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PERFORMANCE ANALYSIS OF INDIAN AUTOMOBILE INDUSTRY

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ABSTRACT

The automobile industry is increasingly becoming the cynosure of the manufacturing sector across the globe. The attention and importance to the automobile industry in the economic development and planning policies of Government and its agencies has also witnessed significant upraise. In the last two decades, the Indian automobile industry has played a very important role in the economic development of the nation. The Indian automobile industry has attained substantial growth and has become one of the largest manufacturing sectors in India. In the above context, the present study makes an attempt to study the physical performance of the industry in terms of production, domestic sales, exports and capacity utilisation. The present study uses secondary data covering all segments of the industry for a period of six years i.e.: from 2013-14 to 2018-19. Various statistical tools such as arithmetic mean, co-efficient of variation, compound annual growth rate, etc. have been used to assess the performance of the industry. The study also makes an attempt to provide necessary suggestions and recommendations so as to increase the efficiency and improve the overall performance of the Indian automobile industry.

KEYWORDS

automobile, development, industry, performance.

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INTRODUCTION

The automobile industry is referred as “the industry of industries” around the world due to both its notable share in national economies and its multi-dimensional complexity such as advanced product design and manufacturing technologies, supply chain size and network, involvement of government and labour relations. This sector is a key player in the global economy. As in all other countries, the automobile industry in India is one of the key drivers of industrial growth and employment which will further gain in importance in the coming years. During the last two decades, the automobile industry has been a bright spot in India’s progress and it has adapted itself well to the demands of globalisation. The automobile industry in India contributes 4.7 percent to India’s GDP and 19 percent to India’s indirect tax revenue. The automobile industry along with the auto components industry provides employment directly to more than 5 lakh persons and indirectly to around 50 million persons. The industry has been evolving over the years, meeting up with challenges as diverse as transitions, consolidations and restructuring, and thereby adapting to the new market conditions. The automobile industry, globally, as well in India, is one of the key sectors of the economy.

The automobile industry in India produces a wide range of vehicles like passenger cars, utility vehicles, commercial vehicles, two-wheelers, three-wheelers and tractors. Currently, there are approximately 15 manufacturers of passenger cars and utility vehicles, 9 manufacturers of commercial vehicles, 16 manufacturers of two and three-wheelers and 14 manufacturers of tractors in India. The Indian automobile industry has a mix of large domestic players such as Tata Motors, Mahindra & Mahindra, Ashok Leyland, Bajaj Auto, Hero MotoCorp and major international players including General Motors, Ford, Toyota, Suzuki, Hyundai and Volvo. According to India Brand Equity Foundation (IBEF), India is envisaged to be the third largest automobile market in the world by 2030 only behind USA and China.

India became the fourth largest auto market in 2018 with sales increasing 8.3 per cent year-on-year to 3.99 million units. It was the seventh largest manufacturer of commercial vehicles in 2018. The two wheelers segment dominates the market in terms of volume owing to a growing middle class and a young population.

The various segments of the Indian automobile industry along with their market share are given below:

TABLE 1: DOMESTIC MARKET SHARE OF INDIAN AUTOMOBILES IN INDIA (2018-19)

Segment	Market Share (%)
Passenger vehicles	13
Commercial vehicles	4
Three wheelers	3
Two wheelers	80
Grand Total	100

REVIEW OF LITERATURE

Vijayakumar and Sri Devi (2011) in their study investigated the relationship between the growth of Indian automobile industry and its profitability. They took a sample of 20 companies representing each segment of the Indian automobile industry namely passenger vehicles, commercial vehicles, two and three wheelers, based on their respective market shares. The analysis of data employed the use of correlation and a normal linear regression model that consisted of both growth and profitability. A.Vijayakumar (2011) in another research paper focused on the relationship between firm structure and profitability of Indian automobile companies. The primary aim of this study was to test the postulated hypotheses and to provide evidence with respect to the impact of firm structure on firm profitability by examining major factors such as firm size, growth, liquidity, leverage, age, past profitability, market share and capital-output ratio. Sarbapriya Ray (2011) in her paper attempted to investigate the financial health of automobile industry in India and test whether Altman’s Z score model can correctly foresee the corporate financial distress of the automobile industry in Indian context. The premises underlying this paper were that corporate failure is a process commencing with poor management decisions and that the trajectory of process can be tracked using accounting ratios. Shinde Govind P. & Dubey Manisha (2011) studied the various segments such as passenger vehicles, commercial vehicles, utility vehicles, two and three wheelers of the industry and also analysed SWOT analysis and key factors influencing growth of automobile industry. Dawar Varun (2012) made a study to analyse the effect of various fundamental corporate policy variables like dividend, debit, capital expenditure on stock prices of automobile companies of India. The study concluded that dividend & investment policy is relevant and capital structure irrelevant to stock prices. Azhagaiah R. & Gounasegaran (2014) recognized India’s per capita real GDP growth as one of the key drivers of growth of Indian automobile industry. It stated that the central government would set up various task forces on issue related to taxation, land acquisitions, labour reform and skill development for the automobile industry. Krishnaveni, M. & Vidya, R. (2015) found that the Indian automobile industry is a high flying sector these days and emerging as an export hub in wake of liberalisation and globalisation. This paper revised the category wise production, sales and exports of automobile industry in India. Kumar Neeraj & Kaur Kuldip (2016) made an attempt to test the size and profitability relationship in the Indian automobile industry. To analyse the relationship, linear regression model as well as cross-sectional method were employed for the year 1998 to 2014.

IMPORTANCE OF THE STUDY

Performance analysis is of special importance in industries and automobile industry is one such industry. From the point of view of the socio-economic development of the country, automobile industry is significant enough in terms of investment and employment. The sales and profitability function in automobile industry differs from that of other industries. Even though many studies in this direction have been conducted, the present one would be of greater significance to many. The study makes an attempt to analyse the physical performance of the Indian automobile industry in terms of production, domestic sales, export sales and capacity utilisation. It would not only provide an up to date report on the performance of automobile companies in India but also propose suitable remedial measures for improvement in their performance and competitiveness.

OBJECTIVES

The present study is undertaken with the following major objectives:

1. To analyse the physical performance of Indian automobile industry in terms of trends of production, domestic sales and exports.
2. To analyse the capacity utilisation ratio of Indian automobile industry during the period of study.
3. To provide necessary suggestions and recommendations so as to increase the efficiency and improve the overall performance of the Indian automobile industry.

RESEARCH METHODOLOGY

The Indian automobile industry comprises of four segments - passenger vehicles, commercial vehicles, two-wheelers and three-wheelers. Therefore, while conducting the present study necessary steps have been taken to include all four segments of the industry. The present study has been carried out for a consecutive tenure of six years from the financial year 2013-14 to 2018-19. The study is mainly based on secondary data. The data relating to production, domestic sales, market share and exports of various segments of the Indian automobile industry have been obtained from the Statistical Profile of Indian Automobile Industry published by SIAM (Society of Indian Automobile Manufacturers). Data is also collected from books and magazines and published papers, reports, articles from various journals, newspapers, bulletins and other research reports published by industry and research organisations.

The collected data relating to various aspects of physical and operational performance have been duly edited, classified and analysed using all types of relevant statistical techniques. Following are the main statistical tools used in the present study:

- Arithmetic Mean
- Co-efficient of Variation
- Compounded Annual Growth

RESULTS & DISCUSSION

As compared to other developed nations, the Indian automobile industry is unique in its characteristics. The automobile industry in India specialises in the production of passenger vehicles, commercial vehicles, two-wheelers and three-wheelers. The annual production figures of different types of vehicles produced by the automobile industry in India during the study period 2013-14 to 2018-19 are shown in Table No.2. The analysis of production of different categories of vehicles has been done through estimation of mean, co-efficient of variation, compounded annual growth rate (CAGR). An analysis of Table No.2 shows that the annual production of automobiles has grown at a CAGR of 6.24 percent during the study period. The average production of all categories of automobiles is calculated to be 25701071.5 units. The production figures show an increasing trend throughout the period indicating high demand for automobiles in India. It also indicates that the industry has sufficient infrastructure and capacity to meet the ever increasing demand of the Indian population. A study of co-efficient of variation shows that there is moderate variation of 14 percent only in the overall production of automobiles during the period of study. The passenger vehicles segment is considered to be the most consistent with a co-efficient variation of 11.25 percent only. Among the various segments, the commercial vehicles segment has shown the highest growth during the study period with a CAGR of 8.05 percent followed by the three wheeler segment with a CAGR of 7.33 percent.

TABLE 2: ANNUAL PRODUCTION OF AUTOMOBILES IN INDIA

YEAR	PASSENGER VEHICLES	COMMERCIAL VEHICLES	TWO WHEELERS	THREE WHEELERS	TOTAL
2013-14	3087973	699035	16883049	830108	21500165
2014-15	3221419	698298	18489311	949019	23358047
2015-16	3465045	786692	18830227	934104	24016068
2016-17	3801670	810253	19933739	783721	25329383
2017-18	4020267	895448	23154838	1022181	29092734
2018-19	4026047	1112176	24503086	1268723	30910032
MEAN	3603736.83	833650.33	20299041.67	964642.67	25701071.5
C.V (%)	11.25	18.63	14.46	17.82	14.00
CAGR (%)	4.52	8.05	6.40	7.33	6.24

Source: SIAM (Society of Indian Automobile Manufacturers)

The annual domestic sales of different types of vehicles manufactured by the automobile industry in India during the period 2013-14 to 2018-19 have been shown in Table No.3. Domestic sales of automobiles in India followed an increasing trend over the past six years. The total domestic sales of automobiles have grown at a high CAGR of 6.09 percent during the period of study. An analysis of co-efficient variation indicates that domestic sales of automobiles have not shown high fluctuation during the above period with a moderate C.V of only 14.03 percent. Since nearly all macro-economic indicators – GDP, infrastructure, population demographics, interest rates, etc are showing a favourable trend, the domestic market for automobiles in India is expected to continue on its growth trajectory. The commercial vehicles segment showed the highest CAGR of 20.17 percent followed by three wheelers segment (14.83percent).

TABLE 3: ANNUAL DOMESTIC SALES OF AUTOMOBILES IN INDIA

YEAR	PASSENGER VEHICLES	COMMERCIAL VEHICLES	TWO WHEELERS	THREE WHEELERS	TOTAL
2013-14	2503509	632851	14806778	480085	18423223
2014-15	2601236	614948	15975561	532626	19724371
2015-16	2789208	685704	16455851	538208	20468971
2016-17	3047582	714082	17589738	511879	21863281
2017-18	3288581	856916	20200117	635698	24981312
2018-19	3377436	1007319	21181390	701011	26267156
MEAN	2934592	751970	17701572.5	566584.5	21954719
C.V (%)	12.31	20.17	14.13	14.83	14.03
CAGR (%)	5.12	8.05	6.15	6.51	6.09

Source: SIAM (Society of Indian Automobile Manufacturers)

Keeping in view the increasing importance of exports and the growing demand of Indian automobiles all over the world, the present section of the study analyses the export performance of different categories of vehicles in India during the period 2013-14 to 2018-19. The figures of annual exports of automobiles have been

shown in Table No.4. It is observed from the table that the total export of all types of vehicles have grown at a CAGR of 6.83 percent during the period of study. This is marginally higher as compared to the growth in domestic sales. This shows that Indian automobile manufacturers are no longer confined to the domestic market only but are becoming globally competitive too. Among all segments of the industry, the three wheeler segment is seen to have the highest growth potential in exports registering a CAGR of 8.22 percent in the last six years. It followed by two wheelers (7.86 percent), commercial vehicles (4.43 percent) and passenger vehicles (2.12 percent). It is further observed that the total export of automobiles has shown a rising trend during the entire study period except in 2016-17. India is the largest manufacturer of two-wheelers in the world and a significant proportion of vehicles produced are exported to international markets. Indian vehicles are becoming popular worldwide due to their reasonable price, high quality, wide variety of models and timely delivery. The figures of co-efficient of variation computed indicate that exports of three- wheelers and two-wheelers highly fluctuated during the period with a C.V. of 24.41 percent and 16.23 percent respectively. The passenger vehicles segment has been the most consistent with the lowest C.V of 9.81 percent.

TABLE 4: ANNUAL EXPORT SALES OF AUTOMOBILES IN INDIA

YEAR	PASSENGER VEHICLES	COMMERCIAL VEHICLES	TWO WHEELERS	THREE WHEELERS	TOTAL
2013-14	596142	77050	2084000	353392	3110584
2014-15	621341	86939	2457466	407600	3573346
2015-16	653053	103124	2482876	404441	3643494
2016-17	758727	108271	2340277	271894	3479169
2017-18	748366	96865	2815003	381002	4041236
2018-19	676193	99931	3280841	567689	4624654
MEAN	675637	95363.33	2576743.83	397669.67	3745413.83
C.V (%)	9.81	12.01	16.23	24.41	13.99
CAGR (%)	2.12	4.43	7.86	8.22	6.83

Source: SIAM (Society of Indian Automobile Manufacturers)

FINDINGS OF THE STUDY

The physical performance of Indian automobile industry as measured in terms of trends of production, domestic sales, exports, etc. reveals the following:

- The annual production of all the four segments of Indian automobile industry marked a rising trend throughout the study period except in the three wheeler segment where the production dipped in the year 2016-17. The annual production of automobiles in India has grown at a CAGR of 6.24 percent in the last six years. Highest growth is observed in case of commercial vehicles followed by the three wheeler segment.
- The average production was highest in case of two-wheelers, followed by passenger vehicles, three-wheelers and commercial vehicles. This reflects the relative importance of two-wheelers in the Indian automobile sector.
- The annual domestic sales of all categories of automobiles have grown at a CAGR of 6.09 percent during the study period with highest growth in commercial vehicles segment followed by three wheelers. The annual domestic sales figures showed moderate fluctuations with rising trend in almost all the years.
- The annual exports of automobiles from India have grown at a CAGR of 6.83 percent in the last six years led by three-wheelers and two-wheelers. These two segments have shown rising trend throughout the entire period. However, high rates of fluctuations are observed in exports of all types of vehicles.
- Increasing export figures and growth in exports as a percentage of production indicates that Indian vehicles are in demand all over the world and they meet international standards.

RECOMMENDATIONS/SUGGESTIONS

Keeping in view the above observation relating to the performance of Indian automobile industry, the following measures are suggested which will help in improving the overall performance, enhance the competitiveness and establish a strong foothold in the international automobile market:

- The automobile manufacturers should adopt appropriate strategies to tackle with the problem of rising cost of inputs so as to enhance their competitiveness.
- The Govt. should encourage more expenditure on Research & Development (R&D) both in private and public sector by allowing certain additional concessions for R&D expenditure in the corporate tax structure.
- Continuous efforts need to be made towards incessant modernisation of the industry by facilitating indigenous design, research and development and to develop vehicles propelled by alternate energy sources.
- Development of human resources is an important criterion for enhancing the efficiency and competitiveness of Indian automobile firms.
- It is imperative for the government to encourage exports of automobiles by means of higher Market Development Assistance (MDA) grants and by further strengthening the provisions under different promotional schemes.
- Cost efficiency is very necessary for Indian automobile manufacturers to enhance their competitiveness in the global automobile market and it is considered the only real means in as mature an industry as automobiles to retain or improve market share.
- There is a lot that needs to be done by the Govt. regarding the laying and maintenance of roads. Better roads lead to faster turnaround of vehicles and more tone kilometres of haulage for the operator.
- The enhanced use of IT in the automobile industry is very important for improving the productivity, growth and competitiveness of the industry and in achieving its global aspirations.
- The automobile industry being highly price sensitive; efforts should be taken by the firms to reduce the cost of production. In the value of a vehicle, material cost alone comprises of 75 percent. Technology up gradation is likely to push down the material cost.

CONCLUSION

The Indian automobile industry has the potential to emerge as one of the largest in the world. It may be mentioned that the automobile industry in India holds significant scope for expansion, both in the domestic market, where the vehicle penetration level is on the lower side as compared to world average, and in the international market, where India could position itself as a manufacturing hub. In the presence of global competitors and a global market, the Indian companies would be able to acquire most of the share of the automobile market and establish a strong foothold in the global market by following sound business strategies. The industry may take necessary steps to upgrade the skills of the employees and enhance the focus on market research, product development and customer interactions. Considering the growing demand for automobiles in India and higher capacity utilisation over the years, key Indian automobile manufacturers have already begun to revisit their strategies to enhance their competitive position. While the industry has much to look forward to, by way of steady growth in both domestic and export markets, there are some clear challenges accompanying the opportunities in various segments. In this context, it may be stated that the automobile industry in India has survived many vicissitudes over the last six decades of its existence and the resilience developed should stand it in good stead to handle any challenge which the future may throw at it.

LIMITATIONS

The research study suffers from the following limitations:

- The study is based on secondary data and as such its findings depend entirely on the accuracy of such data.
 - The study covers only a period of 6 years i.e., from 2013-14 to 2018-19.
 - Various statistical tools used in the study to interpret the analysed data and to generalise the findings of the study have got their own limitations.
 - The present study mainly analyses the physical performance of Indian automobile companies ignoring other aspects of performance.
- However, all the above limitations do not affect the worth of this research work.

SCOPE FOR FURTHER RESEARCH

Due to constraints of time and data unavailability, the present study is confined to the analysis of physical performance of Indian automobile industry for a limited period of six years only ranging from 2013-14 to 2018-19. Hence there is considerable scope for further research in this field. A study of financial performance, especially in terms of effective and efficient exploitation of different determinants relating to profitability, dividend policy, and capital formation in terms of additions to fixed assets, inventory investment and flow of funds could be made. A study can also be undertaken in the area of performance appraisal comparing the automobile units in the private sector and public sector. Further, one can also make a comparative study of performance of Indian automobile companies in the pre-liberalisation and the post-liberalisation period. Therefore, research work in the above areas would be of great practical significance and would throw more light on the operation of automobile industry in India.

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