Sonia Patel

Pfizer Company Analysis

Dr. Will

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Background of Pfizer Company

Pfizer is a pharmaceutical firm that conducts extensive research in their facilities to develop medicines for certain healthcare ailments such as cardiovascular health, metabolism, oncology, and inflammation and immunology (Pfizer inc. 2019). This company was founded in 1849 by two brothers named Charles Pfizer and Charles Erhart who were experimenting with different drug combinations and working on creating antiparasitics. During the Civil War, there was an increase in demand for painkillers, disinfectants, and preservatives. The brothers started to expand their production of tartaric acid, along with other drugs that were used by the Union army in the Civil War. This is a significant marking point in Pfizer's history, because this is what doubled Pfizer's revenues and allowed it to expand to the company it is today. Currently, Pfizer has its headquarters in New York, however they have research facilities in Massachusetts, Cambridge UK, California, Connecticut, and Missouri.

The majority of products this company produces are prescription drugs, however they also create generic drugs and consumer health products (over the counter medicines, personal care products). Examples of some of their well known prescription drugs include: Lipitor (taken to lower blood cholesterol), Lyrica (to treat neuropathic pain), and Viagra (for erectile dysfunction) (Company Fact Sheet, 2018). Common examples of their consumer health products

include: Advil, ThermaCare Heatwraps, Chapstick, and Emergen-C Vitamin C (Company Fact Sheet, 2018). Additionally, Pfizer also invests much of their resources and capabilities into the research aspect of creating these prescription drugs. Because Pfizer has a multitude of product offerings, throughout this company analysis, the main focus will be on their prescription drugs and their research endeavours.

Company Operations

Pfizer has their business operations divided into two main segments; Pfizer Innovative Health (IH) and Pfizer Essential Health (EH). Around 2016 Pfizer was striving to become the number one pharmaceutical company, however they faced many challenges in the form of expired patents and failed mergers (Pfizer inc. 2019). At this time, they had to consider many factors for their company moving forward and one of their biggest pushes was to split into two different businesses. However, this did not go as planned but instead they decided to split their operations into two segments. At large, the Innovative Health segment focuses on expanding the brand through research/ development and acquiring new companies, while the Essential Health segment is focused on managing their portfolio as well as strengthening their brand (Pfizer inc. 2019). Going into more depth, the Innovative Health specifically focuses on the research and development that goes into creating new medications for oncology, rare diseases, inflammation and immunology, and internal medicine as well as the creation of vaccines. This segment accounts for contributing to 60% of Pfizer's total revenues (Pfizer inc. 2019). The Essential Health specifically focuses on managing their brands that will soon lose their patent protection. They also manage the generic brands that are created by Pfizer to mimic the prescription drugs, but are priced lower than the prescription drugs. Lastly they manage contracting of the

manufacturer services as well as the operations of research and development. This segment contributes 40% to the total revenues of Pfizer.

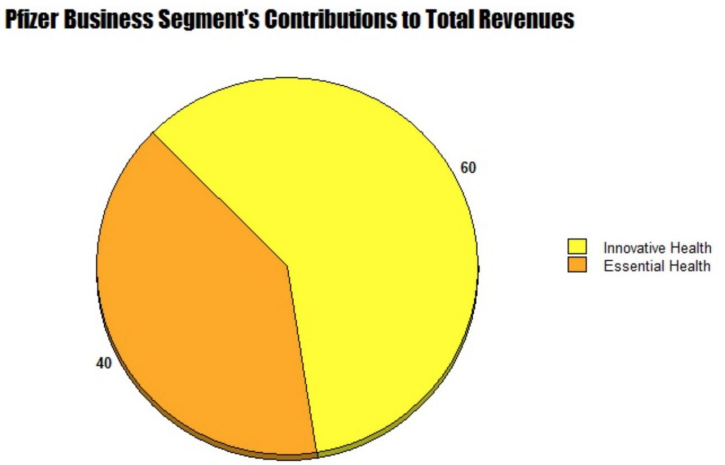


Figure 1-1 shows a pie chart of total revenues that come from each of Pfizer's business operating segments.

Geographic Segments

As mentioned earlier in this paper, Pfizer has many locations across the United States and the world. Pfizer's largest market is consumers in the United States, however their products have expanded to be offered globally. Pfizer operates in over 90 different markets across the world including developed and emerging markets and they sell their products in more than 125 countries. Also, they have manufacturing plants in countries such as Belgium, China, Germany, India, Ireland, Italy, Japan, Puerto Rico, Singapore (Pfizer inc. 2019).

Figure 1-2: This map represents some, but not all of the countries that Pfizer operates and sells their products in.

Customer Segments

Pfizer has a wide variety of buyers and consumers of their products. One of the largest segments that they cater to are healthcare facilities/ systems. Within this larger segment some of the individuals would be doctors, hospitals, nurses, pharmacists, retailers, clinics, and patients themselves..etc. They sell the vaccinations they create to government agencies, clinics, and doctor's offices. Most of these larger sales, for example, selling in bulk to hospitals would be done through wholesale. Pfizer would sell their products to large wholesalers such as Cardinal Health or McKinneson and then they would distribute and sell the drugs to other healthcare facilities/ systems. In addition to this large segment, a smaller segment that they target is

consumers themselves. These products are placed in pharmacies, retail chains, grocery stores, convenience stores and much more. Pfizer targets these consumers by directly advertising to them via online promotions, TV advertisements, and in store promotions.

Financial Statements

Pfizer is one of the leading companies in the pharmaceutical industry. In December 2018 they recorded around 53 billion in revenues, and a net profit margin of 20% which is pretty good *(Pfizer inc.*, 2019). Since 2014 they have quite steadily been increasing by around a billion each year.

Historical Financials

Income Statement

Year	Revenue ($ M)	Net Income ($ M)	Net Profit Margin	Employees
Dec 2018	53,647.00	11,153.00	20.79%	92,400
Dec 2017	52,546.00	21,308.00	40.55%	90,200
Dec 2016	52,824.00	7,215.00	13.66%	96,500
Dec 2015	48,851.00	6,960.00	14.25%	97,900
Dec 2014	49,605.00	9,135.00	18.42%	78,300
Dec 2013	51,584.00	22,003.00	42.65%	77,700
Dec 2012	54,657.00	14,570.00	26.66%	91,500
Dec 2011	61,035.00	10,009.00	16.40%	103,700
Dec 2010	65,165.00	8,257.00	12.67%	110,600
Dec 2009	50,009.00	8,635.00	17.27%	116,500

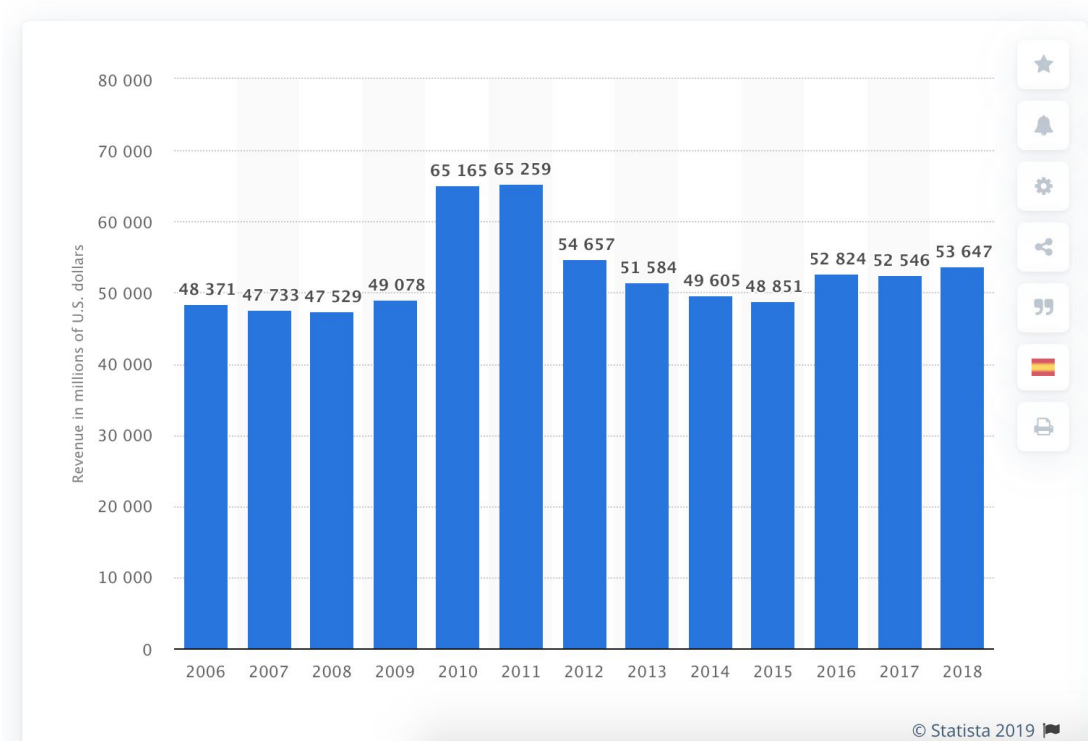
(Pfizer inc., 2019)

As compared to their top competitors: Merck & Co, Novartis, SANOFI, Pfizer is leading in revenues.

Key Numbers	Pfizer Inc.	Merck & Co., Inc.	Novartis AG	SANOFI
Annual Sales ($ M)	$53,647.00M	$42,294.00M	$53,166.00M	$40,350.24M
Employees	92,400	69,000	125,161	104,226
Market Cap ($ M)	$249,547.05M	$198,097.47M	$171,698.31M	$106,574.18M

(Pfizer inc., 2019)

As noticeable in the graph below, in 2010-2011 there was quite an increase in Pfizer's revenues. After looking into what might have caused this, I found that in 2009 there was a merger with a large company named Wyeth, and soon after Pfizer launched a new research and development platform named Pfizer Worldwide Research and Development which largely supported vaccine research. These are some significant new events that were responsible for bringing in higher revenues (Company history, n.d.). Closer to 2020 many of the drug patents are going to expire, therefore Pfizer will need to either launch new drugs or focus their efforts elsewhere in the company to increase revenues.



Industry Analysis; Porter's 5 Forces

Industry Rival

Although Pfizer has a wide range of product categories, for the purpose of Porter's 5 Forces, I will be defining the industry as the: "pharmaceutical industry". The pharmaceutical industry is one of the most competitive and profitable industries in the United States. The concentration ratio for this industry is pretty low considering the amount of players in the industry, and which players have the most market share. In this industry, the top 10 firms only account for around 41% of the market share (Vara, 2019). Within this, Pfizer is leading amongst the 10, and accounts for only 5.6% of the market share (Vara, 2019). These numbers demonstrate that the concentration is low, the competition is high, there are many players, and the high profits make it attractive for new entrants.

In terms of product differentiation, in this industry patents allow certain companies rights to their drugs for a certain amount of years. A patent is a form of intellectual property that gives its owner the legal right to exclude others from making, using, seeking, and importing an invention for a limited period of years (Wikipedia). In the pharma industry, "patent-protected drugs face no price caps nor competitors for about twenty years, giving patent holders market exclusivity" (California Management Review", 2017). Big pharmaceutical companies invest many resources and capital into researching and developing new effective drugs that meet unmet needs. Once a drug gets approved, it gets a patent but after the 20 years, the patent life is over, and other brands can mimic the drug. In short in this industry a lot of product differentiation comes from innovation, research/ development, and patents. As mentioned in our Contemporary Strategy Analysis Textbook, "In industries where products are highly differentiated (perfumes,

pharmaceuticals, restaurants, management consulting services), competition tends to focus on quality, brand promotion, and customer service rather than price" (Grant, 2015). In this case, the buyers would be healthcare entities, and they are well-versed in the quality of drugs and that is what would lead them to purchase a specific drug for their patients.

Threat of New Entrants

In this industry there are not too many threats to entry for the large existing pharmaceutical companies. There are many capital requirements to enter this industry, and not only internal economic (financial) capital but also external economic capital, human capital, social and relationship capital, and constructed capital. However large profits in this industry can be an incentive for small start-ups to try to enter. If they had a new drug and could get venture capitalists to invest in their business they could potentially make money. However, they wouldn't be able to compete with the larger more established pharma companies, and may sell out their company to a larger one as their exit strategy (Whiteside, 2019). Another key factor that would be a threat to new entrants is the extensive legal barriers such as the following the guidelines of the United States Food and Drug Standards, and their new drug approval can take up to 27 months to complete. A third factor is the channel of distributions, and how start-ups in this industry may have to fight for shelf space, whereas bigger brands are already known, respected, and recognized therefore can get their products on the shelf easier. The fourth threat to entry would be economies of scale in larger more established pharmaceutical companies have more distribution and manufacturing networks that allow them to produce larger quantities of their products.

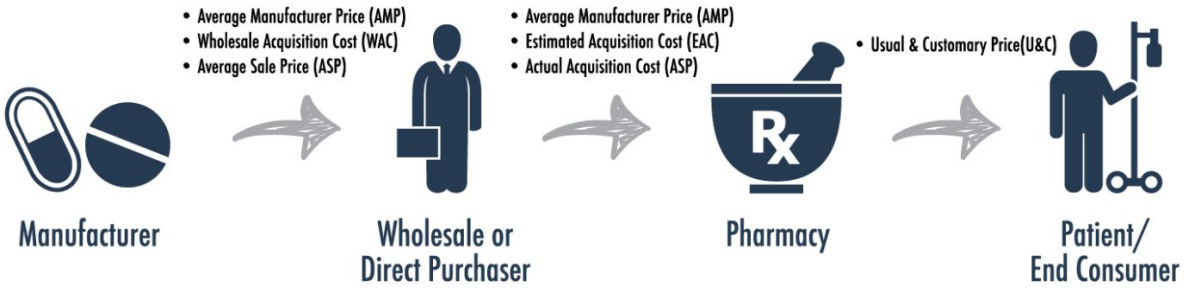
Threat of Substitutes

As mentioned before, patents protect specific drugs from being replaced for up to 20 years. While the drug is still in this protection period, other companies cannot substitute or replicate this drug. However after the patent expires, other companies can create generic and often cheaper versions of the drug and this is when substitutes can become threats to larger companies. There has been a rise in creations of herbal and homeopathic substitutes for these drugs as well as promotion of living a balanced lifestyle which would reduce the need to take many chronic disease related drugs.

Bargaining Power of Buyers

The distribution pipeline in the pharmaceutical industry has 3 main steps which will be described below, to get a better understanding of buying power in this industry. The largest buyers of the most drugs within this industry are wholesalers such as Cardinal Health and AmerisourceBergen and they account for bringing in 85-90% of revenues for the drug manufacturers (US Pharmaceutical Pricing, 2019). Wholesales pay a price to purchase drugs, and this price is known as Average Manufacturer Price (AMP) or Wholesale Acquisition Cost (WAC). Then, these wholesalers sell their drugs to retailers such as CVS health or Walgreens (US Pharmaceutical Pricing, 2019). The price that retailers pay to wholesalers for these drugs is called Actual Acquisition Cost (AAC). AAC is based on the WAC plus a markup required by the wholesalers, and this markup is typically higher for branded drugs (US Pharmaceutical Pricing, 2019). Average Wholesale Price (AWP) is another term that is used to measure this price. The final step is getting the drugs into the consumer (patients) hands, and this price is known as the "Usual and Customary" (U&C); this price is the AAC plus the pharmacies mark-up (US Pharmaceutical

Pricing, 2019). All of these steps are important in order to understand which distributors have the most buying power. In this industry, because patents are required for 20 years, the manufacturers of these drugs have the most power in determining what the price will be, and typically because generic brands are not yet produced there are no cheaper versions of the product. Once generic brands are out, it allows other players within this industry to become cost leaders, and more competitive with their pricing. Big wholesalers do have some bargaining power because they are aware of alternative pharmaceuticals that they can purchase, however they may not have many options. Consumers buying prescription drugs in their local retailer, don't really have much buying power, because they have to buy the prescription drugs that their doctor orders for them.



The figure above depicts the process of the distribution channel of getting a pharmaceutical product into the hands of the end consumer (US Pharmaceutical Pricing, 2019).

Another key player that has bargaining power in this industry are the insurers. Typically insurers who have a lot of market power can leverage that to reduce the prices that they will pay.

Pricing Example – Brand		Pricing Example – Generic	
Lipitor (Bottle of 30, 10mg, circa 2011)		Atorvastatin (Bottle of 30, 10mg, circa 2016)	
AWP	$120	AWP	$100
Brand Discount	20%	Generic Discount	80%
Dispensing Fee	$2	Dispensing Fee	$2
Cost at Pharmacy	$120 * (1-20%) + $2 = $98	Cost at Pharmacy	$100 * (1-80%) + $2 = $22
Member Copay	$30	Member Copay	$5
Rebate	$12	Rebate	$0
Cost to Insurer	$98 – $30 – $12 = $56	Cost to Insurer	$22 – $5 – $0 = $17

The image above shows how a branded versus a generic drug would be priced along the distribution line, and how consumers would be charged their co-pay, and how insurers would be charged (US Pharmaceutical Pricing, 2019).

Bargaining Power of Suppliers

In this industry, suppliers can be defined as companies who provide pharmaceutical companies with technology and the chemical compounds required to create the actual drug. Because this industry's products can directly impact the health of their consumers, they ensure safety at each of their supply chain levels, including keeping the raw materials in separate warehouses and only purchasing from fixed certified suppliers (An Easier Way to Understand the Pharma Industry, 2019). With this being said there are many specific chemicals that these companies rely on, and the chemical industry is also very competitive ("Pharma through Porter's Eyes", 2004). However, because there are a multitude of certified suppliers, pharma companies can switch from one

supplier to another without too many consequences. There are a few chemical companies (suppliers) who have decided to become fully integrated into creating pharmaceuticals themselves and becoming pharma companies, it is not very common but it is a threat coming from suppliers. Examples of companies that have done this are Orchid Chemicals and Sashun Chemicals ("Pharma through Porter's Eyes", 2004).

Resource and Capability Analysis

Resources

Pfizer has many tangible and intangible resources within their organization, that allows them to be a leader of market share in their industry. Pfizer's key resources include: Physical resources (research buildings, manufacturer units/ facilities, machines, factories, technology, size and brand image), Human resources (chemists, scientists, physicists, clinical researchers, physicians...etc), Intellectual resources (patents, copyrights, established partnerships), and financial capital (cash, credit). Within physical resources, the biggest resource they have is through their research facilities. A few of their research facilities even has specific focuses for example: Cambridge, UK (Pain & Sensory Disorders and Regenerative Medicine), Massachusetts (Therapeutic Innovation), California (global biotechnology), New York (creating treatments for a broad range of cancers) and they have a few more in the US. Pfizer invests a lot in their research to develop new cutting edge drugs to solve the market's unmet needs. In 2018 Pfizer had a Research and Development budget of $7.7 billion (Mortimer, 2019). Recently they received FDA approval for their leukemia (AML) treatment. This treatment that they created will be paired with low dose chemotherapy to have positive results among patients who cannot handle intensive chemo treatment (Mortimer, 2019). Research that goes into developments like

these, is what causes Pfizer to be in the Big Pharma industry. Additionally the large research facilities allow for Pfizer to invest in the creation of new drugs. Another key intellectual resources that Pfizer has is their ability to create innovative drugs and then have a patent on them for 20 years. This patent gives Pfizer the sole right to the chemical makeup of the drug, and keeps it unique for 20 years. Research and development in combination with their parents is what really contributes to Pfizer as a leader in this industry.

Capabilities

Pfizer has several capabilities from their key resources that allow them to have competitive advantage in this industry. One of these is using research and development to increase their line of products and their market reach. Their ability to invest their money, time, and human capital into research is what gives this company the leg up in their revenues. Additionally Pfizer's choice to focus on the areas of oncology, immunology, rare disease, and internal medicine allow them to put the majority of their research budget towards that, which will in turn lead to faster solutions in treating these deadly diseases/ conditions. Another capability of Pfizer is their source of human capital. They employ people of various backgrounds to help with their cause, and also invest in training them. Pfizer has multiple training and learning programs in order for their employees to become highly skilled in specific areas of the business (Pfizer SWOT Analysis Matrix, n.d.). These trainings have also contributed to employees who are motivated to achieve more for the company. A third capability of this company, is their process of not being fully vertically integrated. Pfizer gets their raw materials to create the drugs from various suppliers, and they manufacturer some drugs in their factories, but some are outsourced. After the drugs are produced, Pfizer doesn't directly sell them to retailers, they use wholesalers

in order to get their products on the shelves. I think this is smart of Pfizer to do, instead of focusing on the whole supply and distribution chain, they focus their efforts on their research and their brand image.

Core Competencies

Pfizer's core competencies lie in their ability to use their human capital wisely in regards to research to develop drugs. Although Pfizer's competitors also invest a lot in research and development, they don't all focus on the same health areas. For example Bristol-Myers, a large pharmaceutical company has some focus area overlaps with Pfizer, but the majority do not overlap. Bristol Myers focus areas are: cardiovascular disease, cancer, diabetes, hepatitis, and psychiatric disorders, and here the only two that overlap with Pfizer are cardiovascular disease and cancer. Therefore, I think Pfizer can use their research and development and supply/ distribution networks as competitive advantages. Their distribution channels can be attributed to their brand name. Large wholesalers such as Cardinal Health are more likely to purchase from a well-known company that they are guaranteed profits off of, rather than an unknown company. Additionally when choosing retailers to sell in, wholesalers must have name branded drugs to gain shelf space at CVS, Walgreens, and other pharmacies.

I think these core competencies are sustainable if the company continues to be a leader in these specific areas. Research and develop is an asset that can be transferable across multiple products that they create. Research and development is not something unique amongst pharmaceutical companies, but it does lead to the creation of new innovative drugs which are then unique and give the company competitive advantage. The distribution channels that Pfizer have are sustainable as a competitive advantage, as long as Pfizer continually adds positively to

their brand name. Many of the established relationships that Pfizer has are due to their worldwide recognition of being innovative and providing solutions to healthcare needs.

Pfizer currently acquires smaller companies, however in order to develop their competitive advantage, I think investing more time in researching about smaller companies they can buy out would be helpful to extend their product line. Adding onto their research and supply/distribution channels, they can also focus on establishing partnerships with other research based companies to have their help in creating this drugs.

Business-Level Strategy Analysis

When thinking about the business level strategy for Pfizer, I think it would best categorized as a company that is focused on differentiation. Differentiation is when a company distinguishes their product to make it more attractive to a certain market, and have it differ from its competitors products. Within the pharmaceutical industry, the method of doing that would be through having a patent on a specific drug after it is created and approved. This patent discourages other similar pharmaceutical companies from creating similar drugs, until the patent life is over. Additionally Pfizer operates on the fact that they know their consumers will keep buying certain drugs from them because they may not be able to find them elsewhere.

On the supply side, Pfizer has established relationships with the companies from which they purchase organic chemicals. Because there are so many suppliers in the chemical industry, Pfizer has the flexibility to easily switch over to purchasing from another supplier. However this is not necessarily the case with buying technology. Technology and machinery that is used by Pfizer is not in stock with a variety of suppliers, therefore prices may not be able to be

negotiated. One suggestion is that Pfizer focuses on leveraging their relationships with their machinery suppliers in order to negotiate prices.

On the demand side, generally in this type of industry there will always be a demand for pharmaceuticals to cure and treat the many chronic conditions and diseases that people face. With new prescription drugs being invented, there will be a continued demand from existing retailers and wholesalers. One thing that may deter physicians from prescribing branded drugs, is the new occurrence of generic drugs once the patent life is over. This can increase demand for generic drugs among consumers, because of the lower prices. A method of combating this issue, that Pfizer has taken into consideration is the creation of their own generic drugs. Recently they have started a line of generic drugs that is similar to their prescription drugs, in order for wholesalers and retailers to have a choice between the two; either way both drugs belong to Pfizer and they will be making profits.

Corporate-Level Strategy Analysis

Pfizer is not fully vertically integrated, however this is something that can contribute to their ability to focus on specific areas of their company. As mentioned earlier in this paper, Pfizer purchases their organic chemical compounds from various suppliers, outsource the manufacturing for some products and create some products in their facilities. Pfizer then sells the majority of its products to wholesalers who then distribute to retailers, hospitals, physicians..etc. In this industry, much of the end user's health and safety is at stake after using these products, therefore Pfizer must ensure the safety and quality of their products. In order to do this, they have developed end to end supply chain management. This system aligns inventory, supply chain planning, transportation management, temperature control management, logistics and

logistics security, environmental health and safety, dangerous goods compliance, global trade compliance and trade management (Manufacturing and Supply Chain, n.d.). In addition to this supply chain management, they also have a security program in which they monitor everything from the procurement of raw materials, the delivery of product, and point of dispensation to our customers. This program allows Pfizer for additional control over their supply chain, even though it is not fully vertically integrated (Manufacturing and Supply Chain, n.d.).

Synthesized Recommendations

Pfizer has already created a good well-known brand name in the pharmaceutical industry. Their focus on research and development is their strongest resource, and I believe they should further invest in that area of their company. Their supply chain, although not fully vertically integrated can still be monitored to assure that their products are of top quality, and are safe for their consumers. Their systems for monitoring this, are different from other companies supply management chains. I do believe they have more potential to look into acquiring smaller pharmaceutical companies, especially those start-up companies who may have potential but do not have nearly as many resources as Pfizer's. Focusing on acquisitions and mergers will expand Pfizer's product line as well as potentially their market reach. I think Pfizer should continue to divert their focus to specific healthcare needs, and find solutions in those areas. Doing this will allow them to be continued experts in these subfields, and gives them more credibility when applying for patents, and when their drugs become available to the mass markets.

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