

Roger Ramesh

2/16/21

**Why is it true that some companies that have paid close attention to customer needs and built great businesses are the very companies that are hit the hardest by disruptive technologies?**

The direction of society will always be impacted by technology. Business must adapt technological changes to their business model so their products and services do not go fully obsolete. Companies like Amazon, Bosch, Phillips all have integrated disruptive technologies to ensure their companies continue to profit regardless of change in the technology ecosystem. Amazon currently has implemented robots in their warehouse to monitor inventory along with transportation of certain products. Bosch utilizes AWS as their main cloud solution provider to connect and register their devices to the Cloud and also store the telemetry data acquired from the sensors on the devices. Phillips is now developing IoT devices where all their products will be able to connect, measure and exchange data to over networks without a human interaction or need.

**Name a technology that you feel is disruptive and give an example of a company that was harmed by it, and a company that thrived because of it.**

Robotics and the development of drones have had a significant impact in many different industries. These fields include agriculture, healthcare, manufacturing, mining, security, delivery, etc. Robots provide the benefit of extensive efficiency, improved product quality, higher profitability, lesser amount of human labor, and workplace safety. Drones can inspect and perform surveys quickly, environmentally friendly with no fuel exhaust, and they are extremely easy to deploy and require a limited amount of skill to operate.

Walmart, and other major retail stores were negatively impacted by the development of warehouse robots and drone delivery as they heavily relied on human labor for transportation, inventory checking. The majority of their products sold at their stores must be bought at their in person stores. However, Amazon took a different approach where everything they sold was through delivery. Amazon does not rely on human labor for managing their warehouses, monitoring inventory, it instead relies on robots to do those tasks. It also utilizes drones to aid in the delivery of products to customers. Since then Amazon has surpassed Walmart as the largest retailer in the US due to its involvement with disruptive technologies into their business model.

**How do companies incorporate the prospect of emerging disruptive technologies in their thinking about company strategy?**

The companies incorporate disruptive technologies into their strategy by first determining whether or not the technology can revolutionize the market they are trying to attract. The disruptive technologies also have to ensure that it is sustainable meaning it will last a long period of time so the company can use it to continuously generate profit for their company. Disruptive technologies are incorporated into strategy also by that there is a lesser amount of capital expenditure, and a lesser amount of human labor required for the company to succeed. In addition, the technology has to improve the quality of the product or service that is being delivered to the customers.

An example is the ride sharing service Uber is utilizing self driving cars as a future part of their business models to have more cars on the road and to reduce the amount of human labor needed for their service to be successful. The benefits of utilizing self driving cars for Uber goes beyond their business model as there are significantly less traffic deaths, reduced traffic lane capacity, and overall reduced travel time.

**What are the two most important ways that changing consumer preferences in Ford's various market segments and geographies will impact the company?**

Industry entrants and technologies can impact the Ford company both positively and negatively. Examples of industry entrants and technologies are electric vehicles, new software development for cars, autonomous vehicles. Electric vehicles use a different powertrain than fuel based vehicles where the power is directly coming from the engine to the axle. To tackle this issue Ford developed the all-electric Ford Focus which used as a powertrain system however it was not fully electric but had a different combustion engine design system along with it running on biofuels which are more ethanol based. The development of powertrain configurations will allow Ford to manufacture vehicles that are either only battery operated, engine operated, or a combination of both battery and engine. Ford also has engaged with multiple technology companies to add more features to their vehicles. They developed MyFordTouch that can provide touch based control to their users and voice controls. Their first partner in tech was Microsoft In addition, they partnered with SYNC3 to allow the car to start, lock, and unlock the car from a remote location. Recently they have begun a collaboration with Amazon Alexa to have an Echo control certain settings on the car and use the Echo control the house appliances from the car. Ford has also taken advantage of the development of autonomous vehicle technologies for simplifying the driving experience and providing additional safety. Their current vision includes autonomous cars coexisting with regular cars and pedestrians. Their developments in research centers focus on 360 degree views around the car for any form of object detection.

**How significant are the new industry entrants and their technologies? Have any of them introduced truly disruptive innovations that may be lethal for Ford?**

The new industry entrants and their technologies are significant because they have a widespread impact that can go beyond the automobile industry. Limiting fuel usage is important in bigger global issues like climate change. Software and AI are impacting the way we do tasks that involve human labor. Autonomous products are going to improve the efficiency and quality of certain tasks that are being done. Ford has found a way to integrate the new entrants and technologies into their business model and into the products they are delivering for the customers. Therefore they do not serve as a threat to them because Ford is adapting to changes in the overall landscape.