producing similar products consolidate their operations,

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[1] The MRTP Act (1969), Government of India.

whereas vertical deals occur when the firms in buyer-seller relation consolidate their operations. These two types of deals are considered more important when competition assessment is made. This is because the likelihood of creating market barriers are higher under these two cases and the competition authorities generally treat these deals with special caution. The third, i.e. conglomerate deals occur in unrelated business activities. Hence, these deals may not directly pose a challenge to the existing level of competition. However, it is possible that in some circumstances, these firms can cut the production of unprofitable areas of business operations, which may adversely affect the existing consumers of those products, especially when there is no or less alternate supplier for those products. Even in conglomerate deals, synergies may be created in the marketing, advertisement, and distribution channels.

Similar to the above discussion on M&As, the literature on business groups identifies three types of diversification. They are, (i) related (ii) linked, and (iii) unrelated diversification (Galbraith, 1998, as in Kakani, Sangem, and Sethi, 2015). In the related line, the group branches out into new, closely related business lines/product lines. For example, the company producing coconut hair oil may diversify into hair care, refined oil, personal care, etc., under the same business umbrella. Here the synergy creation is much more since the raw materials used and production is closely related. The effects of related diversification is similar to the horizontal M&As discussed above. This enables them to strengthen their competitiveness in their core area of production. In the second case, business groups diversify into the vertical line of business activities, i.e. in the buyer-seller relationship. Such integration may be forward or backward. This is mainly applicable when the firms procure raw materials and such other intermediary goods from others. When the group firms engage in such lines of business, it becomes easy to procure such items and the synergy creation is also high in the process. In this way, the firms can control the cost to a great extent. For example, groups which focus on automobile**s**, basic metals, and so on. Here the metal requirement of the automobile firm can be met by the same affiliate group firm. Similarly, the group may also enter into the next level of output, which the consumer demands. The third line, i.e. conglomerate, is where the affiliated firms engage in different business lines, which does not have any type of linkages or buyer-seller relation. For example, affiliated firms engage in pharmaceutical production and the automobile sector. Here it can be noticed that the degree of diversification increases in the case of conglomerate line of business, whereas the specialisation or product concentration increases in the case of related/horizontal deals, which are less diversified. Even in conglomerate structure, synergy creation may be possible. For instance, in the above example of the pharmaceutical and automobile business, it is possible to derive synergies in marketing and distribution.

From the above discussion, it can be seen that the purpose behind the creation of business groups and that of consolidation activities are somewhat similar when analysed from the producers' point of view.[2] Under both situations, one of the major business interests is to reduce the cost of production and thereby increase profitability; this can be achieved by generating synergies using both the group affiliation channel and the consolidation of the business. In addition, consolidation enables these groups to further strengthen the market power of various products. These deals may also help the group to lessen future competition by taking over potential competitors, both experienced firms and start-ups in vertical and horizontal lines. This is not to undermine the fact that each deal is different, which needs to be assessed separately. It is also possible that certain consolidation activities increase competition, especially when the deals are undertaken by the incumbent firms, which ultimately increase competition among the top firms in the relevant sector. This may result in increased consumer welfare, either through the reduction in prices or increased quantity/quality of products or services.

3. Income and Wealth Inequality and the Concentration of Economic Power among Big Business Groups: A Look into the Literature

Two streams of literature can be identified in this connection. First is the studies on unequal distribution of income and wealth, i.e. inequality in general. Any discussion on wealth concentration will be meaningless if it does not discuss the distribution of wealth across the various strata in society. Various studies like Banerjee and Piketty (2005), Sarma, Saha, and Jayakumar (2017), Jayadev, Motiram, and Vakulabharanam (2007) and Anand and Thampi (2016) examined various aspects of the unequal distribution of income and wealth in India and pointed out the widening income and wealth disparity in the country, especially during the post the liberalisation period that brought a slew of policy upheavals. Banerjee and Piketty (2005) observed the income shares of the top 0.01 percent, 0.1 percent and 1 percent substantially shrank from the 1950s to mid-1980s and then rose again in the 1990s. This U-shaped pattern is broadly in line with the economic policies implemented. The initial income share of the top groups were small. Although the rich were getting richer their impact on the overall income distribution was insignificant.[3] In this context, the business network in India is considerably influenced by a handful of business groups that have a significant share in the overall business portfolios. With time, the large business houses have expanded their wings of operation to various diversified activities, which further strengthened their imprints on the economy. This is the focus of the second stream of literature, i.e. on the concentration of economic assets in the hands of big business groups. Important studies under this stream are discussed here.

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[2] Acquiring ownership control is another important goal. Here we are focusing more on market competition.

[3] A more detailed review of wealth inequality is available in Saraswathy, B (2021). Here we have excluded the details of wealth inequality as it is not the focus of this study

3.1. Need to Distinguish Market Power and Economic Power

The Monopolies Inquiry Commission (MIC) Report, 1965 (GoI, 1965) clearly stated that concentration of economic power is a central problem and the monopolistic and restrictive practices can be considered as the two major 'functions' of such concentration of economic power. Two important kinds of concentration of economic power exist in the industries. They are: (i) product-wise concentration, and (ii) country-wise concentration.[4] MIC found the prodigious existence of both country-wise and product-wise concentration.

Monopolies Inquiry Commission found that, out of the 100 selected products, which are important for ordinary consumers, high concentration exists for 65 products, medium concentration was found for ten products, concentration was low for eight products, and in 17 products, concentration was nil.[5] High concentration was registered for crucial consumption items such as various medicines, automobiles, rubber, footwear, and so on. Low concentration was found mainly for textile and food items. In 41 products, the maximum number of firms engaged in production was less than or equal to four. Table 1 shows details of product-wise concentration across various broad categories.

Table 1: Product-wise Concentration across Various Products as per MIC Report

SN.	*Sector*	*High (≥75)*	*Medium (60-75)*	*Low (50-60)*	*Nil (<50)*	*Total*
1	Food	3	1		5	9
2	Clothing			2	7	9
3	Fuel	2			1	3
4	Household Goods	12	4	4	2	22
5	Conventional Necessaries	9				9
6	Medicines	18	1			19
7	Transport Goods	19	3	1		23
8	Building Materials	2	1	1	2	6
	Total	65	10	8	17	100

Source: Author's compilation from Monopolies Inquiry Commission Report, 1965.

[4] Product-wise concentration occurs where 'in respect of the production and distribution of any particular commodity or service the controlling power whether by reason of ownership of capital or otherwise is in a single concern or comparatively limited number of concerns or though in a fairly large number of concerns, these concerns themselves are controlled by only a single-family or a few families or business houses.' It can be also called 'industry-wise' concentration if the industry is engaged in the production of one product. The other, that is country-wise concentration, occurs when a large number of concerns engaged in the production or distribution of different commodities are in the controlling hands of one individual or family or group of persons, whether incorporated or not, connected closely by financial or other business interests. Here the concentration of economic power is clearly considered as existing. Hence, MIC distinguishes both product-wise concentration and ownership-wise concentration while defining the concentration of economic power.

[5] MIC used sales based three-firm concentration ratios (C3) for reflecting the product-wise concentration. If the ratio is 75 percent or more, concentration is considered to be High;, if C3 is between 60 and 75 percent concentration is medium; 50 to 60 percent is low; and, if it is less than 50 percent, concentration is nil.

In order to understand the extent of country-wise concentration, Monopolies Inquiry Commission (MIC) prepared a list of industrial houses and the affiliated companies based on secondary sources of information and circulated it to the respective houses to correct it.[6] The MIC's final list consists of 75 business groups with more than Rs 5 crore asset size, which again consists of 1536 affiliated companies with more than Rs 1 crore asset size. The MIC found that the asset share of these groups in all non-government and non-banking companies is 47 percent, while the share based on paid-up capital is 44 percent. It can be seen from the table that large affiliated companies constitute the major portion of the assets of the groups (see Table 2). In addition, MIC noted 16 companies with country-wise concentration; they are not part of the 75 groups mentioned. These 16 companies are engaged in diversified activities and the asset size of many of these companies was even higher than that of the group assets size.

Table 2: Asset share of large affiliated companies in Total group

	Affiliated Companies (AC) (in No.)			*AC's Assets (in Rs Lakhs)*		
Group	*Total*	*with ≥ Rs. 1 crore*	*Share (%)*	*Total*	*with ≥ Rs. 1 crore*	*Share (%)*
Tata	53	27	51	41772	38499	92
Birla	151	54	36	29272	27104	93
Martin Burn	21	9	43	14961	14471	97
Bangur	81	15	19	7791	5836	75
ACC	5	3	60	7736	7599	98

Source: Author's compilation from Monopolies Inquiry Commission Report, 1965.

The MIC also discussed the existence of monopolistic and restrictive trade practices, social and economic consequences of concentration, and so on. The MIC recommended establishing a permanent body to protect the country from future threat from the concentration of economic power in private hands and also to eliminate the monopolistic and restrictive trade practices. Overall, MIC's stand was not against big business, but to ensure that it is not misusing the concentration of economic power. It is also to be mentioned that MIC took a balanced approach towards M&As as well. It is mentioned that, "*it is wrong to look upon mergers and amalgamations to be per se harmful to public interest. A cautious approach is therefore desirable*." When M&As of dominant enterprises are involved,

[6] Then the MIC examined the share structure, mode of management, and Board of Directors (BoD) composition. If more than 50 percent of equity capital is controlled by one particular industrialist or his close relatives, then the firm is considered to be controlled by one industrialist. Similarly, if company A and B control more than 50 percent of the equity shares of company C, and the business house X is found to control both companies A and B, then company C is also considered to be part of business house X. Besides, the information on BoD composition and managing agency was used to derive the final list. Jointly controlled firms, foreign subsidiaries, and banking sector firms were excluded from the list.

its positive and negative effects need to be evaluated and the deal should be approved only if the positive elements are clearly higher than negative effects.

There is a need to distinguish between business power and economic power (Goyal, 1979). Business power and concentration can be quantified using various indicators, whereas economic power is a qualitative concept and its extent depends on various additional factors. Though the control of assets by a particular business ownership reflects the relative size of the business empire of that house, it seldom reveals the actual control of that house on various strata of the society and the country. Chaudhuri (1975) says, the disproportionate influence exerted by the top business groups is not measurable statistically with some simple statistical concentration ratios. Many a time, even minority ownership is sufficient to gain such control. Hence, the controlling block is not always necessary. Such indirect control is operationalised through the instruments of interlocking directorship and inter-corporate investment. However, in the open economy framework, a certain level of dominance is essential to compete in the global market.

From the policy point of view, often the market structure and concentration are assessed, based on the market share of firms in the respective sector. However, it is observed that business groups own multiple companies in the same sector with forward and backward linkages with own companies in other sectors. Hence, ownership needs to be considered while assessing market concentration. This study is an attempt to address this.

4. Data and Methodology

We have used PROWESS database of Centre for Monitoring Indian Economy (CMIE) for collecting data on business groups. In order to get information on the M&As undertaken by business groups, we have used Venture Intelligence database. There is no direct database on the M&As undertaken by the business groups. We have identified it case by case. The period of study is 1990 to 2019. In order to understand the depth of M&A activity among business groups, we have selected the top 50 business groups as covered by the PROWESS database. PROWESS identified the top 50 business groups based on the size of assets. We have identified the transactions related to all the selected 50 business groups from the M&A database of Venture Intelligence by screening each transaction based on the name search of the groups and affiliated companies. Data on M&As covers the period January 2004 to July 19, 2019. Out of the top 50 business groups identified from PROWESS, data for M&As is available for 43 groups from Venture Intelligence. Simple statistical techniques are used to understand the intensity of M&As undertaken by the business groups. The study examined the product market competition with ownership criteria for which we have calculated the market concentration with ownership characteristics.

5. Major Observations from the Study

5.1. Business Groups and Income Inequality in India

Table 3 shows the richest Indians in the world, who come under the billionaires' list. Bloomberg publishes a daily index of the world's top 500 richest people based on the value of the net worth of each billionaire. Now there are 19 billionaires from India listed in the world's billionaires list. Of these, the richest Indian is Mukesh Ambani – ranked 11 globally – having a net worth of around $76.3 billion, which is approximately 3.6 percent of Indian GDP. The second richest Indian is Gautam Adani with a global rank of 40. Adani has a net worth of $1.53 billion, which is around 1.5 percent of the Indian GDP. In total, the net worth of the 19 richest Indians are around $293.49 billion, which is roughly around 14 percent of Indian GDP.

Table 3: Indian Business Reflected in World's Billionaires Index (as of December 21, 2020)

SNo.	*Business Group*	*Total Networth (Bn $)*	*Rank Globally*	*Approx. Share of GDP (%)*
1	Mukesh Ambani (Reliance Industries)	76.3	11	3.61
2	Gautam Adani (Adani)	32.2	40	1.53
3	Azim Premji (Wipro)	24	62	1.14
4	Shiv Nadar (HCL)	22.7	69	1.08
5	Lakshmi Mittal (Arcelor Mittal)	16.4	119	0.78
6	Cyrus Poonawalla (Serum Institute of India)	16.2	121	0.77
7	Uday Kotak (Kotak Mahindra)	15.9	126	0.75
8	Radhakishan Damani (Avenue Supermarts)	14.2	142	0.67
9	Dilip Shanghvi (Sun Pharma)	9.83	224	0.47
10	Sunil Mittal (Bharti Airtel)	8.87	260	0.42
11	Nusli Wadia (Wadia group)	8.12	287	0.38
12	Benu Gopal Bangur (Sthree cement)	7.69	305	0.36
13	Savitri Jindal (OP Jindal Group)	7.1	343	0.34
14	Kumar Birla (Aditya Birla)	6.77	367	0.32
15	KP Sing (DLF)	5.58	458	0.26
16	Rahul Bajaj (Bajaj group)	5.55	461	0.26
17	Aswin Dani (Asian Paints)	5.45	470	0.26
18	Abhay Vakil (Asian Paints)	5.39	479	0.26
19	Pankaj Patel (Cadila Healthcare)	5.24	499	0.25
	Total	293.49		13.90

Source: Compiled from Bloomberg Billionaires Index 2020 https://www.bloomberg.com/billionaires/

Note: As per the Economic Survey (2019-20), the GDP at a constant price for 2019-20 (AE) is Rs. 14778878 crores, which is converted to US dollar using the approximate exchange rate 1: 70.

The Forbes list 2020 placed several of India's business groups in the top 100 for their shares spoke volumes about their aggrandised role in the business landscape of the world. The net worth of the richest Indians as rated by the Forbes list as of October 7, 2020 is given in Table 4. The first 25 ranks are listed in the table. Mukesh Ambani tops the list with around $89 billion. Here, it can be noticed that the net worth of Mukesh Ambani is less than that given in Bloomberg list. The data points for both lists is different. As per October 2020 data, Mukesh Ambani's net worth was around 4.2 percent of Indian GDP, and that of Gautam Adani was 1.2 percent. In total, the 25 listed richest Indians constitute approximately 15.4 percent of the Indian GDP.[7] In Table 4, we have compiled the business in which the richest Indians are engaged. It can be seen that the business interest varies from IT to petrochemicals, paints, and cement. And many of them are part of the conglomerate business structure.

Table 4: Top 25 Richest Indians in 2020 (as on October, 2020)

Rank	*Business Group*	*Main Business*	*Total Net worth (Bn.$)*	*Approx. share of GDP (Approx.)*
1	Mukesh Ambani (Reliance Industries)	Diversified: Petrochemicals, oil and gas, retail, telecom	88.7	4.2
2	Gautam Adani (Adani)	Commodities, Power generation &transmission, ports, real estate, defence, data centres	25.2	1.2
3	Shiv Nadar (HCL)	Software services	20.4	0.97
4	Radhakishan Damani (Avenue Supermarts)	Supermarket	15.4	0.73
5	Hinduja Brothers (Hinduja-Ashok Leyland)	Conglomerate including trucks, lubricants, banking, cable TV	12.8	0.61
6	Cyrus Poonawalla (Serum Institute of India)	Vaccines	11.5	0.54
7	Pallonji Mistry (Shapoorji Pallonji Group)	Engineering & Construction	11.4	0.54
8	Uday Kotak (Kotak Mahindra)	Bank	11.3	0.54
9	Godrej Family (Godrej Group)	Consumer goods	11.0	0.52
10	Lakshmi Mittal (Arcelor Mittal)	Steel	10.3	0.49
11	Sunil Mittal (Bharti Airtel)	Telecom Network	10.2	0.48
12	Dilip Shanghvi (Sun Pharma)	Pharmaceutical	9.5	0.45
13	Burman Family (Dabur)	Consumer goods-hair oil, fruit juice, health supplements	9.2	0.44
14	Kumar Birla (Aditya Birla)	Conglomerate including cement, aluminum, telecom, financial service	8.5	0.40
15	Azim Premji (Wipro)	IT, Consulting and Outsourcing	7.9	0.37

[7] We understand that this is not comparable exactly. However, it gives a crude picture on the extent of concentration of wealth.

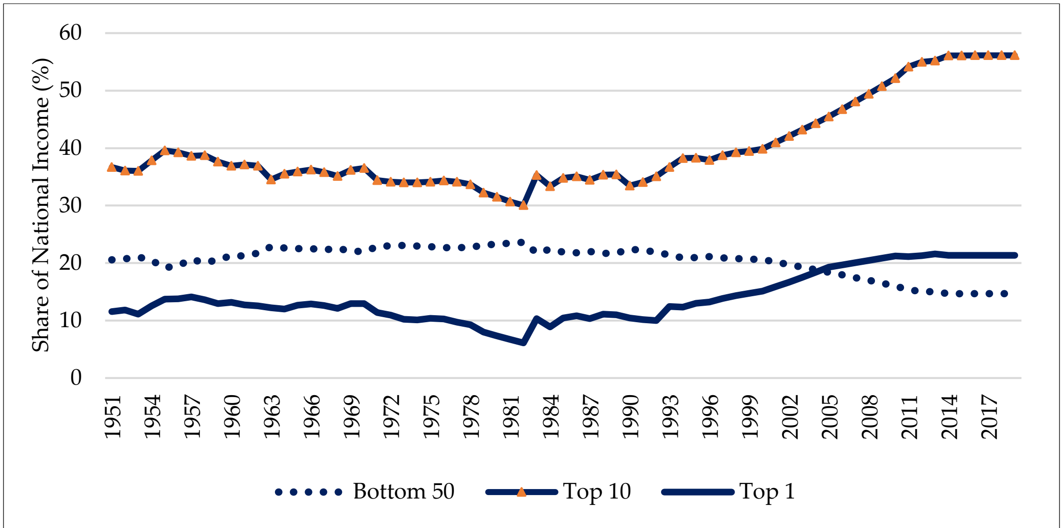
Rank	*Business Group*	*Main Business*	*Total Net worth (Bn.$)*	*Approx. share of GDP (Approx.)*
16	Bajaj Family (Bajaj)	Motor cycle, auto, and financial service	7.4	0.35
17	Madhukar Parekh (Pidilite Industries)	Adhesives and sealants-fevicol -glue popular)	7.2	0.34
18	Kuldip Singh Gurbachan Singh Dhingra (Berger Paints)	Paints	6.8	0.32
19	Savitri Jindal (OP Jindal Group)	Conglomerate including steel, power, cement and infrastructure	6.6	0.31
20	MuraliDivi (Divi Laboratories)	API exports	6.5	0.30
21	Benu Gopal Bangur (Sthree cement)	Cement	6.1	0.29
22	Sudhir Mehta Samir Mehta (Torrent group-Torrent Pharma and Torrent Power)	Electricity and Pharmaceutical	5.9	0.28
23	Hasmukh Chudgar (Intas Pharmaceutical)	Pharmaceutical	5.4	0.26
24	Ashwin Dani (Asian Paints)	Paints	5.3	0.25
25	Girdhari Lal Bawri Rajendra Agarwal Banwari Lal Bawri (Macleods Pharmaceutical)	Pharmaceutical	5.0	0.24
	Total		**325.5**	15.41

Source: Compiled from the Forbes List https://www.forbes.com/india-billionaires/list/#tab:overall

Note: (i) Company affiliation is given in parenthesis (ii) As per the Economic Survey (2019–20), the GDP at constant price for 2019–20 (AE) is Rs 14778878 crores, which is converted to US dollar using the approximate exchange rate 1: 70.

As per the World Inequality Report 2018, the top ten percent of the population in India held 55 percent of the GDP in the year 2018. This percentage makes India come just behind the raging income inequality in the Middle East region where the top ten percent pocket 61 percent of the national income. From the look of the top ten percent share in the national income, Europe appears to have the lowest rate of income inequality at 37 percent of national income. Nevertheless, the situation is grim in dilapidated areas of the African continent and Latin America in that both Sub-Saharan Africa and Brazil show gloomy days of income inequality where the top ten percent clasps 54 percent and 55 percent of the national income, respectively. This places India and Brazil at the cusp of simmering income inequality. Throughout the 1990s and 2000s up until 2015, wealth inequality has also seen a sharp rise as told through the Forbes India rich list. Affluent Indians who made it to the Forbes list in the 1990s constituted two percent share in the national income of the country which increased to a whopping 27 percent in the period following the global financial crash of 2007–08 but again coming down to ten percent in the year 2015 (Chancel and Piketty, 2019). The latest data reported by World Inequality Database shows that the income owned by the top one percent population in India increased to 21.4 percent in 2019 from 1951 level of 11.5 percent, and the same for the top ten percent population increased to 56 percent from 37. On the other side, the share of income held by the bottom 50 percent population declined further to 14.7 percent from 20.6 percent (see Figure1). Hence, it is clear that in India, more than half of the income share is accrued by the top ten percent of the population, whereas there has been a fall in the income owned by the bottom 50 percent.

Figure 1: Income Shares in India across Population Groups: 1950-2019



Source: Calculated using Wealth Inequality Database on Income Inequality in India, Available at: https://wid.world/data/#countrytimeseries/sptinc_p90p100_z;sptinc_p0p50_z/IN/1951/2019/eu/k/p/yearly/s, Accessed on 8th December 2020.

5.2. M&As undertaken by Business Groups

As per the data collected, the 43 groups or their affiliated companies are appearing in 1083 transactions. Out of these, 352 transactions are minority deals or sales of various assets. The rest of the 731 transactions can be counted as majority acquisitions. The maximum number of transactions are undertaken by Tata group, i.e. 144 transactions. Out of that, 38 are the sale of assets/minority deals and 106 majority deals. Reliance is the next top deal maker with 116 transactions. Out of this, 69 are majority deals. Mahindra is third with 105 transactions. If we are counting by majority deals, Mahindra comes second with 82 majority deals. Next, Birla is having 67 transactions, of which 44 are majority deals. Essar (Ruia) and Wipro have 55 transactions each, out of which 23 and 32 are minority and majority deals respectively. Larsen & Toubro (L&T) and Godrej have 35 majority transactions each. Other consolidation intensive groups are OP Jindal (45 transactions, 28 majority deals); Piramal (45, 21); TVS (44, 31); HCL (40, 26), Hero (Munjal) (29, 19), and so on.[8] There was very little involvement of groups like Mafatlal, Lalbhai, and MA Chidambaram in consolidation activities.[9]

When we look at the major sectors in which the top business groups engaged in consolidation activities, IT and IT-enabled sector (IT & ITES) occupy the topmost position, comprising 18 percent of all transactions (134 out of 732 majority deals). The automobiles sector ranks second with 92 transactions (13 percent). Next come basic metals (48, 7%), energy (45, 6%), banking and financial service (41, 6%), food and beverages (39, 5%), engineering & construction and telecom (30, 4%) each, machinery (29, 4%), pharmaceuticals (25, 3%), media and entertainment (22, 3%), shipping & logistics (22, 3%), and so on. Coming to the question as to who was the top dealmaker within these preferred sectors, the study observed that in the IT and ITES, HCL and Wipro are the top dealmakers with 22 and 20 deals respectively. Mahindra also has 19 deals in the sector. L&T and Tata are the other top deal makers with 12 and 10 deals respectively. In the automobile sector, Mahindra and Tata are the top transaction makers who accounted for more than 50 percent of all transactions in the sector. Mahindra is engaged in 26 transactions, which makes 32 percent of all transactions in this sector and that of Tata is 16, which is 20 percent of all transactions in the sector. Hero (Munjal), Bharat Forge (Kalyani), and Essar (Ruia) are the next coming deal makers in the sector. In basic metals, out of the 48 deals, 25 belong to Tata and OP Jindal (OPJ) groups. Tata has 14 and OPJ has 11 transactions. Essar (Ruia) is next with seven deals. All others have a minimal presence. The next important sector is banking, financial services, and insurance, where Reliance and Mahindra share the top position with seven transactions each, followed by L&T which has five transactions.

It is interesting to note that out of the 38 sectors for which we have information, Tata consolidated its operations in 23 sectors, Birla in 22 sectors, Reliance in 16, and Mahindra in 14. L&T, TVS, Piramal, OPJ, and Godrej have consolidated their operations in 12, 11, nine, nine, and nine sectors each. This needs to be read in the context of the diversification and conglomerate characteristics of the Indian business groups.

We have further examined the type of consolidation in which the top business groups are involved. The data revealed that the top business groups remained as acquirers rather than as targets. Out of the total 106 transactions of Tata, except for 22 transactions, for 73 transactions Tata remained as the acquirer, which makes 69 percent of the transactions involved by Tata. In the case of another 10 transactions, Tata remained as both target and acquirer, in other words, it was a consolidation within the group. Hence, this needs to be it was in the acquiring role, in ten percent (eight transactions) it was in the target role, and the rest were related transactions. A similar trend is seen in the case of Reliance, Essar (Ruia), Godrej. Reliance was in acquiring role in 74 percent (51) of the transactions and in target role in 19 percent (13) of the deals. Related transactions are seven percent of the deals

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[8] Data in parenthesis shows the total number of deals and the number of majority transactions respectively.

[9] A more detailed discussion on M&As undertaken by business groups is available in Saraswathy (2019).

(5). In Birla's case, only 51 percent of the deals (23) were made in an acquiring role. Target 12 transactions and in another 10 transactions, it was related transactions. Similar trend is visible for other top groups as well. In Wipro's case, out of 32 deals, Wipro was in acquiring role in 31 cases. In only one case, it remained in the target role. Hence, in general, it can be said that the top business group's involvement in business transactions was mainly to acquire other companies or to complement the existing resources by purchasing the assets of other companies.

The next important question is, Where are the groups consolidating their operations? Are they engaged in foreign transactions or domestic transactions? How many of them are acquiring firms abroad? We tried to answer such questions with the available information. It is seen that the top consolidation intensive groups like Tata, Mahindra, Reliance, Godrej, and Wipro are engaged in a large number of outbound transactions, along with their inbound and domestic presence in consolidation activities. Interestingly, the number of groups in inbound transactions is very less compared to the domestic deals and outbound transactions, which may be indirectly indicating that the group affiliation enables firms to withstand competition from foreign firms compared to their independent standalone peers. There were 266 outbound acquisitions undertaken by the top groups, while the number of inbound acquisitions is only 83. Mahindra has undertaken 42 outbound transactions, whereas it is involved only in four inbound acquisitions. Tata has made 41 outbound transactions and 15 inbound transactions. Wipro has 24 outbound transactions; and no inbound transaction was noticed. Reliance and Godrej have 18 outbound transactions each, and only 12 and 4 inbound transactions respectively. Within the domestic deals, dominant groups involved are Tata (50 deals), Reliance (39), Mahindra (36), Birla (32), L&T (23), Essar (Ruia) (22), and so on.

In general, it is observed that a large number of unlisted firms in India are involved in the consolidation scenario. Saraswathy (2016) observed that 95 percent of the cross-border M&As in India belong to unlisted firms. However, such large-scale involvement of unlisted firms is not visible in the case of the top group's consolidation. The frequency of unlisted firms is 42 percent of all transactions in the case of Tata, 16 percent for Mahindra, 36 percent for Reliance, 60 percent for Birla, 79 for Essar (Ruia), 23 for Godrej, and so on. The same trend is applicable for other groups as well.

5.3. Product-wise Concentration with Ownership characteristics

Normally, product market concentration is measured in terms of firm-level concentration, i.e. the share of sales or assets held by the top firms in the relevant sector. This is one of the crucial indicators for competition assessment, which is also used by the competition regulators across the globe. Here, the ownership of firms is not emphasised while analysing the competition. Most of the business groups have multiple affiliate group companies that exist in the same industry group. This is also noticed by earlier studies on business groups such as Mazumdar (2008). Further, many group companies are present in multiple sectors. In this context, the point made by Chaudhuri (1975) regarding localised or product-wise concentration becomes relevant. Chaudhuri (1975) observed that, though product-wise concentration is important and reveals glimpses of the nature and the extent of the concentration of economic power, it is inadequate for a full understanding of the problem. As the economy grows, the product-wise concentration may show a declining trend. And most importantly, the economic power exercised by the top business groups is not only on a particular product or group of products, but also over a large number of economic activities simultaneously.

Here, the study examined the product market concentration with ownership criteria for three sub-sectors (i) basic metals, (ii) machinery, and (iii) automobiles. In order to give a clearer view, we have further disaggregated the sub-sector in some cases. For example, ferrous metals is examined from basic metals sector, and from the automobile sector (i) automobile parts and accessories and (ii) other transport equipment are examined. Major observations from the data analysis are as follows.

Table 5 shows the share of Tata and OP Jindal in ferrous metals over time. Tata and OP Jindal have a large number of firms operating in the ferrous metals segment. Tata was having a sales share of 15.4 percent in the 1990s, which peaked at 16 percent in the year 1993. Thereafter, Tata's share gradually declined and became ten percent in the year 2015. From there, it again saw a rising trend. In 2019, the share is 14 percent. On the other hand, OP Jindal was having a meagre three percent in 1990, which increased to 22 percent in the year 2019. When we do a firm-level analysis, the top Tata group firm in the ferrous sector, i.e. Tata Steel has only a 9.5 percent share in 2019, whereas the same for Tata as a group in the ferrous segment is 14 percent. Similarly, the share of JSW Steel, which is the top OP Jindal group firm in the sector is only ten percent in 2019 (Table 6), and that of OP Jindal as a group is 20.7 percent as it can be seen from Table 5.

Table 5: Ferrous Metals: Ownership wise Concentration of Sales and Assets by Tata and OPJ (%)

	Tata Group		*OP Jindal Group*		*Tata + OP Jindal*	
	sales	*assets*	*Sales*	*Assets*	*Sales*	*Assets*
1990	15.4	15.2	2.9	2.0	18.3	17.2
1991	15.2	11.2	2.7	1.7	17.9	12.9
1992	15.7	13.0	2.4	2.0	18.1	14.9
1993	16.1	14.0	3.0	2.6	19.1	16.6
1994	15.2	13.7	3.5	3.9	18.7	17.6
1995	14.6	11.9	4.0	8.4	18.6	20.3
1996	15.2	12.2	5.6	7.2	20.7	19.4
1997	15.1	12.0	5.4	8.8	20.5	20.8
1998	15.8	11.8	5.5	10.7	21.3	22.5
1999	14.1	12.0	6.4	13.6	20.4	25.6
2000	14.0	13.0	6.1	15.4	20.0	28.4

	Tata Group		OP Jindal Group		Tata + OP Jindal	
	sales	assets	Sales	Assets	Sales	Assets
2001	14.1	13.1	9.3	16.5	23.4	29.6
2002	14.3	13.1	9.8	18.1	24.0	31.2
2003	13.6	12.6	13.6	18.9	27.2	31.5
2004	13.1	12.9	13.6	19.8	26.7	32.7
2005	12.4	12.4	13.5	17.6	26.0	30.0
2006	12.4	11.8	13.0	19.1	25.4	30.8
2007	11.3	14.9	14.7	17.6	26.1	32.5
2008	10.4	19.2	14.3	17.1	24.7	36.3
2009	10.8	19.4	13.3	17.2	24.0	36.6
2010	10.6	18.2	15.7	16.3	26.3	34.5
2011	11.2	19.1	15.4	16.8	26.7	35.9
2012	11.2	18.6	16.7	17.2	27.9	35.8
2013	11.5	18.5	17.3	16.6	28.9	35.1
2014	11.0	18.6	17.1	16.1	28.1	34.7
2015	10.7	17.8	16.9	16.6	27.6	34.4
2016	11.4	17.5	16.1	18.6	27.5	36.1
2017	13.0	18.4	19.1	18.5	32.1	36.9
2018	13.5	18.7	20.2	20.2	33.8	38.9
2019	14.0	19.7	20.7	22.0	34.7	41.7

Source: Calculated using PROWESS, CMIE.

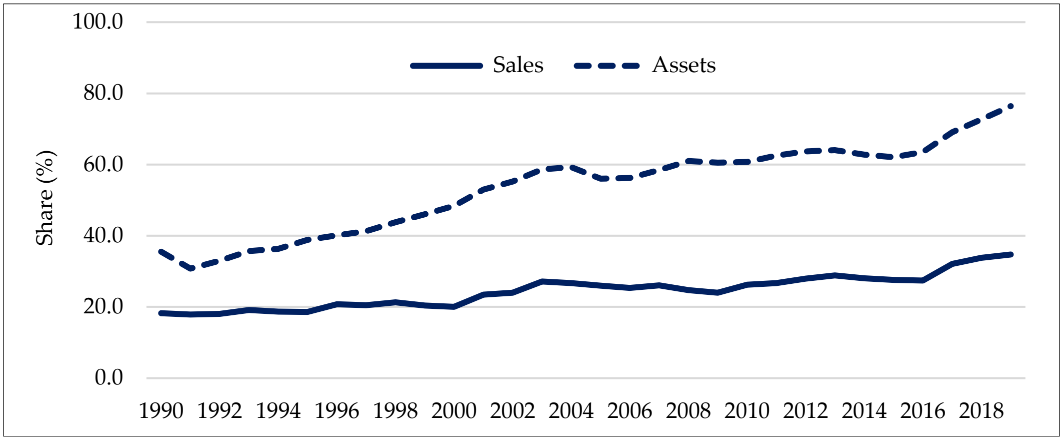
Table 6: Market Share of Top Group's Affiliated Companies in Ferrous Metals (2019)

Company	*Sales (Rs. Mn)*	*Market Share (%)*
Tata steel	706109.2	9.50
JSW steel	767640	10.32

Source: Calculated using PROWESS, CMIE.

The combined sales share of the Tata group and OP Jindal group in ferrous metals is 34.7 in 2019 compared to 18 percent in 1990. This shows a clear increasing trend over time and the strong presence of the two groups in the ferrous segment. The two groups control 35 percent of the sales generated and 42 percent of the total assets in the segment. Asset-wise also, there has been an increasing trend compared to 1990s. In 1990, the combined presence of these two groups was only 17 percent – much of which was contributed by Tata at that time – which increased to 42 percent in 2019. In 2019, the contribution of Tata increased to 20 percent compared to the 1990 share of 15 percent. For OP Jindal, the assets share was only two percent in 1990, which is now 22 percent. The increasing presence of Tata and OP Jindal is shown in Figure 2. The next coming groups are Essar (Ruia) and Godrej. When we add these two groups, the presence of the top four groups in the sector, based on sales share, becomes 41 percent.

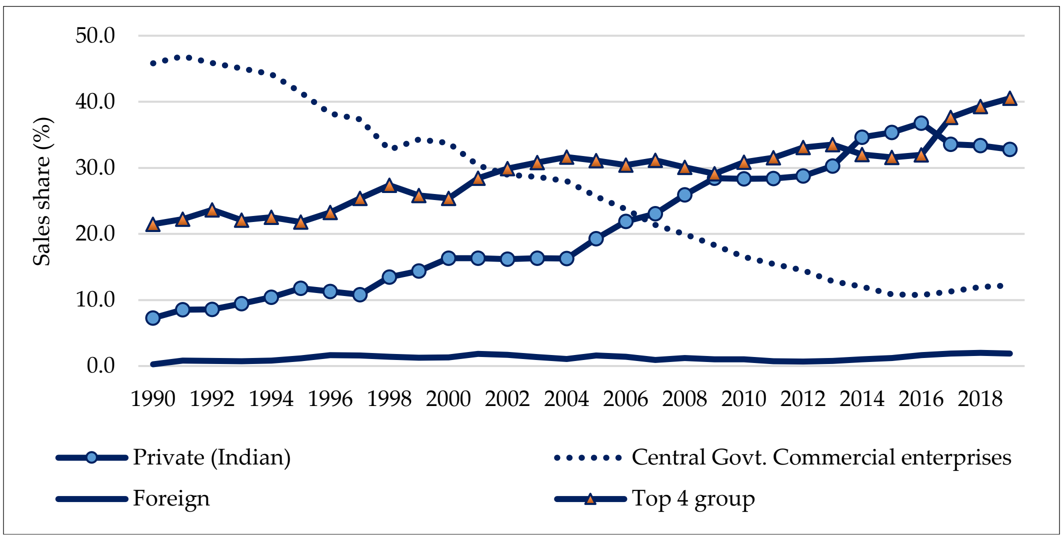
Figure 2: Tata and OP Jindal Groups in Ferrous Metals



Source: Calculated using PROWESS, CMIE

This sector has got a strong presence in public sector units, too. The central government commercial enterprises controlled 46 percent of the market in 1990. However, the share of public sector enterprises is gradually declining and now it has got only around 12 percent sales-based market share (Figure 3). From the figure, the increasing presence of top business groups and standalone domestic firms are visible. Here, the presence of foreign firms is limited.

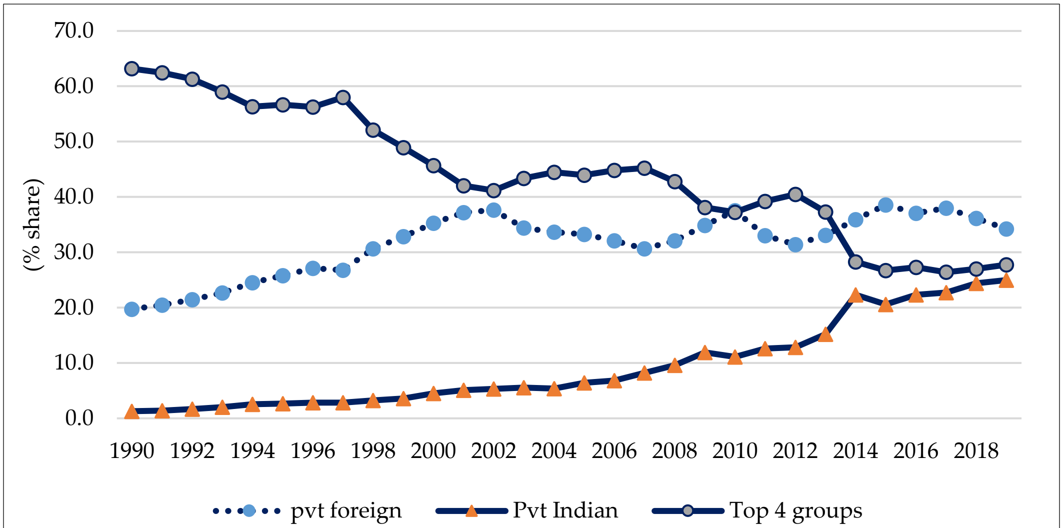
Figure 3: Ferrous Metals: Presence of Foreign Firms and Groups



Source: Calculated using PROWESS, CMIE.

Next, the study examined the automobile sector. Unlike the basic metals sector, in the automobiles sector there has been a declining trend in the value of sales and assets of the top groups. The combined share of the top two groups in 1990 was 43 percent, which declined to 21 percent in 2019. Similar to that, the shares of the top four groups declined to 28 percent from 63 percent for the same period. It is noticed that the presence of foreign-owned firms is increasing in this sector over time (Figure 4). This indirectly indicates the competitive pressure exerted by foreign firms on traditional Indian business groups. Major firms that come under the foreign category are Maruti Suzuki, Hyundai Motor, Toyota Kirloskar, Honda Cars, and so on. This is true that the standalone private Indian firm's presence in the sector is also increasing gradually. The share of Tata, Mahindra, Hinduja (AL), and TVS Iyengar declined compared to their presence in 1990. This declining trend is visible for assets based analysis, too. When the firms are taken separately, Maruti Suzuki comes at the top with around 12 percent market share. Tata Motors comes second with around ten percent share. Mahindra & Mahindra comes third with a seven percent share. Hence, the market shares become even less when the affiliated companies are taken separately. Being part of the group gives more stranglehold in the sector through multiple firms.

Figure 4: Motor Vehicles Trailer and Semi-Trailer: Market Share of Foreign and Indian Owned Firms



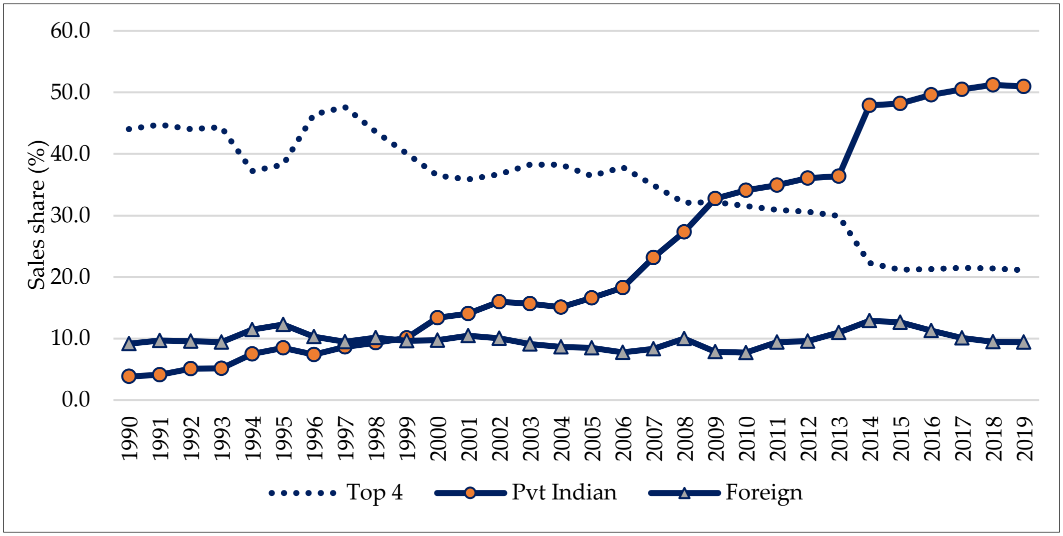
Source: Calculated using PROWESS, CMIE.

The study further examined the sales-based concentration levels with ownership categorisation for the motor vehicle parts and accessories. In general, this product comes under the less concentrated category (Saraswathy, 2020). In this segment, the current top groups are TVS Iyengar, Samvardhana Motherson, Tata, Hero (Munjal), and Anand DC. Here, too, the share of top two, top three, top four, and top five groups are declining over time.[10] However, individual groups like Motherson and Tata improved their position compared to the 1990 figures. During the early 1990s, the presence of Motherson was very limited through Motherson Sumi Systems. New companies affiliated in the mid-1990s and now the share is five percent compared to the near-zero in 1990. Tata's presence is also the same as that of Motherson in this segment.

[10] Table available on request.

Figure 5 shows the market shares owned by foreign firms, private standalone Indian firms, and the top Indian business groups. It can be seen that the share of top groups is declining over time whereas the major gainers are standalone domestic firms. The share of foreign firms is more or less the same over time. Hence, here it is mainly the entry and expansion of the domestic Indian firms that increase the competitive pressure on the top business groups.

Figure 5: Motor Vehicles Parts and Accessories: Presence of Foreign Firms and Domestic Groups

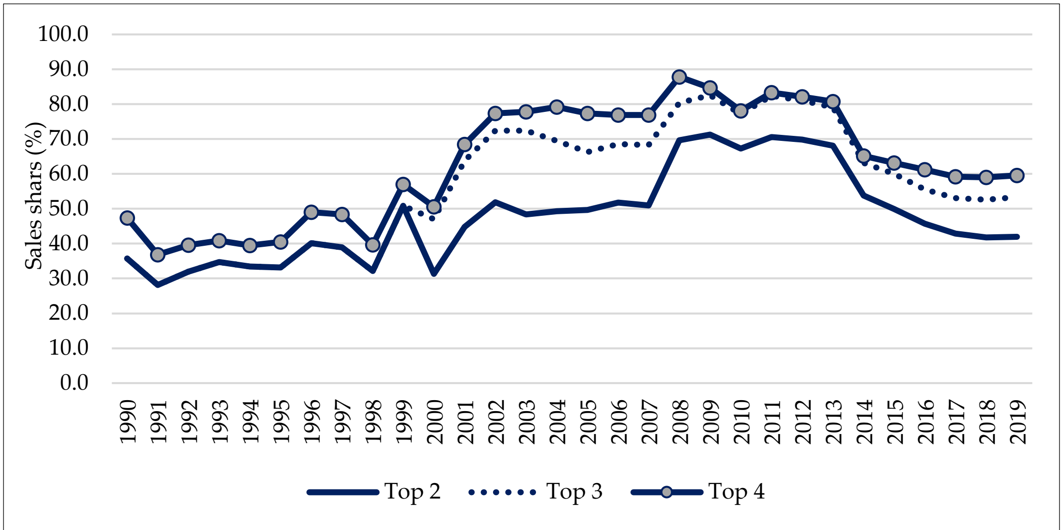


Source: Calculated using PROWESS, CMIE.

A similar estimate is done for the other transport equipment, which includes the manufacture of railway locomotives, manufacture of air and spacecraft & related, manufacture of weapon and ammunition, the building of ships and boats, and manufacture of other transport equipment. Here, the share of the top two groups was 36 percent, which increased to 42 in 2019. It showed an increasing trend, in general, till 2010–11, and it was as high as 71 percent in the year 2010–11, which declined to 42 percent in 2019. Similarly, the share of the top three groups was 36 percent in 1990, which increased to 53 percent in 2019. The share was very high in some years. For example in 2011, it was 82 percent. The top four groups control 60 percent of the sales revenue of the segment now. This was only 47 percent in 1990. Hence, unlike the motor vehicle production segment, the picture in other transport equipment is more concentrated when the top groups are considered together[11] (Figure 6).

[11] Table available on request.

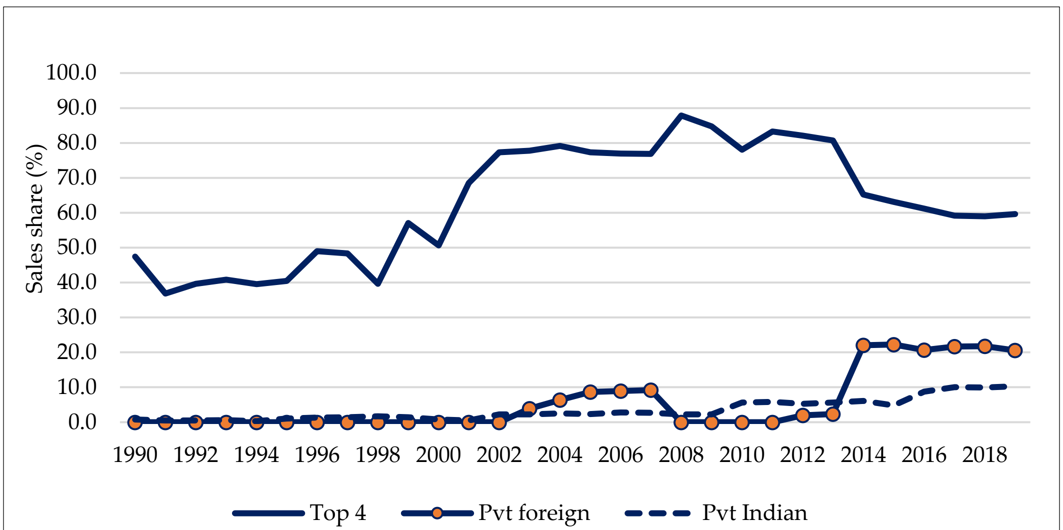
Figure 6: Transport Equipment: Groups' Share in Sales (%)



Source: Calculated using PROWESS, CMIE.

When we look at the foreign presence in this segment, it was minute till the year 2013, whereafter it shows an upward presence (Figure 7). It is visible from the figure that a substantial market of these products is owned by the top four groups, though the share is declining in recent years. The share of private Indian standalone companies is also very low, but it presents an increasing trend in recent years. Hence, the declining presence of top groups in recent years is explained by the upward movements of both foreign and standalone firms.

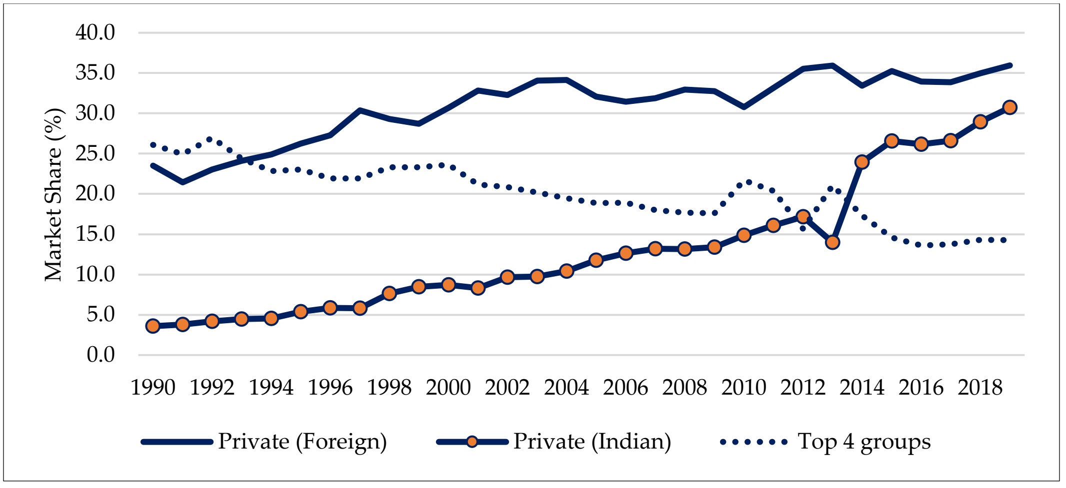
Figure 7: Transport Equipment: Presence of Foreign Firms and Top Groups



Source: Calculated using PROWESS, CMIE.

Next is the machinery sector, in which the top groups are Tata, Amalgamation, Kirloskar, and Escorts. This sector comes under the less concentrated sector in general (Saraswathy, 2020). Likewise the automobile sector, here, too, the traditional groups are facing stiff competition. The current top two groups had only around 13 percent hold in 1990 in this sector, which is now around ten percent. The corresponding figures for the top four groups are 26 and 14 percent respectively for 1990 and 2019. All four groups mentioned above lost their market shares over time compared to the 1990 figures. What is more important to note is the increasing presence of foreign firms (Figure 8). In 1990, foreign firms controlled only around 24 percent of the market in this sector, which is 36 percent in 2019. Similarly, there has been an increase in the share of other standalone domestic firms, too. The share of standalone private Indian firms was nearly four percent in 1990, which increased to 31 percent in 2019, whereas the share of top business groups declined during this period. Thus, the competition in the sector increased with the increasing pressure from foreign firms and domestic standalone firms, which may be the reason for less concentration in this sector, too.

Figure 8: Machinery: Market Share of Foreign Firms and Top Business Groups



Source: Calculated using PROWESS, CMIE.

6. Conclusions and Policy Points

Widening income and wealth inequality has been an important social concern in India. An initial part of this study has shown that the business groups own a substantial share of assets, sales, and profit in India (Saraswathy, B and Nida 2021). In brief, what emerges from the foregoing discussion on product level concentration of top business groups is that the presence of business groups is increasing in products like basic metals and other transport equipment. "Wherever the presence of top domestic groups is increasing, the presence of foreign firms is coming down," which essentially indicates the need to realise the potential of business groups. In less concentrated sub-sectors like motor vehicles and machinery, the market shares owned by the top business groups are declining. Standalone firms are also increasing their presence in these areas. This may be the reason for a less concentrated structure in these sectors, too. Further, it is observed that the market shares are higher when we consider the affiliate companies as a group, rather than as standalone firms. This may be the reason why these firms could sustain in the market compared to the standalone firms.

Competition regulation in its current form is mainly focusing on the concept of 'economic efficiency' and not addressing the 'social fairness' concept comprehensively. The involvement of business groups in consolidation activities results in multiplier effects as they are already part of a diversified and well-structured umbrella of business with horizontal and vertical linkages. It is seen from the study that many affiliated companies of the business groups are operating in the same business activity. All of them are not contributing to the substantial sales revenue for the same segment. It is also noticed that many of these affiliated companies provide forward and backward linkages in the production within the same sector.

Apart from the general implications of M&As reflected in market shares and market competition, these types of synergies derived through ownership are important in efficiently utilising the materials and such other resources under a common umbrella of business. This was crucial to withstand competition from foreign firms and emerging standalone firms. The study suggests the business groups strategically use M&As to become globally competitive firms through deriving horizontal and vertical linkages. At the same time, the regulators need to ensure that it does not lead to the concentration of assets in few hands at the aggregate level, which is likely to harm market competition across various products in the future.

References

Alvaredo, Facundo *et al*. (2018), *World Inequality Report 2018*, Harvard University Press.

Anand, Ishan and Anjana Thampi (2016), “Recent Trends in Wealth Inequality in India,” *Economic & Political Weekly*, Vol. 51, No. 50, p. 59.

Banerjee, Abhijit and Thomas Piketty (2005), “Top Indian Incomes, 1922–2000,” *The World Bank Economic Review*, Vol. 19, No. 1, pp. 1–20.

Beena, P L (2008), “Trends and Perspectives on Corporate Mergers in Contemporary India,” *Economic & Political Weekly*, Vol. 43, No. 39, pp. 48–56.

Bertrand, Marianne, Paras Mehta, and Sendhil Mullainathan (2002), “Ferreting Out Tunneling : An Application To Indian Business Groups,” *The Quarterly Journal of Economics*, Vol. 117, No. 1, pp. 121–148.

Chancel, Lucas and Thomas Piketty (2019), “Indian Income Inequality, 1922-2015: From British Raj to Billionaire Raj?” *Review of Income and Wealth*, Vol. 65, No. 1, pp. S33–S62.

Chaudhari, Asim (1980), “Conglomerate Big Business Groups in India: Some Traits of Tycoon Capitalism,”*Social Scientist*, Vol. 8, No. 7, pp. 38–51.

_____ (1975), *Private Economic Power in India: A Study in Genesis and Concentration*, People’s Publishing House, New Delhi.

Doytch, Nadia and Merih Uctum (2012), “Sectoral Growth Effects of Cross-border Mergers and Acquisitions,” *Eastern Economic Journal*, Vol. 38, No. 3, pp. 319–330.

EPW (1967), “Industrial Planning and Licensing Policy Summary of the Hazari Report,” *Economic & Political Weekly*, Vol. 2, No. 16, pp. 746–748.

Galbraith, Jay R (1998), “Strategy and Organisation Planning”, in H. Mintzberg and J.B. Quinn. *Readings in the Strategy Process,* Prentice Hall International Inc. pp. 134-42.

Ghemawat, Pankaj and Tarun Khanna (2012), “The Nature of Diversified Business Groups : A Research Design and Two Case Studies,” *The Journal of Industrial Economics*, Vol. 46, No. 1, pp. 35–61.

GoI (1965), *Report of the Monopolies Inquiry Commission, 1965*, Government of India Press, New Delhi.

Granovetter, Mark (1994). “Business Groups,” in Neil J Smelser and Richard Swedberg (Eds) *The Handbook of Economic Sociology*, Princeton University Press, New York, pp. 453–475.

Hazari, Rabindra Kishen (1967), *The Structure of the Corporate Private Sector: A Study of Concentration, Ownership and Control*, Asia Publishing House, Bombay.

Jayadev, Arjun, Sripad Motiram, and Vamsi Vakulabharanam (2007), “Patterns of Wealth Disparities in India during the Liberalisation Era,” *Economic & Political Weekly*, Vol. 42, No. 38, pp. 3853–3863.

Kakani, Ram K, Santosh Sangem, and Madhvi Sethi (2015), *Indian Business Groups: Strategy and Performance*, Foundation Books, New Delhi.

Kar, Rabi N and Amit Soni (2008), "Mergers and Acquisitions in India: A Strategic Impact Analysis for the Corporate Enterprises in the Post Liberalisation Period," IGIDR Working Paper 2008-31. Retrieved from: http://www.igidr.ac.in/conf/money1/MERGERS AND ACQUISITIONS IN INDIA.pdf

Khanna, Tarun and Krishna G Palepu (2005), "The Evolution of Concentrated Ownership in India: Broad Patterns and a History of the Indian Software Industry," in Randall K Morck (Ed), *A History of Corporate Governance around the World: Family Business Groups to Professional Managers*, University of Chicago Press, pp. 283–324. Available at: https://doi.org/10.3386/w10613

_____ (2012), "The Future of Business Groups in Emerging Markets : Long-Run Evidence From Chile," *Academy of Management Journal*, Vol. *43, No.* 3, pp. 268–285. Available at: https://doi.org/10.2307/1556395

Kumar, Vikas, Ajai S Gaur, and Chinmay Pattanaik (2012), "Product Diversification and International Expansion of Business Groups: Evidence from India," *Management International Review*, Vol. 52, No. 2, pp. 175–192. Available at: https://doi.org/10.1007/sl

Leff, Nathaniel H and Frank C Child (1976), "Capital Markets in the Less Developed Countries: The Group Principle," in Ronald I McKinnon (Ed), *Money and Finance in Economic Growth and Development: Essays in Honour of Edward S Shaw*, Dekker, New York, pp. 97–122.

Lianos, Ioannis (2020), "Competition Law as a Form of Social Regulation," *The Antitrust Bulletin,* Vol. 65, No. 1, pp. 3–86.

Mazumdar, Surajit (2008), "The Analysis of Business Groups: Some Observations with Reference to India," Working Paper No. 2008/11, Institute for Studies in Industrial Development, New Delhi.

_____ (2010), "Big Business and Economic Nationalism In India," Working Paper No. 2010/09, Institute for Studies in Industrial Development, New Delhi.

Ray, Sougata, and Sathyajit R Gubbi (2009), "International Acquisitions by Indian Firms: Implications for Research on Emerging Multinationals," *Indian Journal of Industrial Relations*, Vol. 45, No. 1, pp. 11–26.

Saez, Emmanuel (2004), "Income and Wealth Concentration in a Historical and International Perspective," in Alan J Auerbach, David Card, and John M Quigley (Eds) *Poverty, the Distribution of Income, and Public Policy: A Conference in Honour of Eugene Smolensky*, Russel Sage Foundation, New York.

Saraswathy, Beena and Nida Rahman (2021), "Emerging Trends in the Operation of Business Groups in India: A Post Reform Period Analysis," Working Paper No. 236, Institute for Studies in Industrial Development, New Delhi.

Saraswathy, Beena (2021), "Economic Reforms and Market Competition in India: An Assessment," *The Antitrust Bulletin,* Vol. 66, No. 2, pp. 184–202.

_____ (2019), "Consolidation activities of Big Business Groups in India," in Anil Kumar Sinha *et al*. (Eds) *Advances in Management and Technology*, Bloomsbury, New Delhi.

_____ (2021), *Changing Dimesnsions of Business Group Strategies in India: An Inquiry from the Lens of Mergers and Acquisitions'*, Poject Report submitted to ICSSR, New Delhi.

Sarma, Mandira, Partha Saha, and Nandini Jayakumar (2017), "Asset Inequality in India: Going from Bad to Worse," *Social Scientist*, Vol. 45, No. 3/4, pp. 53–67.

Swaminathan, Padmini (1985), "Business Houses in South India: A Case Study of the Structure and Functioning of the TVS Group," Working Paper No. 59, Madras Institute of Development Studies, Chennai.

Turner, John D (2010), "Wealth Concentration in the European Periphery: Ireland, 1858–2001," *Oxford Economic Papers*, Vol. 62, No. 4, pp. 625–646.

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