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W14478

MARUTI SUZUKI INDIA LIMITED: SUSTAINING PROFITABILITY[1]

Ramakrushna Panigrahi wrote this case solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.

> At Maruti Suzuki, our endeavour is to make sustainability a way of life where all business decisions are taken in consideration of their impact on the environment and society, in addition to the return on investment. We believe in sharing our best practices and learnings with business partners so as to create a multiplier effect.[2]
>
> -S. Nakanishi, former managing director and CEO, Maruti Suzuki India Limited

After India opened up its economy in the early 1990s, the Indian automobile industry witnessed intense competition. Maruti Suzuki India Limited (Maruti) had been a dominant player in the Indian automobile industry since it began operations in 1981. Maruti was so popular that in India people had long used the word "Maruti" as a synonym for "car." Maruti had experienced a dream run for three decades, achieving the largest market share in the passenger car industry in India. But for the first time after 28 years of consistent growth, Maruti experienced a fall in sales volume in 2012 (see Exhibit1). Even in 2014, after two years, it had not yet recovered. Maruti had little control over pricing, given the fierce competition in the sector. Despite the price of cars remaining stagnant over the last decade, Maruti and its competitors were experiencing declining sales.[3] Prices of fuel had adversely affected demand. Input costs for manufacturing were increasing year after year. With such a dismal outlook for the automobile industry and with poor price maneuverability, how long could Maruti sustain profits? The chairman had to decrease the costs of manufacturing and he was considering building a state-of-the-art plant in Gujarat.[4] Would this reduce costs enough to help Maruti become more profitable?

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[1] This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of Maruti Suzuki India Limited or any of its employees.

[2] Maruti Suzuki India Limited, "Sustainability Report 2010/11," p.6, http://marutistorage.blob.core.windows.net/marutisuzukipdf/MSIL-CSR-10-11.pdf, accessed September 20, 2014.

[3] "Maruti Suzuki, Hyundai, Honda, Renault to Hike Car Prices By April 1," Overdrive, March 28, 2014, http://overdrive.in/news/maruti-suzuki-hyundai-honda-renault-to-hike-car-prices-by-april-1, accessed September 10, 2014.

[4] Surajeet Das Gupta, "Purchasing Power to Buy a Car Has Been Eroded: R C Bhargava," Business Standard, April 23, 2014, www.business-standard.com/article/companies/purchasing-power-to-buy-a-car-has-been-eroded-r-c-bhargava-114042300139_1.html, accessed September 10, 2014.

INDIAN PASSENGER CAR MARKET

The Indian passenger car market was the fastest growing in Asia, driven by India's large population of 1.28 billion and a low penetration of fewer than 12 cars per 1,000 people (see Exhibit 2). Prior to the 1990s, the Indian automobile sector was in poor shape compared to the automobile sectors in other countries, largely because of demand-side constraints such as the low purchasing power of the average Indian consumer. Before India's economic liberalization, the majority of India's population could not afford to buy a car, and car penetration was less than three per 1,000 people. After liberalization, with rising income levels of middle-class families, the demand for passenger cars went up steadily over the next 20 years. However, car penetration was still very low compared to in Brazil, Russia, China and developed countries (see Exhibit 2). From a supply-side perspective, the automobile industry had greatly benefited from liberalization, as international automobile manufacturers took advantage of India's affordable yet highly trained engineers, establishing manufacturing operations throughout the country. Due to India's huge pool of talent and rising income levels, India's passenger car market had grown in terms of production and sales and was expected to grow further in coming years.[5]

Passenger vehicles in India could be broadly divided into three segments — passenger cars, utility vehicles and multi-purpose vehicles — with passenger cars contributing around 80 per cent of total sales volumes. As of 2014, this segment was expected to grow at a compound annual rate of 15 per cent for the next 15 to 20 years. Apart from domestic growth, automobile exports from India were predicted to grow at 12 per cent. It may be noted here that, in a low per capita income country like India, two-wheelers (motorcycles and scooters) constituted a major mode of transportation for the lower middle class, who would eventually graduate to the small-car segment. In most cities and towns, due to the poor quality of roads and excessive traffic congestion, motorcycles were the first choice for daily commutes. However, a car was considered a prized possession for a middle-class Indian family, even though it was not used on a daily basis. With rising income levels, this held great promise for car manufacturers, as fewer than 12 people per 1,000 owned a car in India, reflecting huge market potential.

MAJOR COMPETITORS OF MARUTI

There were many players in the passenger car segment in India. Some of these players were domestic, such as Maruti, Tata and Mahindra. Others such as Hyundai, Honda and Toyota were from other Asian countries. The two companies with the largest market share in India were Maruti, at 49 per cent, and Hyundai, at 21 per cent (see Exhibit 3 for trends in the market share of Maruti and its competitors). Although there were many players in the luxury segment of the market such as Mercedes-Benz, BMW and Audi, there were few buyers who had the income to support such purchases. There were other competitors for Maruti such as Ford, GM, Nissan, Renault, Škoda and Volkswagen that competed in mini- and mid-segment cars. These companies had taken considerable market share from Maruti in recent years.

MARUTI: THE COMPANY

Established in 1981, Maruti enjoyed the largest market share in the Indian passenger car segment. In 2014, Maruti, with two production facilities at Gurgaon and Manesar (both in the National Capital Region of Delhi), had a production capacity of more than 1.4 million units per year.[6] The production facilities had

[5] Though sales in India had slowed down due to the economic recession, they had still maintained a positive trend in the last two years.
[6] Maruti Suzuki India Limited, "Manufacturing Facilities," www.marutisuzuki.com/manufacturingfacilities.aspx, accessed September 18, 2014.

more than 12, 000 employees[7] and produced more than 16 automobile models,[8] each with multiple variants.[9] Examples of Maruti's product offerings included small cars like the Maruti Alto, Wagon R and A-Star. Small cars made up 41.2 per cent[10] of Maruti's total sales units. In the compact car segment, Maruti offered cars such as the Swift, Estilo, Ritz and Celerio. This segment made up 24 per cent of Maruti's total sales. In the mid-size segment, the company offered the SX4 and Dzire, which contributed 19.1 per cent of sales. The sport utility vehicle segment made up just 5.8 per cent of sales and contributed less to Maruti's profits than small and mid-segment cars. Finally, in the vans segment, the company was known for the Omni and Eeco, which contributed 9.6 per cent to its overall sales. The remaining sales came from other models of Maruti cars. From the Maruti 800 in 1983 up to the launch of the Celerio in February 2014, Maruti had rolled out model after model and exceeded customer expectations in terms of quality and value for money.

Maruti focused on three key strategies to generate sales. First and foremost, its pricing strategy was very competitive. For example, in the small car segment, the Maruti Alto was priced 10–20 per cent lower than competing models such as the Hyundai Santro, Tata Indica and Chevrolet Spark (see Exhibit4). Second, Maruti spent a great deal on research and development to create more fuel-efficient engines. This decreased the cost of owning a car for a consumer; Indian customers were very sensitive[11] regarding the fuel efficiency of vehicles, since fuel costs were high relative to average income levels. Third, Maruti offered reliable after-sales service, backed by its extensive service networks.[12] There were more than 15 competitors in the market and it was never easy for a company to retain more than 40 per cent of the market share. But Maruti had done it consistently over three decades. Maruti cars enjoyed a unique position in the Indian consumer's mind. Maruti scored higher than its competitors in terms of price, fuel efficiency and reliability, and its sales were boosted by the promise of efficient after-sales service. The uncertainty of getting stuck on Indian roads due to machinery failure was effectively exploited by Maruti. As Maruti had a network of 3,053 service stations in 1,449 Indian cities, its promise of reliability was unmatched by any of its competitors. In terms of fuel efficiency, Maruti cars provided an average of three kilometres more per litre of petrol/diesel compared to its competitors. The resale value of Maruti cars was also far higher than that of any of its competitors. Maruti offered its True Value used-car business, with more than 454 True Value outlets in 255 Indian cities, reassuring its customers that they would attain the highest resale value from any Maruti brand. For an Indian middle-class family planning to buy a new car, Maruti was the first and most obvious choice.

COMPETING WITH MARUTI CARS

Maruti had implemented very few price increases in its passenger car segments over the last 10–12 years. Nonetheless, competitors had emerged in each of these segments. Out of Maruti's 16 car models, each model had anywhere from one to seven close competitors from Hyundai, Tata Motors, Volkswagen, Toyota, Honda or Chevrolet (see Exhibit 5). However, despite intense competition, Maruti had retained its leadership position in most segments. In fact, it was so pervasive a brand that some of its models competed

[7] Maruti Suzuki India Limited, "Annual Report 2013/14," https://marutistorage.blob.core.windows.net/marutisuzukipdf/Maruti%20AR%202014%20cover%20to%20cover%20dt%2006-08-14%20Deluxe.pdf, accessed September 18, 2014.

[8] Maruti Suzuki India Limited, www.marutisuzuki.com/range-of-cars.aspx, accessed September 18, 2014.

[9] Each Maruti car model had many variants such as Standard, LX, LXI, VXI, ZXI, LDI, VDI, ZDI, etc. The Standard variant of any model did not usually have air conditioning (AC) and power steering. The LX variant had AC, but did not have the power steering feature. The LXI had both AC and power steering. The VXI had power windows along with AC and power steering. The letter "D" in a variant represented a diesel engine and "X" denoted petrol as fuel. See www.zigwheels.com/newcars/Maruti-Suzuki/New-Swift#variants, accessed September 12, 2014.

[10] The percentages and other figures were calculated by the author based on Maruti's official website and annual reports, www.marutisuzuki.com/ and www.reportjunction.com/Reports/Maruti-Suzuki-India-Limited-M0763.htm, accessed September 18, 2014.

[11] The Indian customer's emphasis on fuel efficiency was evident from one of Maruti's advertisements, shown in the following video: "Maruti Suzuki KitnaDeti Hai - Juno," www.youtube.com/watch?v=tzW7Sxzkr1Y, accessed September 12, 2014.

[12] Maruti had an extensive service network. The ad in the following video underlines the strength of Maruti's after-sales service: "Maruti Suzuki Service-No Matter Where You Go Commercial," www.youtube.com/watch?v=EaiWDwEfMGM, accessed September 12, 2014.

among themselves. For example, its Alto model competed with the Maruti 800, and the Wagon R competed with the Ritz. Maruti had maintained its "people's car" image since its inception by strategically keeping prices low and positioning entry-level cars for first-time buyers. Mini-segment cars, which constituted more than 80 per cent of Maruti's total sales, carried price tags that were at least 20–30 per cent lower than those of their nearest competitors.

The bestselling mini-segment models of Maruti were the Alto and the 800. The prices of these cars had remained stagnant for a long time. In fact, in many instances, the prices of these cars had been reduced. For example, the launch price of the Alto LX model was INR299,000[13] in 2002, and the price was subsequently reduced year after year until 2009, when the price was INR257,000, a reduction of approximately 14 per cent after seven years. The price of the 800 model was INR281,000 in 2002, which was reduced to INR221,000 in 2010, a drop of 21 per cent. The price of the Wagon R was reduced from INR359,000 to INR338,000 during the same period. However, Maruti was able to increase the price marginally for the compact and mid-size segment cars over this period, which boosted the revenue of the company.

The passenger car market in India had witnessed intense price competition. It was so intense that not a single price change by any of the players had gone without a reaction from rival firms. If one looked carefully at all the models of the different brands, the intensity of the price war was evident. Specifically, in the case of the Maruti Alto, even Maruti's close competitors — Hyundai and Tata — could not raise the prices of their cars over the years; they had to reduce the prices of their models to retain market share. For example, in April 2004, when the price of the Maruti Alto fell by around 7 to 8 per cent, the Hyundai Santro price correspondingly fell by 4.6 per cent. Similarly, in June 2009, when the Maruti Alto price fell by 8.8 per cent, the Hyundai Santro price fell by 7.7 per cent, while the Tata Indica price fell by 9.8 per cent. Though it was never easy for car manufacturers to reduce prices, they were left with no choice but to sell their products at reduced or stagnant prices. Even for the mid-size and compact segments, Maruti could not increase price when it wished to due to price competition. Though the company had been able to retain its leadership position, its market share had fallen over the years due to the intense price competition.

In 2001, Maruti had total revenue of INR70.21 billion, which included other income with net sales. There was a steady rise in Maruti's revenue even though sales volumes fell from 2011 to 2014. In 2014, Maruti registered sales revenue of INR445.43 billion, a rise of more than 500 per cent in 14 years (see Exhibit6). Even though Maruti could not raise the prices of its mini-segment cars, the rise in sales revenue was mainly due to a rise in unit sales and marginal increases in the prices of its compact cars.

INPUT COSTS

The prices of raw materials for cars had risen significantly since 2001. Basic metal prices had increased sharply, except for the price of aluminum. Steel was the major raw material for cars, and the price of steel had increased by at least three times (see Exhibit7) since 2001.[14] Apart from steel, other inputs for automobiles such as copper, lead and rubber (see Exhibit7) had gone up in cost by at least 240 per cent. Even the price of aluminum had experienced a marginal rise of 7 per cent. The only raw material for which there had been no significant price rise was palladium, but its usage in car-making was relatively negligible. Apart from these materials, the prices of other materials and inputs such as electricity and fuel had gone up during the same period. The rise in input prices had been as much as 300–400 per cent. Specifically, steel and rubber prices had significantly raised the cost of production.

[13] The exchange rate in 2014 was approximately INR61/US$, www.oanda.com/currency/live-exchange-rates/USDINR/, accessed September 18, 2014.

[14] The prices of different grades of steel varied. An index of iron, steel and ferro alloys has been presented in Exhibit 7 to show the trend in price increases for steel, which is the most consumed raw material for automobiles. The base year of the index is 1993–1994. The index value has increased from 137 points to 412 points during 2001–2014. See UNCTAD STAT, http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=28768, accessed September 12, 2014.

Labour Costs

The cost of labour had gone up significantly due to the rise in general price levels (inflation) in India. Though Maruti depended heavily on contractual labourers to cut down on labour costs, it had to keep pace with the market in terms of compensation and perks in order to retain employees. The wage disparity between Maruti's regular employees and contractual employees in the past had led to HR issues that had given Maruti much bad publicity. The tragedies of the Manesar plant[15] had forced Maruti to revisit the compensation packages given to its employees. This had resulted in further rising employee costs. The employee cost had been a mere INR1.99 billion in 2001, but had risen to INR10.69 billion in 2013–2014 (see Exhibit6). It may be noted that along with Maruti's costs, the labour costs per unit for its competitors had also risen accordingly during the same time period.

Selling Costs

With the automobile sector being so fiercely competitive, Maruti needed to spend a lot on promotional activities. The distribution and channel costs had also risen with the rise in fuel prices.[16] For Maruti to retain its market share, it had to engage in extensive ad campaigns on television and through other promotional avenues. The cost of advertising on television had risen each year, resulting in increased spending on promotion. The promotion and television costs had risen from INR6.33 billion in 2001 to INR64.99 billion in 2014 (see Exhibit6). In per capita terms, expenses had risen from a mere INR18,069 to a whopping INR56,266 per car during the same period.

KEEPING DOWN COSTS

The automobile industry was at a crossroads where the costs of raw materials and operations continued to increase substantially without a corresponding rise in the prices of the products sold. For companies in this sector, it was very difficult to sustain profit levels that met the expectations of stakeholders and the market. It seemed that the solution lay in the implementation of more efficient production. As prices had remained sticky for an extended period of time and costs kept rising, firms needed to innovate to bring costs down. Manufacturers continued to add new features to their products and in the process discovered cost-cutting measures.

Maruti had been doing this successfully for more than two decades. However, in the scenario of rising costs, the company faced major challenges, as there was no cushion allowing it to pass on the burden to consumers. Any attempt on Maruti's part to raise prices was met with a price cut by its rivals. Yet the rival firms were also facing the same challenges; in fact, the challenges were worse for them than for Maruti. The only alternative for the manufacturers was to keep the costs of production down through increased efficiency. As increasing the price for most Maruti models was out of the question, the only solution lay in achieving technical efficiency and economies of scale. The gap between the average cost and the price was quickly shrinking for each model. Therefore, to remain relevant in the market, Maruti had to innovate constantly to cut down costs and achieve the right scale of production. Achieving economies of scale was the only solution in the face of rising input and labour costs.

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[15] In July 2012, a strike by Maruti's workers to settle wage disparity demands led to one person being killed and at least 100 company officials being injured. This resulted in a huge production loss for Maruti. See Amrit Raj, "What triggered the violence at Maruti's Manesar factory?," Live Mint, July 20, 2012, www.livemint.com/Companies/IRKRrq32VAFYpL1mGieWYK/What-triggered-the-violence-at-Maruti8217s-Manesar-factor.html, accessed September 12, 2014.

[16] The cost of transporting each car from Delhi to other parts of the country had gone up by 3.5 times between 2001 and 2014 due to rises in diesel prices and other prices.

FUEL PRICES AND DEMAND FOR PASSENGER CARS

The rise in the price of crude oil had not helped the cause of the automobile sector in India. Fuel prices had increased, which significantly impacted the growth of the sector. In 2014, while addressing the media, Maruti chairman R.C. Bhargava in fact put the blame for declining sales squarely on increases in the prices of petrol and diesel. These prices had increased by 20 per cent in the last two years, adversely impacting car sales. The price of petrol was deregulated in India and was linked to crude oil prices. The price of crude oil had increased from $25.64 per barrel in 2001 to around $110 per barrel in 2014 (see Exhibit7). Apart from the rise in crude prices, local taxes on petroleum products were very high in India, which further raised the prices. The diesel price was regulated and kept low through subsidies. This helped car manufacturers like Maruti to charge a premium on diesel cars. However, the price of diesel was slowly being deregulated in India. With a new union government that was firmly focused on reforms, the diesel price would soon be deregulated. Once this occurred, diesel variants of cars would lose their edge over petrol variants. The deregulated diesel price would further adversely impact the demand for automobiles in India.

PROFITABILITY

Maruti had been able to maintain a steady rise in profits despite challenges that were beyond the control of the company, such as increased costs and fuel prices that affected the demand for cars. In 2002, it posted a net profit[17] of INR1.04 billion, a mere 1.5 per cent of net sales. In 2014, Maruti's net profits had risen to INR27.83 billion or 6.3 per cent of net sales (see Exhibit6). Maruti remained focused on maximizing shareholders' wealth despite the competitive market environment. Each year, Maruti's financial results exceeded market expectations.

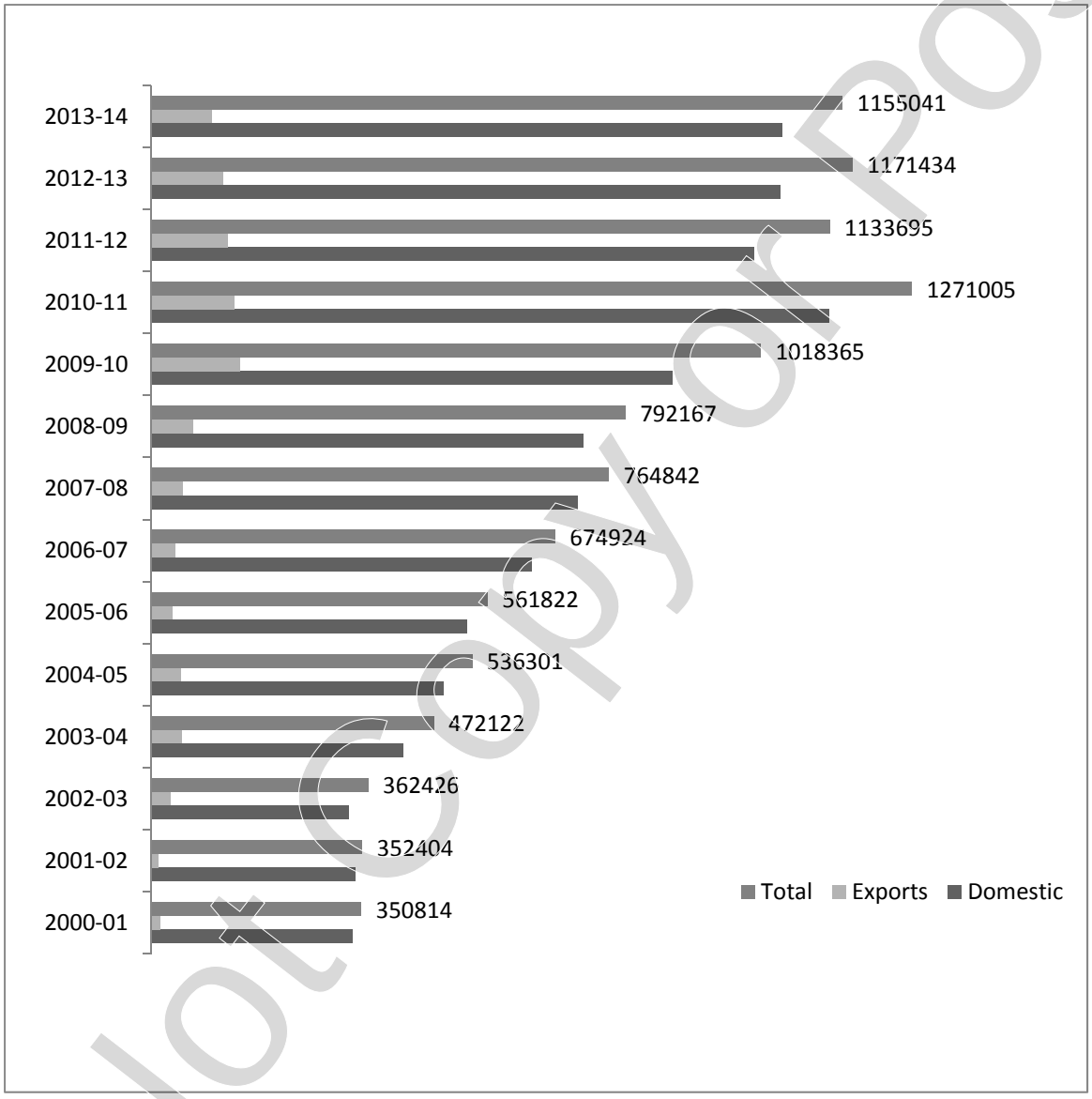
DECISION TO ENTER GUJARAT

Maruti had been contemplating entering Gujarat and setting up a plant with an installed capacity of 300,000 units per year with an investment of INR60 billion. It was expected that any new facility would be more efficient, as it would use the latest technology and subsequently the cost of production would be lower. Therefore, once operational, the facility would help Maruti achieve better economies of scale so that it could compete better and sustain its profits. However, setting up a new plant was a messy affair in India, with regulations related to everything from land acquisition to obtaining clearances from several ministries. The Tata Nano's Singur plant debacle[18] was still fresh in everybody's memory. Could R.C. Bhargava find a way to increase prices to achieve higher profitability, thus avoiding the capital expenditure of building a plant? Would the building of a new plant really sustain profits or would it take so long that it would not be worth the initial investment?

[17] Net profits were taken as profits after tax, depreciation and interest.

[18] The Tata Nano plant was moved from Singur in West Bengal to Sanand in Gujarat due to political protests. This resulted in huge losses for the company. See "Tata pulls out of Singur, blames Trinamool stir," The Financial Express, October 4, 2008, www.financialexpress.com/news/Tata-pulls-out-of-Singur-blames-Trinamool-stir/369241, accessed September 12, 2014.

EXHIBIT 1: DOMESTIC SALES, EXPORTS AND TOTAL SALES (UNITS) OF MARUTI CARS



Source: Various annual reports of Maruti; "Our Financials," Maruti Suzuki, www.marutisuzuki.com/financial.aspx, accessed September 12, 2014.

EXHIBIT 2: MOTOR VEHICLE PRODUCTION, CAR PENETRATION AND PER CAPITA INCOME OF SELECT COUNTRIES

Country	Motor Vehicle Production (in 2014)	Automobile Density (Cars per 1,000 People)	Per Capita Income in US$PPP in 2013–14
India	4,145,194	12	$3,843
China	19,271,808	44	$9,055
Brazil	3,342,617	178	$11,747
Russia	2,231,737	233	$17,518
U.K.	1,576,945	457	$36,569
France	1,967,765	481	$35,295
U.S.	10,328,884	423	$51,714
Japan	9,942,711	453	$35,855
Germany	5,649,269	517	$38,666

Note: Per capita income (PPP) refers to how many U.S. dollars are required to buy a pre-defined basket of commodities in different countries. It is different from the official exchange rate conversion of per capita income. It differs from country to country, based on the purchasing power of a currency in the domestic economy. For example, if one requires US$100 to buy a predefined basket in the United States, and if the same basket can be purchased in India for INR4,000, then the PPP exchange rate is INR40/US$1, whereas the official exchange rate is around INR60/US$1. Per capita income in US$PPP is a better indicator of the affordability of buying a car than nominal per capita income.
Source: The World Bank, "Passenger cars (per 1,000 people)," http://data.worldbank.org/indicator/IS.VEH.PCAR.P3, accessed September 12, 2014.

EXHIBIT 3: TRENDS IN MARKET SHARE OF MARUTI AND ITS COMPETITORS IN INDIA

(Market Share in Percentages)

Year	Maruti Suzuki	Hyundai Motors	Tata Motors	Mahindra & Mahindra	Toyota Motors	Others
2002	50	13	13	7	4	13
2003	46	15	15	7	4	13
2004	46	14	16	8	5	11
2005	46	13	17	8	4	12
2006	46	14	17	7	4	12
2007	46	14	16	6	4	14
2008	46	14	15	8	4	13
2009	47	16	15	8	3	11
2010	45	16	15	8	3	13
2011	45	14	14	7	3	17
2012	44	14	13	8	6	14
2013	49	21	6	7	3	13

Note: Figures were rounded off.
Source: Data compiled by the author from Society of Indian Automobile Manufacturers, www.siamindia.com/; ICRA Limited, www.icra.in/Files/ticker/PV-Industry-201103.pdf; Shally Seth Mohile, "Maruti Suzuki's Market Share Rises to Highest in Three Years," Live Mint, January 13, 2014, www.livemint.com/Companies/z2zcAjzlyOe1IlqMiRfkwJ/Maruti-Suzukis-market-share-rises-to-highest-in-three-years.html; and Ravi Kishore Oakuri, "Market Share of Automobile Companies in India 2013: Top Player in Industry," July 6, 2014, www.currentweek.com/market-share-of-automobile-companies-in-india-2013top-players-in-industry/. Sources accessed September 18, 2014.

EXHIBIT 4: EX-SHOWROOM PRICES OF MARUTI CARS AND COMPETITORS

(INR in hundred thousand)

Year	Maruti Alto LX	Maruti 800	Hyundai Santro	Tata Indica	Chevrolet Spark	Maruti Swift Dzire LXI	SX4 VXI
Aug-02	2.99	2.81	3.36	3.19	**	**	**
Apr-03	2.99	2.56	3.36	3.17	**	**	**
Nov-03	2.87	2.56	3.46	3.14	**	**	**
Apr-04	2.65	2.26	3.3	3.14	**	**	**
Aug-06	2.81	2.24	3.24	2.75	**	**	**
Sep-07	2.81	2.2	3.28	3.38	3.09	**	6.18
Oct-08	2.82	2.29	3.48	3.65	3.17	4.89	6.54
Jun-09	2.57	2.06	3.21	3.29	3.17	4.54	6.36
Feb-10	2.5	2.21	3.44	3.38	3.19	4.6	6.68
Oct-11	3.01	2.22	3.76	3.24	3.54	5.32	7.73
Apr-12	3.01	2.22	3.76	3.24	3.75	5.3	7.73
Sep-13	3.12	2.42	3.76	3.4	3.57	5.38	7.73
Apr-14	^^	^^	3.66	3.85	3.45	4.85	7.15

*Note: ** Prices were not available, as the cars were launched at a later date.*
^^ The Maruti 800 and the Alto were no longer in production.
The Alto LX model is considered to represent the Maruti Alto. The highest variant of the 800 is taken to represent the Maruti 800. The lowest-priced variant of the Santro model is considered to represent the Hyundai Santro. The lowest-priced variant of the Tata Indica is considered to represent the Tata Indica. The lowest-priced variant of the Spark is considered to represent the Chevrolet Spark. All prices are ex-showroom prices in Delhi in hundreds of thousands of Indian rupees.
Source: Data from Overdrive Magazine, from August 2002 to September 2013; April, 2014, http://overdrive.in/cars/, accessed September 18, 2014.

EXHIBIT 5: MARUTI'S COMPETITORS BY MODEL

Model	Launch Date	Competitors
800	1983	Tata Nano
Omni	1984	Tata Nano, Tata Venture
Gypsy	1985	Mahindra THARcRDe, Tata Sumo, Mahindra Xylo
Wagon R	1999	Nissan Micra Active, Hyundai i10
Alto	2002	Hyundai Santro, Chevrolet Spark, Tata Indica
Swift	2005	Tata Vista, Hyundai i20, ŠkodaFabia, Volkswagen Polo, Toyota EtiosLiva
SX4	2007	Ford Fiesta, Hyundai Verna, Honda City, Škoda Rapid, Volkswagen Vento, Renault Scala, Nissan Sunny
Swift Dzire	2008	Honda Amaze, Hyundai Xcent, Mahindra Verito, Toyota Etios, Ford Classic, Chevrolet Sail, Tata Manza
A-Star	2008	Chevrolet Beat, Nissan Micra Active, Ford Figo
Ritz	2009	Tata Vista, Hyundai Grand i10, Honda Brio, Nissan Micra, Renault Pulse, Toyota EtiosLiva
Eeco	2010	Tata Venture, Tata Winger
Alto K10	2010	Chevrolet Spark, Tata Indica, Hyundai i10
Ertiga	2012	Toyota Innova, Mahindra Xylo, Nissan Evalia, Tata Sumo Grande, Chevrolet Tavera, Chevrolet Enjoy
Alto800	2012	Tata Nano, Chevrolet Spark, Tata Indica, Hyundai Eon
Stingray	2013	Chevrolet Beat, Chevrolet Sail
Celerio	2014	Hyundai i10, Chevrolet Beat, Honda Brio

Source: Compiled by the author; internal competition of each model is not mentioned. For example, Alto competes with the 800; the Wagon R competes with the Ritz, etc.

EXHIBIT 6: YEARWISE REVENUE, COSTS AND NET PROFITS FOR MARUTI

(As of March 31 of each year; INR in billions)

Year	Total Revenue	Raw Materials	Employee Cost	Selling & Administrative & Other Manufacturing Expenses	Net Profit
2001	70.2	58.8	1.99	6.33	-2.69
2002	75.3	58.3	2.27	6.95	1.04
2003	73.6	55.6	2.17	6.78	1.46
2004	94.8	69.7	2.93	6.07	5.42
2005	114.6	85.6	1.91	6.72	8.53
2006	126.8	93.3	2.11	8.09	11.89
2007	150.5	107.3	2.26	10.95	15.62
2008	190.6	137.9	3.46	13.39	17.30
2009	211.7	157.6	4.63	18.08	12.18
2010	301.2	223.6	5.38	24.31	24.97
2011	375.2	285.5	7.03	35.22	22.88
2012	364.1	282.3	8.43	32.67	16.35
2013	444.1	305.7	10.69	64.99	23.92
2014	445.5	313.14	13.68	59.22	27.83

Source: Capitaline Databases, www.capitaline.com, accessed September 12, 2014; and various annual reports from Maruti, Maruti Suzuki India Limited, "Our Financials," www.marutisuzuki.com/financial.aspx, accessed September 12, 2014.

EXHIBIT 7: TRENDS IN COMMODITY PRICES (MAJOR RAW MATERIALS), 2001–2014

Year	Aluminum US$/Tonne	Copper US$/Tonne	Lead US$/Tonne	Rubber US$/Tonne	Palladium US$/Ounce	Brent Crude Prices $/Barrel	Iron, Steel & Ferro Alloys (Index)
2001	1,615.65	1,787.05	477.89	693.70	1,041.55	25.64	137
2002	1,368.59	1,503.60	512.84	647.90	409	19.48	137
2003	1,378.28	1,647.35	444.78	1,011	255.32	31.29	150
2004	1,606.49	2,423.11	758.82	1,371	216.58	31.18	201
2005	1,833.94	3,169.18	953.61	1,329.40	186.03	44.28	244
2006	2,377.45	4,733.67	1,256.62	1,932.40	274.32	63.57	237
2007	2,808.34	5,668.69	1,665.11	2,110	337.05	54.30	271
2008	2,445.08	7,060.10	2,608.47	2,705	374.20	91.45	337
2009	1,412.79	3,220.20	1,134.64	1,607	188.63	44.86	307
2010	2,234.84	7,385.67	2,370.22	3,202.40	434.10	76.37	310
2011	2,439.13	9,554.75	2,597.44	5,591.90	793.10	96.29	349
2012	2,143.82	8,042.97	2,093.74	3,856.90	659.14	110.99	386
2013	2,037.70	8,048.76	2,339.82	3,271	712.59	112.93	405
2014	1,726.20	7,299.46	2,150.20	2,365.90	734.14	107.57	412*

**2014 figure estimated by author based on steel price trends. Data on commodity prices of aluminum, copper, lead, rubber, palladium and Brent UK Crude obtained from UNCTAD STAT, http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=28768http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=28768, accessed May 23, 2014.*
Source: Trends in the prices of iron, steel and ferro alloys were sourced from Ministry of Finance, "Union Budget," http://indiabudget.nic.in, accessed September 12, 2014.