**Define the Problem:**

Ford is an automobile manufacturing company that specializes in manufacturing and selling automobiles and commercial vehicles. The CEO and his executive team are struggling with shifting consumer preferences in Ford’s different market segments and geographies, the significance of new industry entrants and technologies, and how much the company should involve in these new technologies including challenges for powertrain, software, autonomous vehicles, car ownership and use, and small car concepts.

Fields’ vision for the future is smart mobility that combines innovation in several areas like connectivity and autonomous vehicles where focus changes from a business model based on unit car sales to one based on vehicle miles traveled, whether this is through current patterns of car ownership, vehicle-sharing, or the use of autonomous vehicles by non-drivers such as children, seniors, or disabled people.

**List any outside concepts that can be applied:**

* Powertrain: electric vehicles use a different powertrain than internal combustion engines that has huge impact on environment
* Connectivity software and cloud data storage for cars: increasing amount of the value of each vehicle is devoted to providing information and entertainment, or "infotainment.".
* Autonomous Vehicles: providing non-drivers with an autonomous transportation mode.
* Car Ownership and Use: transform traditional patterns of how cars are owned and used.
* Small Car: automakers must be able to supply subcompact models that are affordable to new middle-class entrants in markets such as Asia, Africa, and South America, yet acceptable in terms of quality, safety, styling, and profitability.

**List relevant qualitative data:**

* Tesla has achieved remarkable success with its all-electric vehicle line at both low and high ends of the market.
* With the ability to travel 200 miles or more on a single charge, some electric vehicles started to enter mainstream consumer markets by overcoming the “range anxiety” that consumers report feeling if their travel range is limited to shorter distances.
* Microsoft has become an important player in providing connectivity software and cloud data storage for cars.
* Apple entered the automotive market relying on its own software and design prowess.
* Google’s experimental vehicles are finding their way to an increasing number of communities where they are undergoing testing, mapping streets, and startling other drivers with their revolving rooftop sensors.
* Almost every major automotive firm now has its own autonomous vehicle development program.
* Didi Kuaidi has invested heavily in Uber’s U.S. domestic rival Lyft.
* Toyota has invested in Uber, offering to lease vehicles to its drivers.
* Apple is aiming to better integrate its devices with Chinese cars and usage patterns.
* Japanese and Korean automakers are most successful makers of B-Cars, or subcompacts and have also gained market share in the United States and Europe with incremental innovations and aggressive pricing that have had a substantial cumulative impact. U.S. automakers have long struggled to earn a profit on small cars, and have therefore placed greater emphasis on larger cars and trucks.
* LeEco has just introduced its own electric car, and Jia boasts that he could eventually offer cars for free, while earning money from the services his company sells to passengers.

**List relevant quantitative data:**

* 1.3 million people die every year in car accidents where 94 percent of those accidents involve human error.
* Apple recently invested a billion dollars in Didi Kuaidi.
* Forecasts indicate that within the next ten years, small cars will comprise two- thirds of the global market, and over half of the sales volume will be in emerging markets, particularly in Asia.
* The size of the middle class in the world’s emerging markets will soon exceed the total number of consumers in the developed world.
* The European Union’s Renewable Energy Directive mandates that 10 percent of energy in the transportation sector must come from renewable fuels by 2020.
* In the U.S., the Renewable Fuel Standard requires annual increases in the volume of renewable fuels, reaching 36 billion gallons by 2022.
* Shared, driverless cars, U.S. auto sales could drop as much as 40 percent over the next 25 years.
* General Motors recently invested $500 million to purchase a 9 percent stake in Lyft.
* Ford has forecasted that global sales of small, low-cost cars will grow 35 percent between 2012 and 2017, far outpacing the expected 12 percent rise for the industry as a whole.
* The U.S. electric vehicle industry has been averaging about 10,000 units a month in sales, with about 20,000 sold worldwide last year for Ford.
* Tesla’s Model 3 has reportedly received almost 400,000 pre-orders,20 a number equal to the entire electric car stock currently on the road in the U.S.

**Describe the results of your analysis:**

Ford is launching a total transformation of the company toward a “mobility services” business model. In addition, the company has launched new services like SYNC3, advanced vehicle connectivity, as well as an entire “Smart Mobility” program, which includes 25 mobility research initiatives around the world in areas like big data collection and analysis, fleet management, and shared transport which leverage the customer experience and the use of big data, all with the goal of making mobility accessible and affordable. Ford is also offering multiple power train solutions. It is positioning itself to cater to both the driving experience and the riding experience, and to serve markets where semiautonomous driver assist capabilities and fully autonomous vehicles each play a role. However, Ford’s struggle to reinvent itself is also symbolized by its plans for a massive renovation to its facilities in Dearborn.

**Describe alternative actions:**

Beside all of these Smart Mobility efforts targeted for Ford’s new transformation i.e. the new growth areas fueled by new business models, I believe Ford’s core franchise should also adapt to market changes as another transformation by discontinuing domestic production of economy-class and low-selling vehicles.

**Describe your preferred action plan:**

Short-Term: make industry-leading quality and exceptional service a reason to choose and stay with Ford.

Medium-Term: reduce product, manufacturing and quality costs; and improve proven, global-scale engineering, purchasing, manufacturing, and vehicle test and development capabilities for world-class safety, ride and handling, quiet and comfort, and durability.

Long-Term: create partnerships with other companies like Uber, Lyft, or Doordash so that Ford could be their one and only autonomous sponsored vehicle.