

# [An analysis of the global automotive industry](https://assignbuster.com/an-analysis-of-the-global-automotive-industry/)

The car industry is one of the largest and most profitable industries in the world and is epitomized by the innovative ideas of Henry Ford. Since then the industry has evolved in almost every aspect. The industry has experienced its lows and highs, the 2009 economic downturn being the pivotal point in its history. The industry is essentially an oligopolistic market, which means competitive advantage is the vital objective for all firms. Recent trends have witnessed large firms shifting to regions where costs are low and vertical integration is possible. Most of the lead firms are almost completely vertically integrated and this absorbs most of their profit margins. Firms must also consider the key drivers of change such as revised environmental and technological requirements. Due to the region-centric dispersion of production there is always a risk of poor operations management in certain regions. Organizations are now encouraging their major suppliers to set shop in these emerging markets. This leads to a high level of dependence on suppliers who are benefiting from the sharp increase in outsourcing. Customers needs and wants have also changed, with safety and technology on top of their list. The rising costs in fuel and the impending threats of global warming have created a new segment for alternative energy vehicles. Analysis of these macro economic factors leads to a conclusion that the car industry is far from its saturation point and there is still potential for growth in many regions.

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## Introduction

The automotive industry is an ever-evolving industry that has experienced both, spurts of rapid growth and unforeseen decline in sales (Molnar, 2009). This is largely due to the fact that the automobile industry shares certain similarities with other large industries, such as the electrical and apparel industries where foreign direct investment (FDI), global production and international trade are significant influences (T. J. Sturgeon et al., 2009). This industry is principally an oligopolistic market; therefore competitive advantage is a key strategic objective for all major players in the industry (Williamson et al., 2004). Based on statistical data the current major players in the industry are Toyota (Japan), General Motors (USA), Volkswagen group (Germany) and Ford (USA) (Datamonitor, 2011)(See Figure 1). Apart from the current big four there are several other lead firms from Japan, USA and Germany, whose domination was heightened due to several mergers and acquisitions and equity based alliances. (T. J. Sturgeon et al., 2009).

Since the automobile industry is largely homogenous, there are common trends in the market that directly or indirectly affect most organizations (Williamson et al., 2004). Great potential for growth has been identified in markets like India, Brazil and China due to the availability of low cost skilled labor. This encourages an increased flow of FDI into such countries and facilitates trade liberalization through World Trade Organization (WTO) (T. J. Sturgeon et al., 2009). Along with Global integration organizations are also integrating themselves regionally due to dispersion of final assembly plants in various countries (Molnar, 2009). Another changing attribute in the industry is the alteration of the supply chain due to higher technical dependence on the suppliers. In contrast to the tier based supply chain, now suppliers are vertically integrating to handle complex subsystems (Molnar, 2009).

This report focuses on the various macro-environmental factors that affect the car industry currently. Factors such as supplier bargaining power, economical integrations, and political and technological aspects are the key drivers, which are affecting the car industry. The report analyses the trends in the industry from the past, and future expectations, focusing mainly on companies such as Ford, GM, Volkswagen, and Toyota, and justifies how the industry can expect growth in the future.

## Market Trends

The automotive industry has experienced structural changes, from mass production techniques in the 1920’s to lean production methods in the 1980’s (Wayman, 2007). A groundbreaking concept introduced by Toyota called the ‘ just in time Strategy’ (Beasley, 1950) changed the face of car manufacturing. Similarly Ford introduced the standardization method (Fordism) that revolutionized the method of manufacturing in all industries. Over time the industry experienced a transition from standardization to modern concepts such as ‘ just in time’ and lean production. Emphasis then shifted to branding and sales, as competition got fierce, leading to focus on company operations and marketing (Data monitor, 2011). The slowdown at the end of the first decade of the 21st century affected the banking sector and the stock market thus indirectly affecting the automobile industry. In this recession, costs in the industry increased due to an increase in the cost of the raw materials.

As shown in the following graph, the sector most affected was premium cars (Luxury cars). As stated by Pwc. on autofacts. com (2011), “ Much of the recession was rooted in the white-collar financial service professions, which account for a large percentage of the sector’s consumers.” This caused an unforeseen dip in the production level of premium cars and had a ripple effect on the on the economies of Europe and Asia Pacific.

(Autofacts 2011)

As illustrated above the fall in production during the recession can further be explained by analyzing the level of contribution by these strategic groups towards the world production of cars (by value).

The United States (US) has been a dominant force in contributing towards the world’s production of passenger cars, with 37. 80% of the world’s automotive production in the year 2007. However, negative economic conditions meant production decreased drastically from 30. 70% in 2008 to 15. 70% in 2009. This free-fall in production shows how susceptible demand for new cars and the auto industry are to economic conditions. http://graphics8. nytimes. com/images/2012/07/26/business/26euauto-graphic/26euauto-graphic-articleInline. jpg

The recession in the US not only affected the domestic market but also affected other major economies. Europe, closely interlinked with the American economy, was one of the first to experience the effects. The recession’s magnitude was evident with the fall in production in Europe in 2010, decreasing to 29. 70% from 35% in 2009. Although Europe has experienced fluctuations in production, on average it has been reasonably stable compared to the US and the rest of the world. In 2012 estimates by the European Automobile Manufacturers Association predict that sales of passenger cars will decrease by 3 million to 12. 4 million. Actual sales of passenger cars have been decreasing since 2008. Sergio Marchionne chief executive of both Chrysler and Fiat commented saying, “ I’ve never seen it this bad,” (New York Times 2012).

Asia pacific’s production has grown at a stable rate averaging 27. 92%. Although the region was affected by the global recession it limited the fall in production to 6. 4%. After 2009 it experienced a boost in growth for the following two years taking levels close to the 2008 high.

Through these years of volatility the automotive industry has had to trim the fat by cutting payrolls and closing underperforming facilities. As well as dealing with these difficult economic trends manufacturers have to be conscious about legal factors and social factors like global warming. Most companies have introduced products consider the environment, which has a positive effect on sales and brand image. These costly additions linked with bad economic conditions have in some ways encouraged greenfield ventures and outsourcing the production of parts and labor in low cost areas like Thailand and other parts of Asia.

## Macro-economic Analysis

## PESTLE Analysis

The macro environment of the car industry is extensive. Companies need to identify the key drivers of change in order to build scenarios to help them achieve their strategic objectives (Johnson, Scholes and Whittington, 2008). Changing macro-economic conditions force companies to alter their strategies in order to sustain and increase their market share.

The economic crisis that the industry suffered in 2009 played a major role in shaping the industry into its current state (T. J. Sturgeon and Biesebroeck, 2010). As stated by Sturgeon, Biesebroeck and Gereffi (2008), “ the automotive industry is neither fully global, consisting of a set of linked, specialized clusters, nor tied to the narrow geography of nation states or specific localities”. However, in recent times the industry has become more region-centric, as companies have set up production and assembly closer to point of sale in order to take advantage of economies of scale and lower labor costs that are available in these emerging markets (Humphrey and Memedovic, 2003).

Emerging markets in the car industry are attracting lead firms due to rapid sales growth in these regions (Datamonitor, 2011). In China, lead firms are adopting “ cautious localization” and “ aggressive localization” strategies to reduce their variable costs so that they can compete efficiently in the region (T. J. Sturgeon and Biesebroeck, 2010). The rapid growth of the Chinese car market can largely be attributed to its liberal policies towards joint ventures, as highlighted by the joint venture that formed the Shanghai Volkswagen Automobile Co. which dominated the market for 10 years (Molnar, 2009). Another rapidly growing market is Brazil, which is projected to be the world’s sixth largest car manufacturer in 2013. High import taxes ensure that companies are forced to manufacture locally. Another unique aspect of the Brazilian industry is its dependence on the ethanol industry that fuels almost all cars in this region. The government supports this industry as it employs over a million people and also protects the car industry from the flux of oil prices (Matthew Symonds, 2008).

One of toughest challenges for the automobile industry in current times is adhering to the latest technological and environmental norms. The emphasis on incorporating cutting edge technology in cars is evident in KPMG’s (2012) survey that shows us the recent demand for mobile connectivity and built in technology (See Figure 3). In order to meet the consumer demands for technological improvements companies are turning to new technology suppliers. This is a strategic risk for companies, as the lack of transparency in the supply chain could lead to environmental disasters, such as the catastrophes in Japan and Thailand in 2011 (KPMG, 2012). Improved fuel efficiency and lighter cars are two factors that are desired by consumers and legislators alike, however the required resources like aluminum cannot be used due to stringent environmental laws (KPMG, 2012). China has set a good example by investing US$15 billion in a market determined to utilize technology to reduce the environmental damage inflicted by fuel emissions (KPMG, 2012).

The automobile industry is one of the most heavily regulated industries in the world. Manufacturers need to follow the safety and environmental regulations of the respective regions they are based in. This becomes difficult due to the current trend of outsourcing most of the car’s parts. Every company has to adhere to the environmental norms and therefore strive to reduce emissions from their products. There is no room for error as any breach of legal regulations jeopardizes the company’s business strategy

## Porter’s 5 Forces

## Suppliers

Suppliers bargaining power is increased when there are a few producers dominating supply (Mintzberg, H. 2002). Despite the automotive industry manufacturer’s concentrated firm structure, since the early 1990’s bargaining power has shifted from the industries automotive manufacturers to their suppliers. This is because of the creation of global suppliers which have taken on more extensive roles in the areas of design, production and FDI (Sturgeon et al, 2009). These globally dominant suppliers are favored by manufacturers who expect and encourage them to be present near their plants and in emerging areas of growth (Molnar, 2009). “ New projects are no longer seen as an opportunity to expand globally – instead, a supplier must have a global base in place to even make a bid,” (Sturgeon et al, 2009).

Suppliers such as Bosch and ZF are becoming involved in manufacturing and assembly, assembling important sections of vehicles before passing them on to manufacturers (Molnar, 2009). Increased outsourcing and the bundling of more value chain activities make these firms larger and more powerful (Sturgeon et al, 2009). The larger firms achieve economies of scale and scope, making it cheaper to design and produce many components creating high entry barriers (Molnar, 2009). This is concentrating the industry, which in turn is also increasing suppliers bargaining power.

## Buyers

Buyer power can be high if buyers are concentrated, there are low switching costs, or there is buyer competition threat (Johnson, 2011). From the consumer perspective there are definitely low switching costs as switching from VW to Ford costs nothing but the price of the car. End customers generally have no bargaining power because they are individuals who purchase directly from the manufacturer through franchised distribution systems. Only large car rental or leasing companies can gain discount (Molnar, 2009).

## Substitute

Cars do not have a direct substitute threatening sales in the industry. Substitutes like public transport are available but they do not share the same benefits, mainly price and door-to-door transport, that cars do (Molnar, 2009). Bicycles and motorbikes do however offer this benefit and are often considered substitutes. They are not however perfect substitutes, as they do not meet the same comfort, carriage and experience needs, that are a unique selling point for different varieties of automobile.

A growing concern that consumers would switch to these substitutes during the global recession was the price of fuel. Despite spikes in the price of oil which provides 97% of transportation fuel, there has been a large increase in demand for passenger cars (Molnar, 2009). This can be attributed to improvement in mileage per gallon and the convenience of having a personal vehicle. It also distinguishes price from performance and that in the case of a car, a lot of people, seek value more than price.

## Competitor analysis

Rivalry between competitors occurs when competitors are numerous or are roughly equal in size or value (Mintzberg, H. 2002). The battle for market share is usually very costly and industries exhibiting these traits usually have low profit margins. The auto industry however is considered to be an oligopoly, which minimizes the effects of price based competition (Molnar, 2009). Firms try to position themselves as luxury brands (Ferrari) or low cost fuel efficient brands (Toyota) to corner a market segment. However some firms like Mercedes, by introducing the Smart car, target a wider demographic. This however, goes against the product life cycle pattern in which differentiation is supposed to decline as the business becomes more mature (Mintzberg, H. 2002).

There is some differentiation between vehicles price, quality and status, a vehicle is perishable and there are no (to very low in the case of finance) switching costs. The aforementioned factors, according to Mintzberg (2002), create a strong temptation to cut prices which intensifies rivalry. A strategy firms use to avoid price based competition is to offer rebates, 0% financing, long term warranties and ‘ no money down’. These finance options help lure in customers but also pressurize profit margins and break even projections (Molnar, 2009). Marketing innovations can raise brand identification or help differentiate the product (Mintzberg, H. 2002).

## Threat of new entrants:

Heavy investment is required by companies looking to enter the automobile industry. Economies of scale are sort after by the new entrants; however the current players have reached large-scale production levels (Gerry Johnson et al., 2011). Most brands have a rich history, helping them build their branding, as brand equity is a big seller (Molnar, 2009). Ford was established in 1903 and GM began in 1908 and they are world renowned (MarketLine, 2012). Firms need to invest heavily in research and development in order to match their competitors technical and design prowess in area such as energy conservation (Molnar, 2009).

New entrants may struggle to build their network with suppliers as the automotive industry has an extremely concentrated firm structure (Sturgeon et al., 2009). The global recession made it easier for the larger firms to acquire and integrate horizontally as well as vertically, opening more retail and franchise distribution locations.

The recent global meltdown has led to customers switching brands in order to look for low-priced or high performance cars. For example, the Tata Nano was an instant hit in India upon launch; since it was a low price car. The A6 from Audi also got high appreciation for its performance and quality. The existing players in the market would adapt these features and come up with their own designs, hence increasing competition. Daewoo founded in 1967, could not survive and was dismantled in 1999 by the Korean government. Indian Tata motors entered the passenger vehicle market, in 1998 through aggressive acquisitions of foreign brands but could not penetrate the US or EU markets (Molnar, 2009).

One of the most crucial barriers to new entrants is legislation and government policies. Restraints such as patent protection regulate the market and have an impact on new companies, if they do not have any unique ideas (Gerry Johnson et al., 2011). Policies regarding FDI and FII affect companies going global and entering new markets. Regional integration such as NAFTA, EU, makes trade and foreign investments simpler and convenient for such companies.

## Conclusion

“ The current economic crisis has accelerated deep structural change in the automotive industry, setting the stage for sustainable growth” (Deloitte, 2009). There are huge potential gains and room for growth in emerging markets, particularly in Asia, mainly in China and India. Countries with high importing costs will experience a decline in domestic capacity as the lead firms continue to set up their manufacturing centers in these emerging markets. The regional trading blocs (e. g., NAFTA, European Union, ASEAN, and Mercosur) are expected to grow and drive regional production as firms look to shift to lower cost regions.

Another lucrative opportunity for the organizations is the increase in demand for new cutting edge technologies in cars. This convergence leads to the creation of new business models that include alliances with companies from other industries that provide new technology (Deloitte, 2009).

The rising prices of crude oil indicated a continuous and gradual increase in fuel prices over the next 4 years (Moming Zhou, 2008). This is an opportunity for the lead firms to grow by investing more resources in alternative energy products (Hybrid cars), at a time where consumers are looking to switch to more environment friendly cars (See Figure. 2). This is a perfect time to capture this market when treaties like the Kyoto Protocol (Molnar, 2009) call for a collective effort to battle global warming.

In conclusion, it can be determined that the global car industry continues to attract consumers to differentiated products. However, firms must make the right strategic decisions, to reduce the absorption of their profits by their vertically integration strategies. Existing companies must adopt a strategy of sustainable growth to ensure their survival in this industry.

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