Industry report of Hybrid & Electric Manufacturing Industry

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Hybrid & Electric Manufacturing Industry

Introduction

- The automotive industry has experienced a notable upsurge in the manufacturing of hybrid and electric vehicles (HEVs) subsequent to a substantial movement towards sustainable mobility. Examining key facets of the industry that produces electric and hybrid vehicles is the goal of this paper. This research attempts to provide useful insights for stakeholders by giving an industry overview, examining important performance measures, pinpointing target markets, and emphasizing relevant trends. This research provides you with actionable knowledge to capitalize on the changing environment of sustainable mobility, whether you're an investor looking for profitable opportunities, a policymaker creating regulatory frameworks, or an industry insider navigating difficult markets.

Industry

- The Hybrid and Electric Vehicle Manufacturing industry has rapidly grown. As a result of growing public and governmental sustainability measures, the number of producers of electric and hybrid vehicles has expanded throughout the current period. Sales of electric and hybrid vehicles, including plug-in hybrid electric vehicles (PHEV) and plug-in electric vehicles (PEV), have increased dramatically in response to rising oil and gas prices. More specifically, domestic availability of electric and hybrid automobiles has expanded thanks to new government incentives and infrastructure funding. With a 19.9% increase in revenue in 2024—when profit reached 6.0%—and an annualized CAGR of 32.4%, revenue has increased to $104.8 billion throughout the current period. (Jozkowski, E., 2024, January).
- The challenge posed by growing global competition to home manufacturers is significant. Nevertheless, many businesses construct EVs and hybrids in the US by taking advantage of tax advantages and rebates. Concerns from consumers about electric, plug-in hybrid, and hybrid vehicles must be addressed by manufacturers. Car manufacturers that can provide more reasonably priced and longer-driving vehicles will have a distinct competitive edge (Jozkowski, E., 2024, January). electric and hybrid vehicles are getting more feasible.

Industry Performance

- The Hybrid and Electric Vehicle Manufacturing industry has experienced growing trend revenue. The cost of conventional vehicles and worries about global warming are driving up demand for electric vehicles. The United States government is bolstering the industry with tax subsidies, money for charging stations, and other incentives. By offering tax credits of up to $7,500 for the purchase of qualifying electric vehicles, the 2022 Inflation Reduction Act lowers the volume of Japanese imports. New charging stations are funded nationwide by the Strategic Investment and Jobs Act, increasing public accessibility. Traditional cars have become more expensive due to rising oil and petrol prices, but the cost of battery packs has decreased, lowering the price of EVs and boosting sales. Fuel economy has improved because of government subsidies and the EVs4ALL program

making EVs more widely available and reasonably priced. Duty-free commerce with Canada and Mexico and new tax breaks have not slowed down import penetration, but trade is still robust (Jozkowski, E., 2024, January).

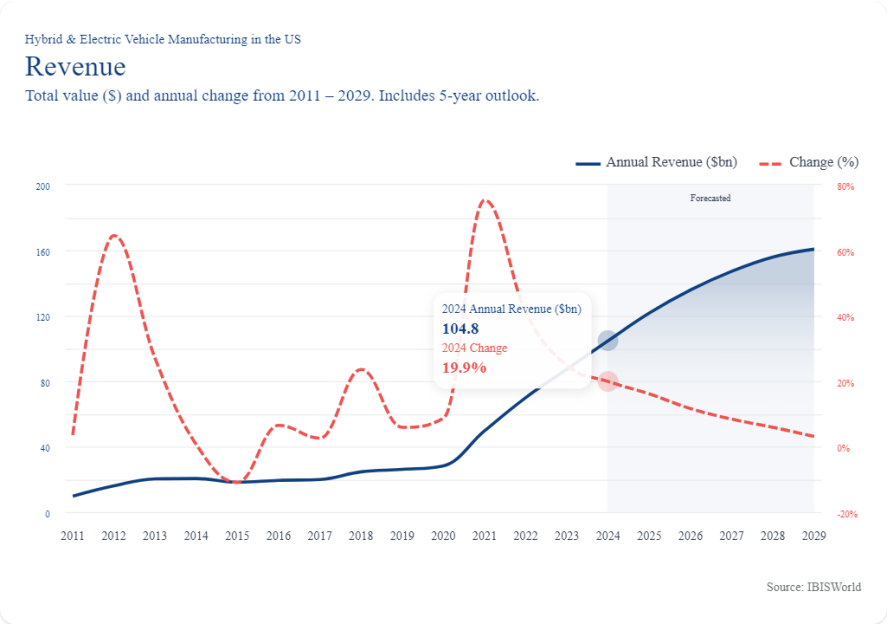

Figure 1. Change in revenue from 2011- 2029.

- Beyond 10 million cars were sold as electric vehicles in 2022, bringing in $538.8 billion in revenue. From 2018 and2028, the market is anticipated to expand at a compound annual growth rate of 23.2%. 65 percent of global income came from the US and China. 17.07 million automobiles are anticipated to be sold by 2028. Most revenue is anticipated to come from China (Kazeem T., 2023) Current economic conditions will play beneficial role for the Hybrid and electric vehicle Industry.

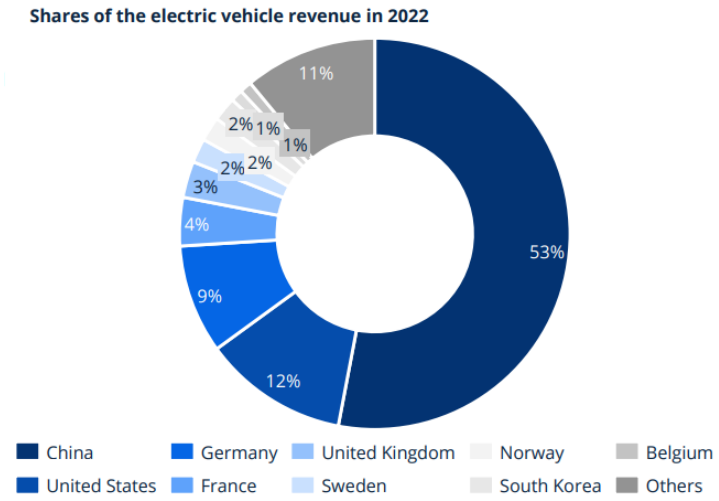

Figure 2. Share of the revenue.

Competitors

Who are They?

- Tesla and Toyota are major competitors in this industry
- Tesla has nearly 43.3 % of market in the United States Based in Texas, Tesla is a publicly traded corporation that employs over 127,855 people. The company is a Golden Goose in the US because it shows substance to strong market share as well as solid profit, but revenue growth is slower than some of its peers. In at least one industry, Hybrid & Electric Vehicle Manufacturing, they make up an estimated 43.3% of total industry revenue (Jozkowski, E. 2024, January) Tesla is in high demand in United States.

- Toyota is the second big player of this industry has nearly 13.8 % in the United States (Jozkowski, E. 2024, January).

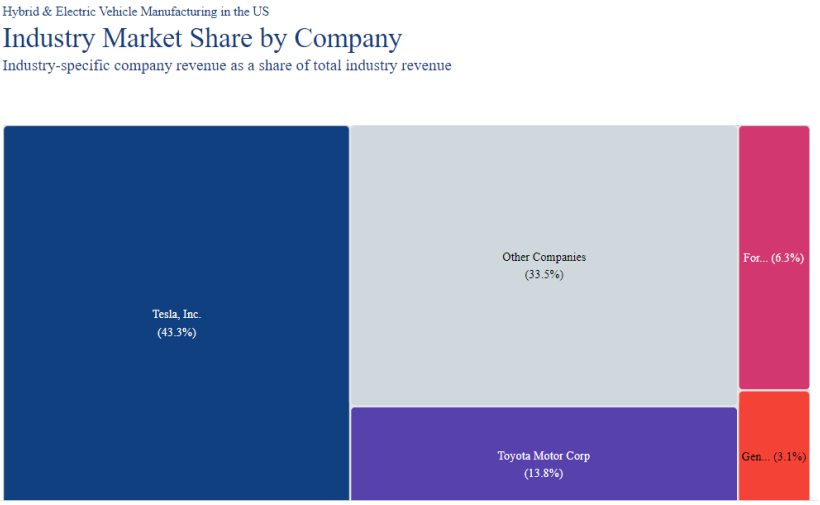

Figure 3. Market Share.

Their Marketing/Advertising Strategies

- The 'new technology' premise of Tesla Motors' marketing strategy is comparable to the effective marketing technique employed by Apple Computer. Tesla Motors has shifted from conventional mass marketing and production methods to a marketing approach that centers on cutting edge technologies. The battery electric vehicle market is expanding quickly, which helps this plan along, as does Tesla's distinct place in this quickly expanding sector (Mangram, M. E. 2012). Technology-focused, creative marketing is essential to its rapid expansion.
- The US municipal electric car industry is expanding because of public outreach and awareness campaigns. According to research, customers are not well-informed on electric vehicles; nevertheless, initiatives such as Drive Electric Chicago, ride-and-drive events, and incentives for local manufacturers help raise awareness and encourage investment (Lutsey, N., et al., 2016). Targeted outreach initiatives seek to increase consumer knowledge of electric vehicles while supporting local economic development and the expansion of the sustainable market in American communities.

Target Markets

Demographics

- The hybrid or electric Vehicle industry usage depend on sex. Male and female UF averages were 63.5% and 72.9%, respectively, and both show a strong sensitivity to age. profiles of vehicle charging loads during charging (Kelly, J. 2012). Women are more likely to drive hybrid or electric vehicle than men.

- The hybrid or electric Vehicle industry usage depends on Age too. Annual VMT and UF are highly influenced by age, with older age over 65 exhibiting higher UF but lower VMT, driving less miles but with higher UF. The people who are aged use more hybrid and electric vehicles.
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Table 1. Demographic of Hybrid and Electric vehicle users.

Age	<20yr	20–24yr	25–34yr	35–54yr	55–64yr	>65yr
VMT (miles)	10,384	14,015	14,487	14,825	13,124	10,504
UF (iterative)	0.779	0.658	0.655	0.670	0.678	0.722
UF (0% iSOC)	0.759	0.614	0.617	0.630	0.648	0.710
UF (100% iSOC)	0.850	0.740	0.714	0.707	0.718	0.757

Notable Trends

- The interest in hybrid and electric vehicles is growing younger and multicultural consumers is growing. Market trends show a surge in interest among younger and multicultural consumers for cars due to improved availability and reduced prices. Economic influences and consumer confidence emphasize the need for dealerships to focus on affordability and promotions. Gen Z and Millennials are most likely to purchase cars in the near term, and highlighting hybrid and electric vehicles can drive sales (Sanchez G., 2023). This can result in reduced running costs and environmental sustainability.

Table 2. Purchase Intent by Generation and Race.

"When do you next plan on buying a car?"

	Within the next year	Between 1 and 2 years from now	Between 2 and 3 years from now	More than 3 years from now	Don't know	Never
All	35%	21%	11%	13%	16%	3%
Generation						
Generation Z (1997-2010)	43%	**23%**	10%	8%	11%	**4%**
Millennials (1980-1996)	**48%**	19%	11%	9%	11%	2%
Generation X (1965-1979)	35%	**23%**	11%	13%	15%	3%
Baby Boomers (1946-1964)	20%	20%	**13%**	**19%**	**25%**	**4%**
Race and Hispanic origin						
White, Non-Hispanic	29%	21%	**13%**	**15%**	**18%**	3%
Black, Non-Hispanic	**49%**	**24%**	6%	6%	11%	**4%**
Hispanic (of any race)	46%	18%	9%	10%	14%	2%

- Government rules and incentives have had an impact on the global market adoption of plug-in electric vehicles (PEVs) in recent years. Since 2011, PEV sales have increased significantly in the US, whereas growth in western European nations has been slower. Incentives have resulted in significant rises in Norway. The PEV market share of China is still small even with government support (Zhou, Y, et al., 2015). The market adoption of PEVs is largely driven by government policies and incentives, with notable increase observed in certain locations.

Conclusion

- To summarize, the sector for hybrid and electric vehicles (HEVs) has grown significantly due to government incentives and growing public awareness of sustainability. One notable development is an increase in demand from younger and more diverse customers, which can be attributed to better availability and lower costs. The market is dominated by major competitors like Tesla and Toyota, with Tesla using a technology-focused marketing approach similar to Apple's success. Public outreach programs are essential for educating consumers and fostering market growth. The market for hybrid and electric vehicles is expected to increase as long as it keeps developing and innovating. Global market adoption is shaped by government regulations and incentives, while usage patterns are influenced by demographic characteristics including age and gender. For all parties involved—investors looking for lucrative enterprises, legislators directing regulatory frameworks, and industry experts managing market dynamics—the sector offers generally bright prospects. The future of sustainable transportation is bright, with ongoing developments and shifting consumer tastes opening new opportunities for growth and innovation in the hybrid and electric car industries.

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