

Strategic Analysis of

MONSANTO



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Monsanto Company

Executive Summary

Since the company's founding in 1901, Monsanto has vastly grown, and is now thriving as a multinational company and an industry giant in sustainable agriculture, agricultural biotechnology, and biochemistry. From the introduction of Roundup herbicide in 1976 to the Gulf Guardian and World Food Prize Laureate awards received by the company in 2013, Monsanto has made a name for itself as a leading competitor in the industry, a voice for environmentalism, and a model for other companies to follow for success. However, even as a notable giant, the company faces its own challenges and is constantly seeking to improve.

Monsanto's available resources put it in a position to be an extremely assertive competitor in its industry. This analysis addresses the internal and external factors affecting Monsanto, as well as its current marketing, operations, and strategic policies through a variety of analytical tools. By weighing the company's weaknesses, needs, and challenges against its competitive advantages, resources, and capabilities, alternative strategies and recommendations are presented to further the success of the company. Key concerns for the company include brand image, safeguarding market position, the risks and restrictions of international operations, and overall efficiency.

Introduction

History

Monsanto was founded in 1901 by a 42 year-old purchasing agent for the Meyer Brothers Drug Company, John F. Queeny. Queeny's goal was to begin with the manufacture of the artificial sweetener saccharin and hoped to provide a sweetener that would do the same job as sugar but at one-sixth the cost. The company was named after the founder's wife, Olga Monsanto Queeny, because the name Monsanto was one that was familiar with German suppliers ("Company History", n.d.). Monsanto is headquartered in St. Louis, Missouri, and is a publically sustainable agriculture company that delivers agriculture products and support to farmers around the world. Monsanto has an operating revenue of \$3.52 billion and market share ranging up to 90% (Fortune, 2016).

Monsanto's history dates back over one hundred years and the company has made some exceptional strides. In 1945, it began to produce and market agricultural chemicals which is still one of its most profitable product lines. In 1960, it established its agricultural division due to its success and introduced Roundup, a breakthrough herbicide that is still a leading product in the industry, in 1976. Monsanto scientists were the first to successfully genetically modify plant and seed cells in 1982 and in 1996 the biotechnology division of the company was officially established. To this day Monsanto has received several recognitions and awards for its developments in technology and environmentalism and has continued to thrive in a tradition of innovation and sustainability.

Current Organizational Challenges

Overall, the majority of organizational issues currently faced by Monsanto involve social responsibility, brand and company image, and employee morale affected by negative stigmas.

With rapid medical advances, the company must keep up to current health standards and compensate for products and retroactive issues that are brought to its attention as new developments present themselves.

Monsanto is dedicated to making a difference in the world, but faces several organizational challenges including several lawsuits the company is combating concerning polychlorinated biphenyls (PCBs) which are known human carcinogens and potent endocrine disruptors which were banned by Congress in 1979. In the forty-four years leading up to the Congressional ban, Monsanto was the only company manufacturing PCBs in the United States (Kennedy, 2016). In June 2000, in a statement to Chemical Week, Monsanto said “The overwhelming weight of scientific evidence suggest there are no chronic human health effects associated with exposure to PCBs” (Chemical Industry Archives, 2009). However, as both the Environmental Protection Agency and the Agency for Research on Cancer have concluded that PCBs are more likely than not to be carcinogenic, Monsanto’s strategy is now to argue that because PCBs are everywhere on the planet, the company is innocent of any liability.

Ongoing debates around genetically modified organisms (GMOs) have presented several challenges for Monsanto. The European Union banned GMOs in many European countries, hindering international expansion and development. Social media has demonized many of the company’s products and practices claiming that some cause cancer, are morally wrong and that the company does not care for the general public’s well being or the environment. Furthermore, as a negative stigma around GMOs has circulated in social media, more and more people have been looking for strictly organic products or locally grown produce. This trend has caused farmer’s markets and organic sellers to become more appealing to the health-conscious consumer. Major brand and company image issues have presented themselves for Monsanto and have forced the company to take on new marketing strategies and even change managerial structuring in some cases to combat those issues.

Strategy Formulation

Vision and Mission Statement

Monsanto shows its commitment to sustainable agriculture through the following vision statement: “Our vision for sustainable agriculture strives to meet the needs of a growing population, to protect and preserve this planet we all call home, and to help improve lives everywhere.” The company plans to do this through technology that it hopes will double crop yields (“Our Commitment”, n.d.).

Monsanto’s mission statement is: “Monsanto is an agricultural company. We help farmers grow yield sustainably so they can be successful, produce healthier foods, better animal feeds and more fiber, while also reducing agriculture’s impact on our environment” (ANH, 2011). Monsanto has made it clear that it strives to produce more, conserve more, and improve lives (“Our Commitment”, n.d.). Overall, the main goal of the company is to feed more of the world’s population without damaging the environment in the process.

Evaluation of Current Situation

Stakeholder Analysis

Monsanto believes that transparency is key when communicating with stakeholders. Stakeholders in the company include shareowners, farmers, employees, investors, and distributors (“Corporate Social Responsibility”, 2011). However, Monsanto’s largest stakeholder is society itself. When prioritizing responsibilities, Monsanto clearly keeps this in mind.

Due to the massive impact Monsanto has on the biotechnology and agricultural industries, farmers and distributors are severely impacted by the company’s ability to innovate technologies and aid in production. Without the significant advances Monsanto has made in agricultural technologies and trait engineering, several technologies, herbicides, and farming methods would not be available. Looking forward, if Monsanto were to slow down research and development (R&D) or pull out of any segment, technological developments would likely stagnate. Banning Monsanto products and technologies, as some countries have considered doing, would greatly reduce crop yields for cotton, corn, and soybeans across six continents.

Stakeholders including resource-poor families and farmers are greatly impacted by the company’s commitments to feeding the world, improving lives, and corporate social responsibility. Monsanto seeks to improve agriculture and farming in order to help increase net income, increase economic position, and create jobs in rural and agriculturally focused areas. By 2020, the company aims to improve the lives of 5 million resource-poor families. Through the company’s efforts, these families and their communities have, and will continue to see, a rise in overall quality of life. (“Sustainability Report”, n.d.)

Monsanto strives to prioritize the needs of its stakeholders. Through the use of a “Materiality Matrix,” Monsanto can not only define the issues that are important to its stakeholders, but discover how it may properly allocate resources to support these issues as well as learn of areas that it may positively impact on a global level. In line with the information provided by this matrix, Monsanto’s priorities should be product safety and stewardship, water preservation, food security, and continuous improvement in agriculture. These issues were validated with stakeholders to ensure accuracy in reporting (“Materiality”, 2012).

External Analysis

General Environment: PESTEL Model

Political: According to Monsanto, the company is both constructively and transparently committed to participating in the political process as this participation is essential for the company’s long-term success (Monsanto, 2015c). An important political policy to Monsanto is the voluntary labeling of food. The company claims that involuntary labeling may lead consumers to believe that the food with the label is somehow inferior to the unlabeled food. Monsanto sees no real difference between the food it produces and any other food (Monsanto, 2013). Overall, Monsanto is very transparent about its involvement with politics and fights either for or against policies based on what is best for its stakeholders.

Economic: In general, Monsanto is in good economic health. The company's main threat is public perception. Even under the current circumstances, Monsanto maintains 80% of the corn

industry and 90% of the soybean industry. The industry's barriers to entry also provide a great economic environment for Monsanto (Mitchell, 2014).

Social: Monsanto has been sharply criticized for its GMOs, something many consumers believe to be a health hazard. In order to address these concerns, the company has created a Q&A on its website that answers any tough questions people may have concerning GMOs and its products ("Monsanto Viewpoints", n.d.). Corporate social responsibility is one of Monsanto's top priorities. The company strives for its consumers to know that its products are safe for the world and aims to have its products be better for society than those of its competitors.

Technology: Monsanto relies heavily on its technological developments. On account of its developments, the company has generated billions of dollars in revenue and plans to maintain this success. The company encourages employees of its technological development team to push themselves creatively because it believes that one idea could change the entire world ("Technological Development", n.d.). Monsanto also contributes a large amount of its resources to R&D in which technology is extremely important.

Environment: Monsanto clearly cares about its impact on the environment, as stated in the company's mission and vision statements. Its main purpose is to feed the world in a more efficient way than traditional products. Although some are concerned about the possibility of negative consequences from GMOs, groups including the World Health Organization and National Academy of Sciences, as well as scientists such as Bill Nye, have all agreed that GMOs are no worse for the environment than non-GMO equivalents. A few studies have even shown that GMO products could be better for the environment than traditional products (Kollipara, 2015). Needless to say, environmental issues are a primary concern to Monsanto.

Legal: Monsanto has been in many legal battles, mostly concerning farmers using patent-protected products without the company's consent. Because of the complexity of Monsanto's products and the science behind them, the company has also been involved in several legal cases concerning GMOs. Whether it is farmers wanting to reuse seeds or states seeking to pass laws requiring the labeling of GMOs, Monsanto has made strides to fight against anything that could hurt its business (Beasley Jr., 2009).

Industry Environment: Five Forces Model

Industry Rivalries: High

In the agriculture industry, specifically in the areas of biotechnology development, seed development, and chemical protection, the market is riddled with small companies and many names, however it is dominated by intense competition between a handful of industry giants. Monsanto is one of these giants. The company's primary competitors, both domestically and internationally, are E. I. du Pont de Nemours and Company (commonly referred to as DuPont), Syngenta AG, and Agrium, Inc. Competition and pressure may be intense, but Monsanto aims to use the intensity of the environment to its advantage.

Structural factors strongly affect the sustainable agriculture industry. In the sectors of biotechnology development and genetic modification especially, R&D of new technology and strains of seeds makes growth in the industry slower than in others. Attempts to handle industry rivalries has even led to negotiations for Monsanto to purchase Syngenta AG, a company who had been falling behind in new developments. With numerous competitors all racing to make

new strides in the industry, Monsanto must allocate more of its resources to researching and developing innovative products to keep ahead. Last year, the company spent over \$1.5 billion on R&D including advances such as “new biotech traits, elite germplasm, breeding, new variety and hybrid development, and genomics” (Monsanto, 2015b). With such large amounts of resources needed simply to keep in competition, exit barriers are high, pushing rivalries to become even more stringent.

Monsanto continuously contends with its competitors in development and market share. In the field of biotechnology, Monsanto only holds a mere 5.5% of the market share in this segment. The remaining 94.5% of the market is divided amongst other companies including 4.6% held by DuPont and 3.7% by Syngenta AG. Although Monsanto only holds a small percentage of the market in this particular segment, Monsanto has much more control of genetically modified seeds than is initially realized. For example, when looking at genetically modified soybean seeds, Monsanto has a 63% market share which constitutes about 13% of its total revenue or about \$1.7 billion. In the field of pesticide manufacturing, Monsanto is considered to be an industry giant, however it only holds about a 10.3% market share of this particular segment while Syngenta AG holds 11.6% and DuPont holds 6.1%. The remaining 72% of the market is held by other companies (IBIS World, 2015). Even though Monsanto does not hold the vast majority of the market share, the company maneuvers to remain ahead of industry rivals in specific, significant segments.

Threat of Substitutes: Moderate

Monsanto offers a vast line of conventional seeds, GMOs, advanced traits and technology that enable more nutritious and durable crops, as well as safe and effective crop protection solutions (“Products”, n.d.). Rival competitors exist in each of the market segments that industry giant Monsanto is a part of, yet Monsanto continues to be a leading company in the agriculture industry. With the level of rivalry in the agriculture industry, the threat of substitutes by competitors large and small are certainly something that needs to be monitored by Monsanto.

As in any industry, consumers are price-sensitive. Monsanto needs to keep in mind that with substitute products on the market, consumers can always choose to purchase products with lower prices from its competitors. If prices are too steep, consumers may not even purchase from within the industry at all.

Aside from products presented by competition, alternatives to its products present additional threats as substitutes. When it comes to pesticides, Monsanto most certainly manufactures one of the market’s best-known, Roundup. Roundup is an herbicide made primarily of the active ingredient glyphosate, water, and a soap-like surfactant blend (“Glyphosate and Roundup”, n.d.). Fortunately for Monsanto, it maintains a strong lead even while only making up 10.3% of the market (Haider, 2015). However, farmers who have become more conscious of potential carcinogens in chemical pesticides and herbicides have begun to look for alternatives. Increased popularity in organic produce has made organic pesticides, predator insects, and mechanical control of pests such as flame weeding and mulching more appealing than chemical products.

Competitors such as Cibus Global have introduced alternatives to gene splicing and genetic modification. In an attempt to compete with Monsanto, Cibus Global has developed a way to create bioengineered or Cibus-altered plants without creating an entirely new organism that has been

genetically modified. To produce Cibus-altered plants, a tiny string of desired trait molecules are selected and are exposed to the host's DNA. Instead of implanting the DNA and creating a new organism, the cell is tricked in thinking it has found a mutation and therefore repairs itself. During this natural process, the cell alters its own DNA, incorporates the additional trait, and digests and expels any remaining foreign molecules (Arndt, 2010). Unfortunately for Monsanto, since "Cibus-altered plants don't carry genes from other species, they're not subject to bans on GMO crops or labeling requirements" (Arndt, 2010). In addition, Cibus-altered plants are faster and cheaper to produce. It is critical that Monsanto monitors competitors as such and continue to develop innovative ways to stay a step ahead of the competition.

BargainingPowerofBuyers:Low

Monsanto's size and ability to spend millions of dollars on R&D gives it significant power over its buyers. The company's genetically-modified seeds are only resistant to the herbicide Roundup, so when farmers buy seeds, they have to buy the herbicide from the company, too (Arax & Brokaw, 1997). Monsanto uses genetic modification to give better traits to crops, such as increased drought or insect tolerance, and it believes that if it couldn't patent the breeds, there would be less incentive for the development of new breeds ("Food, Inc.", n.d.). Monsanto has been harshly criticized for the power it has within the market and has been accused of taking advantage of its buyers. In 2006, Monsanto bought out several smaller seed companies, giving it even more control over the market and eliminating some threats within the industry ("Company History", 2014). As a result, it has been able to steadily increase its prices (Leonard, 2010).

BargainingPowerofSuppliers:Low

Monsanto manufactures most of its own products, so most of the supplies it buys are machines, energy, and products related to chemical manufacturing. Because most of the chemical manufacturing suppliers have a lot of competition, they can easily be replaced, giving its suppliers little power over Monsanto (Morea, 2015). Instead of hiring outside companies to do research or to provide seeds, Monsanto simply acquires them. In order to continue the complex operations Monsanto needs to thrive, it needs well trained and extremely educated people to research and experiment so that its products remain at the top of the market. The fame and fortune of the company helps bring in the most qualified people, which gives these employees some leverage over their compensation.

BarrierstoEntry:High

Monsanto currently has a tremendous advantage over its competitors simply because many of them depend on licensing patents that Monsanto holds. Monsanto is able to invest heavily in its R&D because of its immense growth. The company is able to create and patent new seeds and herbicides more easily than its competitors because of the great amount of resources it has been able to obtain through its majority market share. Smaller companies that are attempting to break into this market will have high barriers of entry due to the amount of capital necessary to develop new technologies.

Monsanto controls many of the industry's patents which forces competing companies to spend more of their money on R&D in order to remain competitive. This is a combination of several barriers of entry including economies of scale, technology, as well as start-up cost. Start-up companies will find it extremely difficult to break into this market because of the high costs of

R&D. These companies may not have the funds needed to put toward the necessary R&D after they spend the money necessary to put their infrastructure in place regardless of what industry they choose to enter because of economies of scale. The larger companies have lower production cost and higher efficiency which allows them to grow larger and larger. These companies are better positioned to undercut competitors on price because of their market share and cost associated with production. Monsanto also has long-term contracts with key suppliers in this industry which creates yet another hurdle for others to remain competitive.

Monsanto reacts with a competitive response when competing companies attempt to take business from it. This is done through aggressive marketing and pricing tactics. Smaller companies are simply not able to be as flexible with pricing because of the impact to their bottom line. Monsanto has grown to be so influential and diverse in the industry that it can manipulate prices through its competitive response efforts.

Overall, this is in an attractive industry because it is difficult for companies to enter the market, and buyers and suppliers have low bargaining power. The threat of substitutes in this industry is moderate, making profitability lower because consumers could simply buy something else if the price is too high. However, as of now, Monsanto's products are of higher quality than most of its substitute products, so this helps keep profitability high. Industry rivalries are very high, which lowers profits because everyone is fighting for market share. However, this strong competition pushes Monsanto to be more innovative, which helps it find newer, better ways to create products.

Competitive Environment

Monsanto's industry only has a few top competitors, among many smaller competitors. Through buying out smaller companies, Monsanto has continuously gained market share and expects to double its profits by 2019. Monsanto is a diverse company and is relatively protected from any negative market conditions that would affect one particular facet of its overall business. If the soybean market is doing badly, Monsanto will sell more corn seeds. Also, Monsanto has control over competitors through patents and licensing. Although DuPont is one of Monsanto's biggest competitors, it also happens to be one of Monsanto's largest customers. Over 80% of US corn and 90% of US soybean is produced by seeds containing Monsanto's patented seed traits, meaning that although Monsanto doesn't control this much of the market, the market is dependant on Monsanto (Mitchell, 2014). Competition is fierce within the industry; but, until competitors can create their own patents and products that are of higher quality than Monsanto's, Monsanto will remain an industry leader.

Key Success Factors

SuccessFactors:

- Financing Options
- Differentiation
- Management and Employees
- Research & Development (R&D)

There are many factors impacting Monsanto's success. Because of these factors, Monsanto has been able to capture massive market shares. These factors include financing options, differentiation, great management and employees, and large R&D investments (IBIS World, 2015).

Monsanto has significant financial leverage because of its large cash reserves and a strong investment grade rating. The company reported an operating cash flow of \$3.1 billion in 2014 and a free cash flow of \$2.0 billion. A key factor in Monsanto's financial performance will be the acquisition of Syngenta AG. This will increase Monsanto's cash flow, which should lead to better overall financial performance (Ariel, 2015).

Monsanto has mastered differentiation by creating value through its diverse and unique products. Since imitation is difficult for competitors to achieve, for farmers to receive the same value, they must purchase Monsanto's products. Patents were obtained to protect Monsanto's current products as they were created through the development of technology and extensive research (Anderson, 2014). Some may call Monsanto's business practices monopolistic because its products are driving out competition. However, its products are protected by law because of intellectual property rights.

Monsanto's management style has developed greatly over the years. Before 2007, Monsanto simply cascaded strategies down through management. When this strategy was deemed ineffective, the company consulted with an outside group to find a better plan. The consultant helped Monsanto to develop many strategic execution insights in order to achieve organizational alignment of the strategy, including learning modules that answer the questions of why the strategy implementation and what the strategy is (Root Inc, n.d.). Monsanto's management was also proven to be successful in 2010 when the CEO, Hugh Grant, was voted CEO of the year by his peers. William Nuti, CEO of NCR, was on the selection committee and had this to say about Grant, "Hugh Grant is admired by his peers for driving seamless change inside Monsanto while positioning the company for sustainable long-term success, success that will outlive him and provide value to all the stakeholders of Monsanto for years to come" (PR Newswire, 2011).

Monsanto, without its large investments in R&D, would more than likely fail as a company. In 2014, Monsanto's R&D expenditures were 11% of net sales (Ariel, 2015). In 2011, the company achieved a \$6.1 billion gross profit from the \$1.5 billion it spent on R&D. Because of these investments, Monsanto has been able to achieve product results that its competitors could not. Among the 20,000 employed at Monsanto, 4,800 were R&D focused (Solomont, 2012).

External Factor Evaluation (EFE) Matrix (Refer to Figure 1)

The EFE matrix is intended to help explain how Monsanto responds strategically to each opportunity and threat. Monsanto received a weighted score of 3.16, which shows that it has an above average response to the external environment. This result was calculated by scoring the opportunities and threats of the company based on how well it responds to given externalities. The opportunities Monsanto responds best to are innovative technology, growing populations, and global presence. The threat it responds best to is fluctuations in commodity prices.

Monsanto's technology is superior because it brings more value to farmers and to Monsanto than any other company has been able to achieve. This technology is the reason that 80% and 90% of the U.S. corn and soybean market, respectively, is sold using Monsanto's patented seed traits (Mitchell, 2014). The company continues to capture this value by using multiple strategies including licensing, paid up-front licensing, royalty fees, technology fees, contracts, end-use fees, and multiple technical solutions (Gorman, Simmonds, Ofiesh, Smith, & Werhane, n.d.). Monsanto addresses the growing population through its products. For instance, in the same piece of land, farmers' harvests are 3 times greater than they were before using Monsanto's products. Monsanto also participates in World Population Day, which brings awareness to the rapidly growing population. Monsanto is more than aware of this fact and is trying to improve its technologies even more so that it can continue to produce more in less acreage (Monsanto Corporate Engagement, 2012).

Monsanto responds very well to the threat of increasing commodity prices because of its pricing structure. In order to offset the fluctuating prices, the company uses rolling price and averages them over a 36-month period, which includes an estimate of future prices. Additionally, Monsanto prices seeds annually and bases the prices off of different factors, including commodity prices ("How Monsanto Prices Seeds", n.d.). However, fluctuating commodity prices are a constant risk that must be constantly controlled. If Monsanto does not continue to strategically price its seeds, this threat could easily take over and become a weakness.

Overall, Monsanto is strong in some categories and needs to improve in others, but on average, the company responds better than its competitors. If Monsanto could improve its responsiveness to the competitive market, it could improve its position in the industry and put itself above the growing behemoth DuPont.

Competitive Profile Matrix (CPM) (Refer to Figure 2)

A CPM was created to show the most important factors for success in the industry Monsanto competes in. Monsanto was ranked the highest compared to competitors DuPont, Syngenta AG, and Agrium, Inc. Monsanto, with a weighted score of 3.62, is the strongest competitor in the industry. DuPont came in second at 3.20, Syngenta AG followed at 2.96, and Agrium, Inc. was last at 2.41. Monsanto's success stems from its free cash flow, seed market share, and product quality. There is no doubt that Monsanto's products outrank the competition. Its customers tend to be loyal to the company and Monsanto's seed sales are higher than the sales of its competitors (Philpott, 2015; Regalado, 2015).

In 2015, Monsanto's free cash flows were higher than those of its competitors. Free cash flow is very important in this industry because it shows what cash the company actually had leftover after expenses, including hefty R&D costs. This is significant to Monsanto because the company can reinvest into itself if needed. Monsanto's free cash flow in 2015 was \$2.1 billion (Morningstar, 2016b). DuPont, ranking second in this category, reported a free cash flow of \$687 million, significantly lower than Monsanto (Morningstar, 2016a). Monsanto has also seen market share growth in both the corn and soybean markets. Monsanto dominates the corn seed market, while DuPont currently holds more market share in the soybean seed market. However, Monsanto has seen consistent growth in that market over the years (Schafer, 2014).

Monsanto's biggest threat is DuPont, which outranks Monsanto in brand reputation. Although Monsanto's products may be considered higher quality than those of DuPont, Monsanto has experienced more negative publicity than DuPont has. Although DuPont and Monsanto are practically equal in terms of company history, controversial business operations, patents, and debates around GMOs more often affect Monsanto's overall company and brand image (Simpson, 2014). With the above factors in mind, Monsanto must be cautious of DuPont and Dow Company's recently announced merger. This merger could mean that DuPont may take over more of the market share and would then be the largest agricultural chemical business. Fortunately for Monsanto, the merger is not set in stone. Governmental agencies could end up having a huge impact on this potential merger (Bromels, 2016). Overall, DuPont is very similar to Monsanto in many aspects of the industry. If Monsanto does not act strategically DuPont could easily overtake it.

Internal Analysis

Management Team

Hugh Grant serves as both the Chief Executive Officer (CEO) and Chairman of the Board of Directors. Grant, who has been with the company since 1998, worked his way up Monsanto's corporate hierarchical ladder to become the Chairman and CEO in 2012. Alongside Grant, the company is led by President and Chief Operating Officer (COO), Brett D. Begemann, who has been with the company since 2009 and is responsible for the company's global business and supply chain. In addition to Grant and Begemann, Monsanto's management team consists of Senior Vice President and Chief Financial Officer (CFO), Pierre Courduroux, who has been with the company since 2007 and manages company financials; and, Executive Vice President and Chief Technology Officer (CTO), Robert T. Fraley, who has held this position since 2000 and oversees the company's integrated crop and seed agribusiness technology.

Other members of management include Chief Commercial Officer (CCO), Michael J. Frank; Senior Vice President, Chief of Staff and Community Relations, Janet M. Holloway; Executive Vice President (EVP) of Human Resources, Steven C. Mizell; Vice President and Treasurer, Duraiswami Narain; Executive Vice President (EVP) of Global Strategy, Kerry J. Preete; Vice President and Controller, Nicole M. Ringenberg; Executive Vice President, Secretary and General Counsel, David F. Snively; and Vice President, and President and Chief Operating Officer (COO) of Climate, Dr. Michael K. Stern. In addition to senior management, many members of middle management help to keep facilities functioning properly through supervising employees and monitoring day-to-day operations.

Analysis: The company is managed by an experienced, well-rounded group of senior and middle management who strive not only to bring the best value through the company's products, but to operate the business as honest and structurally organized as possible. Monsanto has established a pledge that is its commitment to how it operates. Monsanto's pledge addresses integrity, dialogue, transparency, sharing, benefits, respect, acting as owners to achieve results, and creating a great place to work ("Our Pledge", n.d.). Monsanto's management team is committed to the values of corporate governance. By establishing company policies and procedures, as well as an employee code of conduct, Monsanto's management team can place their entire focus on making sure each of their resources and capabilities are utilized to capture the highest level of value which leads to satisfied customers. Led by Hugh Grant and many other

knowledgeable executives, Monsanto is in a solid position to maintain operations, meet future objectives, and continue to have a sustainable competitive advantage over competitors in the industry. As members of leadership are proficient in various areas of operations, Monsanto has the capability to remain a profitable business for many years to come.

Board of Directors

Monsanto's Board of Directors consists of a total of 13 individuals including the Chairman of the Board and CEO, Hugh Grant; Gregory H. Boyce, elected in April 2013 and David L. Chicoine, elected in April 2009, who are both members of the Science and Technology and the Sustainability and Corporate Responsibility Committees; and Janice L. Fields, elected in April 2008, who chairs the Sustainability and Corporate Responsibility Committee. Other members of the Board of Directors include: Arthur H. Harper, Laura K. Ipsen, Marcos M. Lutz, C. Steven McMillan, Jon R. Moeller, William U. Parfet, George H. Poste, Robert J. Stevens, and Patricia D. Verduin. In terms of Board of Director selection, members are nominated for directorship by the Nominating and Corporate Governance Committee and are to "exercise their business judgment to act in what they reasonably believe to be in the best interests of the Company and its shareowners" ("Board of Directors' Charter", 2013). Additional committees of the Board are as follows: Audit and Finance Committee, Executive Committee, People and Compensation Committee, Restricted Grant Stock Committee, Science and Technology Committee, and Sustainability and Corporate Responsibility Committee.

Analysis: Monsanto's Board of Directors is made up of a distinguished group of diverse individuals from various companies and industries. The diversity these individuals bring to the Board allows the company to better understand a variety of different perspectives and apply various levels of knowledge and expertise to company operations.

Value Chain Analysis of Functional Areas

<u>PrimaryFunctions:</u>	<u>SupportFunctions:</u>
● Operations & Services ● Inbound & Outbound Logistics ● Marketing & Sales	● Firm Infrastructure ● Human Resource Management ● Procurement ● Technology Development

PrimaryFunctions

Operations & Services

Operating over 500 facilities in 67 countries, it is apparent that Monsanto has a large global presence. Monsanto has 404 facilities operating globally and 146 facilities operating in 33 of the 50 United States combining to over 20,000 employees worldwide ("About Us", n.d.). The company manages its business in two segments: seeds and genomics, and agricultural productivity. In the seeds and genomics segment, Monsanto either directly produces or contracts with third-party growers for its varieties of seeds, while Monsanto creates and purchases raw

materials and energy through long-term contracts with suppliers in the agricultural productivity segment (“Annual Report”, 2015).

Raw materials are then manufactured into conventional, genetically modified, or trait-specific biotech seeds or agricultural productivity services such as herbicides. The main focus of the company is to deliver sustainable agriculture by providing better harvest while using less input. The company is able to maintain a sustainable competitive advantage through its creation of innovative products. The expected population growth to over 9 billion by 2050 will mean that farmers are going to have to find ways to maximize crop yields; and, Monsanto is striving to be the first to help find a solution to this global issue.

In addition to selling its own products and services under its own brands, Monsanto licenses to seed companies both in the United States and globally allowing its products and services to reach even further (“Annual Report”, 2015). Although Monsanto’s methods of operation are successful, as with any global company, operations outside the United States are subject to higher risks and restrictions including, but not limited to, fluctuations in currency values and foreign exchange rates, governmental restrictions on imports and trade, and the possibility of acts of terror or war (“Annual Report”, 2015).

Inbound & Outbound Logistics

Monsanto has a mission when it comes to logistics: to achieve a competitive advantage over its competitors by providing reliable delivery, the “lowest possible supply chain cost, optimal logistics asset utilization, and incident free distribution” (Highbeam, 1996). Through each level of the supply chain, the company hopes to increase value for its customers. Not only does Monsanto strive to produce and deliver products and services that will satisfy its customers, but it strives to work closely with suppliers, strategically collaborating to create long lasting partnerships built from trust and commitment. By partnering with companies such as Hexion Inc., a provider of key raw materials; Buckhorn and Greif Packaging, who are suppliers of packaging needs; and, C.H. Robinson, who provide logistics and supply chain consulting services and global warehousing, Monsanto can move its products efficiently and effectively through the supply chain (“Engaging with Monsanto”, n.d.).

Through the use of distributors, independent retailers and dealers, agricultural cooperatives and agents, Monsanto can market and sell its products and services to farmers in every agricultural region of the world (“Annual Report”, 2015). In 2015, Monsanto was recognized as a CIO 100 Award Winner. By teaming up with a logistics provider, Monsanto was “able to use sensors to track real time location and temperature in the routing of seed shipments, ensuring that problem scenarios including overly hot conditions could be mitigated, reducing loss and optimizing operations” (“Monsanto Recognized”, 2015).

Marketing & Sales

Monsanto distributes seeds and other products worldwide which requires tremendous distribution channels and extensive customer relationships. The company is promoting itself through social awareness projects such as WEMA (Water Efficient Maize for Africa) and Seedbed of the Future. Monsanto is also involved in other youth-focused partnerships which help to put the company in the spotlight regarding social responsibility standards and to serve as a platform in which to market itself. In 2015, Monsanto spent \$75 million on advertising and

promotional costs (“Annual Report”, 2015). Social media allows the company to maintain direct business-to-customer relationships through consistent and frequent activity on sites such as LinkedIn, Facebook, YouTube and Twitter. At this time, the vast majority of the company’s marketing efforts are directed towards satisfying existing customers and improving sales.

Monsanto also controls a majority market share as a provider of agricultural products that allows it to position its products for success. From using its resources and technology, Monsanto aims to help smaller companies grow. Its expansion strategy continues to be to grow the company through acquisitions and global partnerships.

Support Functions

Firm Infrastructure

In 2003, Hugh Grant announced a few changes to the company’s infrastructure in order to better fit the company’s change from a chemical business to a biotech business (“Monsanto CEO”, 2003). When making this transition, Grant felt something he came to rely on was cross-functional teams and that these teams added to the company’s competitive advantage. Managers formed temporary teams in order to solve specific problems, and the teams would disassemble when the problems were fixed. Something else Grant implemented was weekly meetings to cover strategic decision-making. This strategic way of thinking was spread throughout the entire company, further adding to Monsanto’s competitive edge (Hindo, 2008). These structural changes have taken Monsanto from gross profits of roughly \$800 million in 2003 to over \$8 billion in 2015 (“Monsanto Co. Reports”; “2015 Annual Report”).

Human Resource Management

Monsanto works to ensure quality performance, products and services by making a point to hire and cultivate quality employees. Hiring in a variety of fields including engineering, sales, research, technology and finance, certain criteria are required in every field at every level: progressive thinking, a passion for the field and the ability to be flexible and adapt to advancement in industry and technology (“Careers”, 2015). Hiring quality employees is not enough though. Monsanto also makes an active effort to provide benefits to its employees, and stresses the importance of training and professional development. Performance rewards programs, benefits including personal time and retirement, leadership exchanges, learning series and tuition reimbursement are all ways the Monsanto works to nurture and retain employees and grow the company as a whole (“Who Are We”, 2015).

Procurement

In 2015, Monsanto was one of three companies to win an “Excellence Award” from IHS Inc. because of its strong ability to make the best decisions with the right information. The procurement team, with the help of IHS, was able to save the company \$680 million in costs, which included changing suppliers and combining management of logistics and procurement. When first meeting with IHS, the team only planned on saving \$500 million in costs, surpassing its goal by approximately 35% (IHS, 2015). Monsanto’s procurement team adds value to the company, as well as benefiting its customers and shareholders.

Technology Development

With the ever-changing technological environment, the company must not only embrace technology to keep pace with its competition, but must also innovate and develop new technologies to keep ahead. Monsanto has taken strides to embrace the growing trends of mobile compatibility using apps such as AgSeedSelect and Agindex to inventory and maintain portfolios of crops and seeds; Climate and FieldView to help farmers monitor changes around growing crops; and Genuity Rootworm Manager, Yield Check, and WeedManager to help communicate levels of both risk and yield for crops in certain regions between farmers (“U.S. 2015 Technology Use Guide”, 2015). In 2015, Monsanto invested \$1.5 billion into the R&D of new tools for farmers. The vast majority of these efforts were focused on “new biotech traits, elite germplasm, breeding, new variety and hybrid development, and genomics research” (Monsanto, 2015b). Attempting to protect and monopolize newly developed technologies has led Monsanto to patent several of its new developments including technology for the utilization of high oleic soybean oil in industry application in November of 2015 and technology for the use of high pufa oil in industry application in May of 2014 (“Operations & Technology”, n.d.).

Key Resources & Core Capabilities: VRIO Analysis (Refer to Figure 3)

<u>Resources&Capabilities:</u>	<u>CoreCompetencies:</u>
● Raw Materials ● Skilled Labor Force ● Experienced Legal Team ● Supply Chain Management ● Ability to Raise Capital & Financial Leverage	● Creation of Raw Materials ● Breeding of Seeds ● Proprietary Knowledge & Intellectual Property ● Research & Development (R&D)

In order for a company to have a sustainable competitive advantage over its competitors, its resources and capabilities must not only be valuable, rare, and inimitable, but the company must also be organized to exploit these resources and capabilities. Based on the information provided in the VRIO analysis chart (Refer to Figure 3), it is apparent that Monsanto has a number of core competencies that allow the company to have a sustainable competitive advantage in many fundamental areas of business.

AreasofCoreCompetency

Creation of Raw Materials

Monsanto’s capability to create raw materials proves to be both valuable and rare. The fact that the company can create raw materials allows for the manufacturing of unique products that are highly inimitable by competitors. The company exploits this ability by transforming the raw materials it creates into profitable, sustainable, and matchless products.

Breeding of Seeds

Monsanto’s ability to utilize biotechnology to develop specific strains of seeds allows the company to bring value to the various relationships within its supply chain. Through the development and breeding of specific strains of seeds, Monsanto can offer a variety of unique

seeds to its customers. Monsanto's seeds, which include strains that are genetically modified and trait-specific, are not only rare, but exclusive and nearly impossible for competitors to imitate. Overall, Monsanto showcases its ability to exploit this core competency through its focus on production, R&D, and sustainability. In utilizing this core competency, Monsanto has developed strains of seeds that use one third of the resources necessary to grow them, which helps to ensure efficient water use and healthy soil maintenance, as well as seeds that can withstand drought conditions. Monsanto's ability to successfully utilize biotechnology to create these unique products has led to a sustainable competitive advantage for the company.

Proprietary Knowledge & Intellectual Property

Both proprietary knowledge and intellectual property play a huge role in Monsanto's ability to operate efficiently. Proprietary knowledge is the private, tacit information and production processes the company uses to create its products. Through the use of proprietary knowledge and intellectual property such as patents and copyrights, Monsanto not only has the ability to create products that are valuable, rare, and inimitable, but the ability to protect those products from being imitated by competitors. Additional protections include exclusivity agreements with certain suppliers and distributors and long term contracts with customers that promote loyalty. The forms of intellectual property that Monsanto has provides the company with legal protection against competitors reproducing its genetically modified and trait-specific seeds or pesticide products. In the event that competitors did reproduce its products, theft of intellectual property would occur and Monsanto could proceed with legal action.

There is, however, a rising concern for how long the protection offered from intellectual property will last. For example, the patent for Roundup has already expired; but, fortunately, "Monsanto says it's not worried about the patent expiration. It developed a new version, Roundup Ready 2, several years ago that it says works better and whose patents are still in force" (Regalado, 2015). Additionally, the company has a third generation Roundup patent that is pending approval. In the end, as long as Monsanto stays innovative and keeps up with intellectual property expiration dates it will be organized to exploit this core competency, its products will be protected, and it will sustain its competitive advantage over competitors.

Research & Development (R&D)

R&D creates value for Monsanto as each process assists in the creation of new products. As products such as genetically modified and trait-specific seeds are created, the potential to offer value to customers rises. R&D is rare in that it takes a generous amount of capital to complete successfully. Since 2008, an average of \$1.37 billion has been spent annually on fulfilling R&D needs. \$1.5 billion was spent on R&D last year alone (Monsanto, 2015b). Due to the excessive amount of capital that these processes require, Monsanto has an advantage in creating products that are difficult for competitors to imitate. In order for Monsanto's products to be imitated, competitors would have to be able to spend millions, if not billions of dollars, on R&D. Not only has this allowed the company to maximize its available resources, but to continue improving its current products as well as to create new genetically modified strains of seeds that will help to produce higher crop yields.

Analysis: Overall, Monsanto's ability to sustain a competitive advantage over its competitors is contributable to each of its areas of core competency. Each area of competency satisfied all of the VRIO criteria scoring a "Yes" in each of the VRIO categories. Monsanto's ability to create raw materials and breed new strains of seeds certainly gives it the most advantage over the competition. The company's utilization of R&D and intellectual property surely aids in sustaining a competitive advantage, yet these competencies are not limited to Monsanto alone. Consistently spending money on R&D has put Monsanto far ahead of the learning curve and it appears to be difficult for any of its competitors to catch up. By being one step ahead of its competitors, Monsanto can ensure its future in the sustainable agriculture industry.

Identification of Unique Value

Monsanto creates and sustains value by exploiting each of its core competencies. By leveraging extensive R&D and innovative technology, Monsanto can provide highly inimitable products to its customers, which in turn creates unique value. This value is sustained through the use of intellectual property such as patents and copyrights to protect these products. In addition to creating and sustaining value through each of its core competencies, Monsanto creates value by maintaining key relationships within the supply chain. By adding to unique value through each level of the supply and value chains and staying organized to exploit its core competencies, the company has the ability to maximize its fiscal and perceived value across all areas for many years to come.

Internal Factor Evaluation (IFE) Matrix (Refer to Figure 4)

The IFE matrix was used to evaluate each of Monsanto's internal strengths and weaknesses within various functional areas of business. According to the IFE matrix, the company received a total weighted score of 2.92 out of a potential total score of 4. This moderately high score indicates that Monsanto is in a strong position within the industry. Monsanto's strengths most certainly outweigh its weaknesses as a whole. While the company's strengths outweigh its weaknesses, it is important to keep in mind that with the IFE matrix, strengths are weighed as either major (4) or minor (3) and that weaknesses are weighed as either minor (2) or major (1).

Monsanto's strengths, which include a leading market position, R&D, proprietary knowledge and intellectual property, relationships within the supply chain, and a strong brand portfolio and differentiated products, accounted for 2.16 of the 2.92 total. Four out of five of Monsanto's strengths scored a 4 and are considered major as they play a key role in the company's ability to sustain a competitive advantage over competitors. The company's ability to maintain relationships within the supply chain scored a 3 and is the only strength that plays a minor role in the company's ability to sustain a competitive advantage over the competition. The company's weaknesses, which include a tarnished reputation and brand image, high costs and levels of indebtedness, a lack of returns on investments, a limited market share, and delays in product pipeline, only accounted for a mere .76 out of the 2.92 total. A limited market share is the only one of Monsanto's weaknesses to score a 1 and is considered a major drawback in its attempt to sustain a competitive advantage within the industry.

Overall, Monsanto's ability to efficiently exploit its core competencies is showcased in its strengths outweighing its weaknesses. In the end, it is apparent that the company is a strong industry leader that has the potential to remain profitable in the long-term future.

Financial Analysis

Current Financial Position

After a thorough analysis of Monsanto's financial activity ratios, it has been determined that Monsanto is currently in a strong financial position. An internal financial analysis was conducted by comparing the company's current profitability, liquidity, and efficiency ratios to past performance periods, fiscal years 2011 to 2015. In addition to an internal financial analysis, an external financial analysis was conducted by comparing the company's profitability, liquidity, and efficiency ratios next to competitors DuPont, Syngenta AG, and Agrium, Inc. and to industry averages.

Internally, when comparing Monsanto's financial performance over the past five years, it was concluded that the company has seen significant growth in sales and overall profitability. The company had a financial peak from 2014 to 2015, after which slight declines in profitability and efficiency ratios occurred. Although many stakeholders are currently concerned with this decrease, the overall trends since 2011 show that Monsanto has improved its financial position significantly despite these recent declines. Externally, when comparing Monsanto's financial activity ratios to both its competitors and industry averages, it was concluded that investors experienced higher returns with Monsanto and that the company had less trouble paying off debts. The data gathered from both the internal and external financial analyses showcases that Monsanto's current financial position looks very promising.

Internal Financial Activity Ratio Analysis

Current vs. Past Period Performance (Refer to Figure 6)

Over the past five years, Monsanto has made significant strides in terms of growth and productivity. Although these increases in productivity activities and growth have produced upturns in net sales and profits, they have also caused an intensification of operating expenses and long-term debt.

Profitability

Since 2011, Monsanto has seen notable increases in several profitability ratios including its return on equity (ROE), return on assets (ROA), return on investments (ROI), and earnings before interest, taxes, depreciation and amortization (EBITDA).

ROE indicates profits the company is able to generate from shareholder investments, as well as the company's ability to provide positive returns to shareholders. Monsanto's ROE has more than doubled since 2011, seeing an increase of 18.28%. ROE is also the only profitability ratio that has seen an increase from the 2014 fiscal year to 2015 fiscal year with an increase of 6.31%. The doubling of this ratio over the past five years implies significant increases in common stock and profitability, and possible dividends for shareholders.

ROA indicates how well management is using company assets to generate earnings. A high ROA signifies profitability for the company as its net income would be of greater value than

its total assets. Although Monsanto's ROA has increased by 2.02% in the past five years, indicating long-term growth, this ratio has seen a decline from the 2014 fiscal year to the 2015 fiscal year by 2.31%.

ROI indicates the profit or loss from an investment. A positive ROI indicates profit while a negative ROI indicates loss. Monsanto's ROI has increased by 2.98% in the past five years and has decreased from the 2014 fiscal year to the 2015 fiscal year by 4.64%.

EBITDA consists of net income with taxes, interest, and amortizations added back to it. This allows the company to focus on operating decisions without the effects of accounting and financing decisions. Monsanto's EBITDA increased by 2.02% in the past five years and decreased from the 2014 fiscal year to the 2015 fiscal year by 1.39%.

Monsanto has seen long term growth in profitability from 2011 to 2015, peaking in the 2014 fiscal year for every financial activity ratio outlined above. Declines from 2014 to 2015 should not detract stakeholder confidence as long-term growth has been significant. Also, ROE has continued to increase despite public relations issues, recession and international laws, and regulations hindering its operations within the last few years.

Liquidity

Over the past five years, Monsanto has maintained favorable liquidity ratios as far as its current ratio, quick ratio, and net current assets.

A company's current ratio compares its ability to pay back current liabilities, such as debts and accounts payable, with its current assets, such as cash, inventories, and accounts receivable. A current ratio over 1.00 indicates that the company's current assets are greater than current liabilities, signifying favorable liquidity. Since 2011, Monsanto's current ratio has increased by 0.19 from 1.86 to 2.05. Since the 2014 fiscal year, a low in the last five years despite peaks in other areas, the company's current ratio has increased by 0.16.

The quick ratio, or acid test ratio, indicates liquidity and financial health in the same manner as the current ratio except some assets that may not be converted to cash as easily are excluded, such as inventory. Although Monsanto's quick ratio has increased by a mere 0.01 in the last five years, the company saw a fairly significant increase of 0.18 from the 2014 fiscal year to the 2015 fiscal year.

A capital of total assets ratio, or net current assets, indicates the amount of assets and liabilities associated with day-to-day activities. The higher the net current assets, the more capable a company is to pay back its liabilities quickly and completely. Monsanto's net current assets have increased by 4.29% in the past five years. From the 2014 fiscal year to the 2015 fiscal year, the company's net current assets increased by 4.09%.

Monsanto has demonstrated relatively consistent behavior and favorable liquidity ratios in the past five years, seeing peaks in the 2013 fiscal year and lows in the 2014 fiscal year despite 2014 being a peak year in almost every other financial aspect and ratio. At no point in the past five years have any of the liquidity ratios indicated an inability to pay back liabilities. The 2015 fiscal year demonstrates recovery from slight lows in liquidity and should instill confidence in shareholders.

Efficiency

In the past five years, Monsanto has proven to be overall inefficient as indicated by its total assets turnover, but has proven to be relatively efficient in specific areas including accounts payable turnover (A/P turnover), accounts receivable turnover (A/R turnover), and inventory turnover.

Total assets turnover gauges the company's ability to generate revenues or sales per dollar in total assets. A low total asset turnover signifies that a company is not able to efficiently generate revenue per each of its assets, however, these ratios should be compared to the industry average since companies with high profit margins tend to have lower asset turnover ratios. Monsanto's total asset turnover has remained below 1.00 over the past five years, increasing by a mere 0.05 since 2011. Since the 2014 fiscal year, the company has seen a decrease of 0.06.

A/P turnover indicates a company's ability to efficiently repay its suppliers by measuring how many times per period it pays its average accounts payable amount. An A/P turnover that increases signifies that a company is able to pay off suppliers more quickly. Monsanto's A/P turnover has increased by 0.91 in the past five years. From the 2014 fiscal year to the 2015 fiscal year, there was a decrease of 0.13.

A/R turnover indicates a company's ability to efficiently extend and collect on credit as well as how efficiently a company is using its assets. A high A/R turnover can signify that a company is being efficient in its use of assets or that it has conservative policies on extending credits and collecting debts. Monsanto's A/R turnover has increased by 1.01 in the past five years. From the 2014 fiscal year to the 2015 fiscal year, there was a decrease of 0.30.

Inventory turnover represents how many times a company sells or replaces inventory over the course of a given time period. A low inventory turnover could signify too much inventory sitting in storage rather being sold or that inventory is unsellable due expiration. Monsanto's inventory turnover has decreased by 0.23 over the past five years with a decrease of 0.31 from the 2014 fiscal year to the 2015 fiscal year.

Overall, Monsanto's total asset turnover strongly indicates inefficiency in the company and its overall decline in inventory turnover further solidifies this conclusion. Consistently maintaining a total asset turnover ratio below 1.00 indicates that, in the past five years, Monsanto has not been able to efficiently increase revenues per dollar of total assets. Though inventory turnover can be considered efficient over the course of the last five years, the decline in efficiency is notable and should be of concern to the company and its shareholders.

External Financial Activity Ratio Analysis

Competitor and Industry Comparison (Refer to Figure 7)

Current competitor and industry comparisons show Monsanto to be a powerhouse in the industry. When comparing the company's profitability, liquidity, and efficiency ratios to those of its competitors and to the industry average, Monsanto stands out as a dominating industry giant. Nearly all of the company's financial activity ratios, with the exception of its efficiency ratios, are higher than both the ratios of the competition and the industry averages.

Profitability

Monsanto's ROA (10.54%) trumps that of competitors DuPont (4.29%), Syngenta AG (6.88%), and Agrium, Inc. (5.90%), as well as the industry average of 6.90%. This tells investors that Monsanto generates more revenue for each dollar that is spent on assets than its competitors. Monsanto's ROE (33.13%) is practically double that of the competition and is nearly 13 points over the industry average of 20.24%. The company's above average ROE shows that it generates more income per each dollar of shareholders' equity. Monsanto's EBITDA margin (28.03%) is nearly 9 points over the industry average of 19.53%, which shows investors that the company has less operating expenses eating into its bottom line. Finally, the company's ROI (16.12%) is also higher than that of its competitors and the industry average of 13.46%, although Syngenta AG is not far behind at 14.26%. These ratios indicate that Monsanto is, overall, doing a better job at generating profits than its competitors and above average in terms of profitability as compared the industry as a whole.

Liquidity

Monsanto maintains higher quick and current ratios than both its primary competitors and the industry average indicating that the company operates with lower liabilities than current assets. Monsanto's quick ratio (1.20) is 0.22 points over the industry average of 0.98 while its current ratio (2.05) is 0.28 points over the industry average of 1.77. Compared to its competitors, Monsanto shows that it is in a much better position to pay off its debts without having to rely solely on sales or long-term assets. In order to be in a comfortable position to pay off debts, companies should have a current ratio of 2.0 or higher. Monsanto is the only company out of its competitors to exceed that goal. Additionally, the company's net current assets amount to 24.85% of total assets, which surpasses the industry average of 20.3% by nearly 5 points.

Efficiency

Considering Monsanto's size, the company has maintained efficiency quite well. While the company is not a leader in efficiency ratios, Monsanto is not far behind the competition. Monsanto has the second highest total asset turnover ratio over Agrium, Inc. at 0.86, 0.11 points over the industry average of 0.75. Monsanto's inventory turnover ratio (1.92) is one of the lowest, 0.30 points under the industry average of 2.22. The company's A/P turnover ratio (14.28) is the highest among the competition and surpasses the industry average of 8.58 by almost 6 full points. Monsanto has the second highest A/R turnover ratio (5.69), only a mere half a point over the industry average of 5.11.

Long-Term Objectives

<u>Efficiency:</u> • Operations: Revenue & Profit Growth • Products: Seed Nutrients/Nutrition • Public Perception: Environmental & Legal Issues	<u>Sustainability:</u> • Producing More: Higher Crop Yields • Conserving More: Fewer Resources • Improving Lives: Reducing Hunger
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Monsanto has addressed many long-term objectives that align with both its vision and mission statements. The company's long-term objectives can be placed into two categories: efficiency and sustainability. By focusing on efficiency and sustainability, Monsanto strives to accomplish its long-term objectives which are aided by its key resources and core capabilities, strengths, and external opportunities within the industry.

Efficiency

In terms of efficiency, Monsanto hopes to achieve many targeted objectives including more proficient operations through revenue and profit growth, more nutritious seed variations, and public perception by the rectification of environmental and legal issues.

An ongoing goal for Monsanto is to drive increases in revenue and profit growth. From the 2014 to 2015 fiscal year, there was a slight decrease in profitability ratios (as denoted in Figure 6) that caused distress for stakeholders; however, despite these decreases, the company is currently a leader in the industry. Additionally important to Monsanto is improving its products through nutrient efficiency. By creating "smarter seeds", the company can not only ensure it will improve the nutritional value of its products, but contribute to lowering greenhouse gas emissions, part of the company's sustainability goals (Lee, 2014).

As public perception is a driving factor in consumer purchasing decisions, planting approvals, and regulatory requirements, it is important that Monsanto strives to ensure a positive image for itself. Negative perception of the company comes from the many times Monsanto has sued farmers for using patented seeds illegally and public misconception of GMOs regarding their effect on the environment. In order to repair its image, the company has hired one of the nation's largest public relations firms and created a website dedicated to clearing up these fallacies surrounding GMO (Hopkinson, 2013).

Sustainability

In terms of sustainability, Monsanto has aimed its objectives high. There are three main areas of focus in which the company hopes to achieve sustainable agriculture: producing more, conserving more, and improving lives.

Producing More

As the world's population continues to grow, Monsanto has set the goal of producing higher crop yields. Through breeding, biotechnology, and improved farm-management practices, the company hopes to double the yields of various crops including corn, soybeans, cotton, and spring-planted canola. By doing so, Monsanto can not only produce higher yields but also create stronger seeds that are more drought and pest resistant. In addition, by utilizing improved farm-management practices such as proper tillage, planting depth, and planting population, the company can produce more food for an immensely growing population ("Working to Maximize Yields," n.d.).

Conserving More

The goal of producing more goes hand-in-hand with conserving more because higher crop yields result in less land usage. As the conservation of natural resources is extremely important to Monsanto, it has set the goal of conserving water, land, and energy. Monsanto plans to conserve more by developing seeds that use one-third fewer resources per unit of output while

aiming to decrease habitat loss (“Conserving Resources,” n.d.). By 2020, the company plans to cut its overall water usage by 25% which, depending on weather patterns, has the potential to be the equivalent of saving 30 to 89 billion gallons of water annually. One of the ways that the company hopes to achieve this goal is through drip irrigation. In addition, the company hopes to reduce greenhouse gas emissions (Lee, 2014).

Improving Lives

As a part of Monsanto’s commitment to sustainable agriculture, the company is “aiming to improve lives, including an additional 5 million people in resource-poor farm families by 2020” (“Improving Lives,” n.d.). By placing focus on delivering innovative products, Monsanto can not only improve the quality of life for farmers, their families, and the rural communities in which they reside, but for consumers and society as a whole (“Improving Lives,” n.d.). In addition, the company is committed to improving lives through its dedication to youth development and education programs, human rights advocacy, and corporate giving. Monsanto currently partners with the National 4-H Council; and, in 2014 launched the 4-H Ag Innovators Experience, “a program that promotes workforce skills, knowledge of STEM fields, and interest in agriculture to nearly 10,000 youths each year” (“Youth Focused Partnerships,” n.d.). Since 2006, the company has advocated for human rights and has even adopted its own Human Rights Policy focusing on child and forced labor, compensation, working hours, harassment and violence, discrimination, safety, freedom of association, and legal compliance (“Human Rights Policy”, 2006). Monsanto strives to improve lives through corporate giving both by “investing in the future of agriculture and through philanthropy” (“Corporate Giving,” n.d.).

Analysis of Strategic Alternatives

In order to determine the best strategic plan for Monsanto to achieve these long-term objectives, an extensive review of various strategic tools including an external factor evaluation (EFE) matrix, an internal factor evaluation (IFE) matrix, a SWOT analysis matrix, and a competitive profile matrix (CPM) was conducted. Each of these tools contributed to a thorough, in-depth analysis of the company and provided insight into determining the best strategy for Monsanto to embrace in its operations. Through its long-term objectives, the company hopes to achieve efficiency through its operations, products, and public perception; and, sustainability through producing more, conserving more, and by improving lives.

External Factor Evaluation (EFE) Matrix (Refer to Figure 1)

The analysis of the EFE matrix shows advantages that include innovative advances in technology, a growing population, and a strong global presence. These advantages, which are considered opportunities, support the company’s goals to achieve both efficiency and sustainability. Innovative technologies can aid the company in achieving efficient operations while also producing more through higher crop yields, conserving more environmentally, and improving lives through reducing hunger. A growing population fuels Monsanto’s need to produce more while its strong global presence allows the company to deliver value in more geographic areas. Additionally, the matrix shows the threats the company is exposed to as key areas that need improvement including decreasing stakeholder confidence, competitive markets, and strategic relationships.

In order to overcome decreasing stakeholder confidence, the company must ensure that its goals are aligned with the interests of its stakeholders, all while acting transparently by providing solid criteria for decision-making processes, honest communication, and reviewing and focusing areas of success. Monsanto must safeguard its current competitive advantage by striving to provide better products and more value to its customers versus its competitors. Furthermore, strategic relationships can be improved through more domestic expansions and acquisitions. Improvements in these areas will allow the company the increased potential to achieve its long-term goals of efficiency and sustainability in all areas.

Internal Factor Evaluation (IFE) Matrix (Refer to Figure 4)

The analysis of the IFE matrix shows advantages that include a leading market position, innovative growth through R&D, the utilization of proprietary knowledge and intellectual property, and a strong brand portfolio of differentiated products. These advantages, which are considered strengths, support the company's goals to achieve both efficiency and sustainability. Monsanto's leading market position offers the company an advantage over the competition. As an industry giant with a leading market position, the company is currently in a place to exploit its core competencies and deliver value through its innovative and differentiated products, as well as protect this position through the use of intellectual property. Additionally, the matrix shows the weaknesses the company possesses as key areas that need improvement including a tarnished reputation and brand image, high levels of indebtedness, delays in the production pipeline, and relationships within the supply chain.

In order to strengthen these areas of weakness, Monsanto must not only revamp its reputation by properly addressing the environmental and legal issues that are bringing a negative impact to its image, but reduce its current level of indebtedness by prioritizing the repayment of current amounts outstanding and avoiding taking on further debts. Additionally, the company must strive to improve its efficiency turnover ratios by preventing delays in the production pipeline and streamlining supply chain management. Improvements in these areas will allow Monsanto to achieve more efficient and sustainable operations as a whole.

SWOT Analysis Matrix (Refer to Figure 5)

The evaluation of the SWOT analysis matrix shows advantages of internal company strengths and external opportunities, the ways in which Monsanto's long-term objectives are currently being supported through its utilization of these strengths, and the ways in which the company can embrace opportunities in future operations to better achieve its long-term objectives. Additionally, the SWOT analysis matrix shows disadvantages of company weaknesses and external threats, the ways in which the company needs to improve these areas to better achieve its long-term objectives, as well as the ways Monsanto can prevent threats from hindering its competitive advantage.

Strengths

Monsanto has a large number of strengths, which is one of the reasons why it has a competitive advantage over competitors DuPont, Syngenta AG, and Agrium, Inc. As a leader in the sustainable agriculture industry, it is important that Monsanto continues operations that play on utilizing its strongest resources and capabilities while embracing a future innovative strategy.

Operating in various locations across the globe, Monsanto certainly has a leading market position. This position, which is achieved through the company's ability to successfully exploit its various core competencies in both its domestic and global operations, is a primary advantage over the competition. Through extensive R&D, one of its most important strengths, the company is not only an advocate of investing towards innovation, but a frontrunner in embracing advances in technology. Monsanto's use of proprietary knowledge and intellectual property alongside the average of \$1.37 billion that is invested into R&D annually has surely set the company apart from its competitors. These investments have resulted in the company's capability to fabricate a strong brand portfolio of highly inimitable, differentiated products. In addition, the company maintains its relationships within the supply chain. These relationships are a contributing factor to the company's ability to deliver unique value to its customers.

Weaknesses

While Monsanto is a strong industry leader, it also has areas of weakness, that if not properly managed, can be detrimental for the company's overall success and competitive advantage. In order for Monsanto to sustain its competitive advantage in the industry, it is important that the company address its weaknesses and strive to develop a method to turn deficient areas into stronger, more profitable ones.

Brand image can be one of a company's strongest assets, if properly displayed and protected. While Monsanto has a philanthropic image, it has recently been at the face of controversial issues regarding its GMOs. Naturally, these issues impact the company's reputation and brand image, and therefore affect the public's perception of, and customer confidence in, its products. As the target of many activist efforts, it is important that the company strive to use public relations as well as marketing and advertising tactics to rebuild its image. By doing so, the company can focus on the good it does versus the bad associated with its GMOs.

At the end of the 2015 fiscal year, Monsanto reported a total debt amount of over \$9 billion, an increase of over \$1 billion from the previous year (Business Insights: Global, 2015). Unless the company is able to generate the funds necessary to make payments, this increasingly high level of indebtedness will certainly negatively impact the company by reducing its financial flexibility and affect its overall financial condition (Monsanto, 2015a). Additionally, a lack of return on investments will not only have a negative impact on the company's financial condition, but decrease stakeholder confidence. With excessively large amounts of money invested into R&D and innovative technologies each year, the company has the potential to lose millions, if not billions, of dollars if the returns do not prove to be in its favor.

As market share is a key factor in a company's profitability, a limited market share due to stiff competition in the industry is a weakness for Monsanto. As competitors fight for a leading position in the industry, it is especially important for Monsanto to keep ahead of the competition. If the company fails to continue to be successful with the limited market share it has, there is the potential for serious trouble.

Furthermore, delays in the product pipeline appear to be a weakness for the company. One element of the product pipeline that takes a particularly excessive amount of time is R&D. While the company's focus on R&D is a strength, delays in R&D can lead to delays in other areas of the product pipeline which in turn can result in setbacks in getting the finished product

to the customer. If products cannot be sufficiently delivered to the customer, value will not be created and revenue will not be generated.

Opportunities

Various opportunities exist externally for Monsanto. In order for the company to sustain its competitive advantage over its competitors, it must both acknowledge the opportunities that exist in the market and embrace them in future operations. By taking advantage of prospective opportunities in the market, the company can increase its potential for higher profitability.

The importance of innovative technologies in business are steadily growing. With the rising importance of technology, Monsanto should continue placing focus on investing in R&D. The company's extensive investments in R&D aid in its ability to develop more innovative products and overall growth. If Monsanto continues to invest in innovative technologies through R&D, and further embrace market opportunities, its chances of higher profits will increase.

Within the next ten years, it has been estimated that the world's population will reach 8.1 billion and 9.6 billion by mid-2050. These predicted increases in population brings both the need and demand for more agricultural products (MarketLine, 2015). This opportunity, which is already in line with Monsanto's goal of producing higher crop yields, is one that can be utilized in conjunction with the opportunities of global presence and delivering value, something the company has already taken advantage of.

Monsanto should certainly embrace the opportunity of strategic relationships, which includes both domestic and global expansion and growth opportunities through venture capital and strategic agreements as well as acquisitions. These relationships may potentially aid in building a stronger platform for the promotion of Monsanto's brand image and will help to strengthen its overall market share and revenue growth, one of the company's fundamental long-term objectives (MarketLine, 2015).

Threats

There are a number of threats that Monsanto should be concerned with combatting before any impact to its competitive advantages made. As a result of its tarnished reputation and brand image, high costs and levels of indebtedness, and a lack of return on investments, a rising concern and potential threat for the company is decreasing stakeholder confidence. In order to prevent sinking stakeholder confidence, the company must strive to rebuild its reputation, lower its debt, and earn higher returns on its investments.

As an industry giant that operates both domestically and globally, Monsanto not only has to be concerned with the risks that come with domestic operations but international operations as well. Global operations are subject to higher risk than those of domestic. Potential risks can arise in various areas "including fluctuations in currency values and foreign-currency exchange rates, trade restrictions and policies, investment regulations, governmental instability, and other potentially detrimental governmental practices or policies affecting companies doing business overseas" (MarketLine, 2015). Such risks are all factors Monsanto must keep in mind as each pose a serious threat to the company's current global operations.

Further potential threats include environmental regulations from government agencies such as the Environmental Protection Agency (EPA) and fluctuations in commodity prices. The

EPA, which strives to protect human health, has the ability to regulate environmental processes which can pose a threat to Monsanto's products. Additionally, fluctuations in commodity prices have the potential to be a serious threat to Monsanto. When prices fluctuate, there is a higher chance that costs will increase and sales will decrease. Raises in these prices may negatively impact the company's cost of goods sold (COGS) and force an increase in prices. Hedging strategies may be used in order to lessen this threat for the short-term, but the risks are much more inescapable for the company in the long-term (Monsanto, 2015a).

Operating in a competitive market also poses to be a threat to Monsanto, particularly through the risk of competitor expansion. Even though Monsanto is a leader in the industry, its competitors are also strong. As rivalry within the industry is high, each market participant is fighting to lead the industry. In order to mitigate these risks, it is important for Monsanto to consistently monitor its competitors. By keeping a close watch on its competitors and monitoring the processes and strategic moves that each make, the company can ensure it will keep one step ahead of the competition.

Competitive Profile Matrix (Refer to Figure 2)

The analysis of the CPM shows advantages of the company's free cash flow, seed market share, product quality, adoption of new technologies, focus on R&D, and customer retention. Each of these advantages aid in the company's ability to achieve its long-term objectives of efficiency and sustainability. Additionally, the analysis shows areas in which the company needs improvement including its profit margin and brand reputation. Overall, the analysis shows that Monsanto ranks the highest against its competitors.

In order to achieve its long-term objective of driving increases in revenue and profit growth, the company must improve its profit margin by auditing its current situation including streamlining its current costs, improving its purchasing, and reducing spending. Since the company operates globally, it must also protect itself against currency fluctuations. By leveraging marketing and advertising tactics, the company will not only be able to revitalize its brand reputation, but focus the public's attention on environmental strides such as conservation and preservation and communicate major community points such as family values, youth and education programs, and job creation.

Strategy Recommendations

In order for Monsanto to improve its position in both the industry and market, it will need to improve its image by focusing on marketing campaigns, expanding more domestically, and striving to maintain higher efficiency in multiple areas.

Monsanto should refocus marketing efforts where possible on rebuilding brand image through new marketing campaigns in order to combat issues created by social media and the press. The marketing campaigns presented should incorporate cause, public relations, and search marketing campaign elements. Focusing efforts on cause marketing should be a central area of attention to help associate brand image with positive values and long-term objectives. By placing focus on issues such as feeding the hungry and natural resource conservation, the company can help remove the negative stigma of a substantially large, wasteful corporation. Public relations marketing can be used to control damages caused by negative stigmas associated with GMOs by showcasing the health benefits of the company's products. Finally, focusing on search marketing

elements will help lessen the negative results and present positive, image-friendly results on search engines when users search for information about or related to Monsanto. Marketing media used should be chosen based upon traffic. Prime areas for advertising are search engines, television commercials, and social media platforms such as Facebook and YouTube. As these are primary venues where negative imagery is presented, it would be best for Monsanto to focus on marketing in these areas.

Domestic expansion would benefit Monsanto by limiting the acquisition power of competitors and by generating more domestic profits to combat the new anti-GMO laws impacting large sections of South America and the European Union. Talks to acquire BASF USA, a crop protections company based in North Carolina, could provide better opportunities to improve domestic crops, and would prevent competitors from expanding in the fairly stagnant domestic market. Transitions would be simple, as the two companies have competed in the same industry for years. Other acquisitions of this nature would further solidify Monsanto's role as a leading domestic force in agriculture.

Ratios and current debts indicate a need for Monsanto to set long-term goals towards better efficiency. Monsanto should make strides to manage its current debts, avoid new debts and inefficient turnovers, and to improve its financial efficiency ratios. By doing so, Monsanto can generate more profits and better utilize current assets. Debt management should be addressed through strategic repayment of current debts; efficiency should be improved through better metrics tracking of current assets and a more aggressive stance in the payment of liabilities and fulfillments of customer debts.

Strategy Implementation

Annual Objectives

Refocus Marketing to Improve Brand Image

In the coming year and in the years to follow, Monsanto will need to make strong commitments to improving overall brand image and public perception. Though the company is already making large strides in the area of marketing, these campaigns have been focused upon improving sales and satisfying existing customers rather than bringing in new customers and repairing overall brand image. In the category of social media marketing, Monsanto should aim to post positive image items on behalf of the company and monitor activity quarterly to ensure positive traffic. In search marketing, the company should aim to reduce the number of negative search results in major databases by tagging news releases, social media, and company pages more effectively and efficiently.

Domestic Expansion

Monsanto's domestic expansion should focus on acquisitions and matching or exceeding lost potential profits in international markets due to restrictions on the development and sale of GMOs. In the next year, Monsanto should aggressively pursue and finalize acquisition negotiations with BASF USA; this would be a significant blow to competitors and provide new diversification opportunities for the company. Additionally, some resources allocated to European markets in terms of production and development should be moved to domestic locations, as they will be more efficiently used under these regulations.

Increase Overall Efficiency

Monsanto must make an active effort to improve overall efficiency, particularly in terms of total asset turnover. In the next year, Monsanto should make active efforts to raise its total asset turnover ratio to 0.75 with an overall goal of increasing the ratio to 1.00 in the next three years. Production and sales teams should more efficiently communicate to ensure just-in-time orders are met, and that products are being efficiently turned. In addition to focusing on total asset turnover, Monsanto should attempt to increase its A/R by using a more conservative stance on credit collections.

Organization Issues to be Addressed

Monsanto is currently well-organized in terms of corporate culture, governance, and organizational structure. The company's current culture is one that is family and team-oriented, diverse, and non-hierarchical. Monsanto's corporate governance is achieved by abiding by a strict code of conduct, ethics, and bylaws. By doing so, it can better ensure honesty and integrity not only amongst its partners, but amongst its employees and within other relationships along the supply chain as well. Structurally, Monsanto operates efficiently and effectively by facilitating horizontal and vertical communication. Overall, in order to remain successful in these areas, the company should maintain these organizational and operational processes.

In order to monitor performance and long-term progress towards objectives, Monsanto will need to most closely monitor metrics involving search presence, social media, and efficiency ratios as well as commit training to executive and middle manager promoting commitments to new organizational standards. Marketing teams should monitor social media traffic and insights as well as search results associated with Monsanto in popular databases on a quarterly basis. Additionally, accounting and sales teams should monitor quarterly efficiency ratios closely, paying particular interest to asset turnover and management of A/R and A/P turnover to manage credits. Performance monitoring should also be incorporated into leadership training programs for managers and team leads. Executive level management should oversee strategy implementation closely. Executive and upper level management should meet both quarterly and annually with middle management to assure departments and facilities are meeting standards and objectives in line with the implemented strategies. Institutional commitments to training and bettered efficiency and improved marketing metrics must be solidified and addressed across all levels of management in order to be most effective.

Contingency Plans

If the acquisition of BASF USA or Syngenta AG does not go through, Monsanto should continue to monitor the market for other possibilities to stay ahead of the competition. If acquisitions do not work altogether, continuing to focus heavily on R&D could be helpful since innovative technology has been keeping Monsanto ahead of the competition so far. The additional capital not invested in acquisitions can instead be invested into R&D or paying off debts, which will help improve efficiency ratios. Improving these ratios could increase profits, which would in turn allow the company to focus more on achieving better acquisitions or improving brand reputation. If a focus on improving brand reputation through social media does not gain traction, this indicates that Monsanto should go back to prioritizing sales and satisfaction through other forms of marketing. If being more aggressive in fulfilling customer

debts does not work, the company should consider restricting the amount of goods or services consumers can buy on credit, or put those customers with payment issues on a probationary period where credit payments are restricted.

Strategy Evaluation and Control

Standards/Targets Used as Guidelines

Based on the recommended strategies to improve the company's current organizational challenges and meet long-term objectives, guidelines for evaluation and control have been established including 3-year projections for recommended areas of improvement. For Monsanto to improve its position in both the industry and market it will need to improve its brand image by refocusing marketing campaigns, expanding more domestically by forming strategic relationships and better acquisitions, and striving to maintain higher efficiency in multiple areas including activity ratios, supply chain management, and debt management.

Refocus Marketing to Improve Brand Image

While Monsanto is currently making solid efforts in marketing, the company must refocus its marketing campaign strategy from increasing sales and enhancing customer satisfaction to improving overall brand image. Although \$1.4 billion was spent on accrued marketing programs last year alone, an increase of \$98 million from the previous year, little of that was focused toward improving brand image (Monsanto, 2015a). While increasing sales and enhancing customer satisfaction is important, ensuring that a positive brand image is associated with the company is a serious no matter of concern as public perception drives profitability.

Over the next year, the company should aim to increase allocated marketing spending by \$100 million. This additional funding should be allotted to public relations, and search and social media marketing campaigns focused in improved overall brand image. The company should strive to increase positive search results in popular databases by 10% over the course of the next three years and set a target of 5% increased following on social media per year. Specific social media following targets include 150,000 Likes on Facebook and 100,000 followers on Twitter total in the next three years.

Domestic Expansion

Although Monsanto is a profitable leader in the industry, majority of its sales are from its global operations. During the 2015 fiscal year, approximately 43% of the company's sales, 37% of which derived from its seeds and genomics segment and 54% of which derived from its agricultural productivity segment, originated from legal entities outside of the United States (Monsanto, 2015a). The company should strive to decrease global figures while increasing domestic figures. Over the next year, Monsanto should aim to increase domestic net sales by \$250 million per year in order to balance out projected European-African declines. Particularly, the company should make strides to meet this target through the formation of strategic relationships and better acquisitions. Monsanto should prioritize completing projected domestic corn seed plant expansions as well as making new Field-To-Market alliances in the United States over the next three years.

Increase Overall Efficiency

Financially, one of Monsanto's biggest concerns is improving efficiency, particularly in regards to total asset turnover and A/R turnover. Monsanto should aim to increase total asset turnover by a minimum of 0.08 each year with a goal of .11 each year. The long-term goal should be to not only reach, but exceed, the 1.00 target. In the fourth quarter of the 2015 fiscal year, Monsanto experienced extreme lows in A/R and trade collections, primarily due to the timing of collections. The company should address this issue by developing and implementing more conservative policies in regards to collections, minimizing the number of collections that would occur after the end of the quarter or year. This action would help to aid in increasing A/R turnover. Monsanto should attempt to increase A/R turnover by at least 0.3 per year, setting a goal for an increase of 0.5 per year with a target of matching or exceeding Agrium, Inc.'s A/R turnover, currently 1.48 higher than Monsanto's, within three years.

Monitoring Methods

In order to accommodate strategy recommendations, Monsanto should monitor each area of improvement and the related metrics on both a quarterly and annual basis to ensure standards and targets are being met. Monsanto should continuously analyze the market so that the company is aware of any new entrants, potential threats, or possible acquisition opportunities. The company should strive to constantly check for changes within the market and amongst the competition by keeping competitor response profiles on its strongest competitors. Monsanto should be flexible in its strategy to meet the needs of a constantly changing physical and economic environment for farmers. By ensuring that both the market and its competition are closely watched, Monsanto can not only anticipate any changes, but be prompt to actively and accurately respond and safeguard its current position in the industry. If left unmonitored, competition may gain market share or potential acquisitions which, if lost, could be seriously detrimental to the company.

Monsanto should also constantly monitor its online presence. Brand reputation is a growing concern, so the company should be addressing this promptly. If Monsanto wants to get rid of fallacies surrounding GMOs, then it should be aware of any misunderstandings that exist and address them quickly. Some ways to monitor its online impact are through Facebook Insights, TweetDeck Analytics, and search history tag searches.

Conclusion

Overall, Monsanto is a strong and highly successful company and should strive to further solidify its status as an industry leader by working to improve both brand image and efficiency while expanding domestically. By refocusing marketing efforts on repairing damaged image, the company can address multiple goals and improve public perception. By improving efficiency, the company can increase profitability and achieve long-term conservation and waste reduction goals. Finally, by expanding domestically, the company can address international risks as well as increase potential revenues and prevent competitor growth. The company is, and will continue to be, an intimidating competitor and an innovative force that drives the agricultural industry.

References

- Alliance for Natural Health (ANH). (2011). *Monsanto Flouts Its Own Mission Statement*. Retrieved from <http://anhinternational.org/2011/12/02/does-monsanto-live-up-to-its-mission-statement/>
- Anderson, L. (2014). *Why Does Everyone Hate Monsanto?* Retrieved from <http://modernfarmer.com/2014/03/monsantos-good-bad-pr-problem/>
- Ariel, S. (2015). *What Can You Expect From the Potential Monsanto-Syngenta Deal*. Retrieved from <http://marketrealist.com/2015/12/introducing-mega-deal-monsanto-syngenta/>
- Beasley Jr., C. (2009). *Defending Monsanto*. Retrieved from <http://www.superlawyers.com/missouri/article/Defending-Monsanto/e290bf37-cafc-42da-9c99-a6f2f562a982.html>
- Bromels, J. (2016). *The Dupont-Dow Chemical Merger: A Lot of Hype or a Long-term Opportunity?* Retrieved from <http://www.fool.com/investing/general/2016/01/04/the-dupont-dow-chemical-merger-a-lot-of-hype-or-a.aspx>
- Business Wire. (2015). *Monsanto Recognized as A 2015 CIO 100 Award Winner*. Retrieved from <http://www.businesswire.com/news/home/20150601006139/en/Monsanto-Recognized-2015-CIO-100-Award-Winner>
- Chemical Industry Archives. (2009). *Monsanto Knew About PCB Toxicity for Decades*. Retrieved from <http://www.chemicalindustryarchives.org/dirtysecrets/annistonindepth/toxicity.asp>
- Fortune. (2016). Monsanto. *Fortune 500, 2015*. Retrieved from <http://fortune.com/fortune500/monsanto-197/>
- Gale Business Insights: Global. MONSANTO TECHNOLOGY LLC. *Operations & Technology*. Retrieved from <http://bi.galegroup.com.ezproxy.shsu.edu/global/search?u=txshracd2543#displayGroup=topicOperationsAndTechnology&q=companyTopics^1227624>
- Gale Group. (2016). Monsanto. [company profile]. Retrieved April 22, 2016, from Business Insights: Essentials database.
- Gorman, M., Simmonds, J., Ofiesh, C., Smith, R., & Werhane, P. (n.d.). *Monsanto and Intellectual Property [Case Study]*. Charlottesville, Virginia: University of Virginia.
- Highbeam Business. (1996). *Monsanto's Mission: Total Customer Satisfaction*. Retrieved from <https://business.highbeam.com/1184/article-1G1-18532153/monsanto-mission-total-customer-satisfaction>
- Hindo. (2008). *Issue: Monsanto: Seeding the Ground for Growth*. Retrieved from <http://www.bloomberg.com/bw/stories/2008-07-29/issue-monsanto-seeding-the-ground-for-growthbusinessweek-business-news-stock-market-and-financial-advice>

- Hopkinson, J. (2013). *Monsanto's makeover*. Retrieved from <http://www.politico.com/story/2013/11/monsanto-agriculture-image-problem-100442>
- IBIS World. (2015). Competitive Landscape: Market Share Concentration. Retrieved from IBISWorld database <http://clients1.ibisworld.com.ezproxy.shsu.edu/reports/us/industry/competitivelandscape.aspx?entid=2001>
- IHS. (2015). IHS SPECTRUM Excellence Awards Honor Global Industry Leaders at Economics & Country Risk Conference and Pricing & Purchasing Summit [Press release]. Retrieved from <http://press.ihs.com/press-release/economics-country-risk/ihs-spectrum-excellence-awards-honor-global-industry-leaders-ec>
- Kennedy, R. (2016). 'Monsanto Rider' Could Shield Chemical Giant from PCB-related legal claims. Retrieved from http://www.earthisland.org/journal/index.php/elist/eListRead/monsanto_rider_could_shield_chemical_giant_from_pcb-related_legal_claims/
- Kollipara, P. (2015, March 3). Proof he's the Science Guy: Bill Nye is changing his mind about GMOs. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/energy-environment/wp/2015/03/03/proof-hes-the-science-guy-bill-nye-is-changing-his-mind-about-gmos/>
- Lee, G. (2014). *From the Survey: Monsanto Company*. Retrieved from [http://www.valueline.com/Stocks/Highlights/From the Survey Monsanto Company.aspx#.Vr5mgHnSnIV](http://www.valueline.com/Stocks/Highlights/From_the_Survey_Monsanto_Company.aspx#.Vr5mgHnSnIV)
- Lee, J. (2014, May 1). Monsanto Announces Aggressive Sustainability Goals. Retrieved March 20, 2016 from <http://www.triplepundit.com/2014/05/monsanto-announces-aggressive-sustainability-goals/>
- MarketLine. (2015, December 30). Monsanto Company SWOT analysis. (Reference Code 68BBC79A-483A-41B1-AAB1-A2F43AAF5BF8) [Company profile]. Retrieved from Business Source Complete database.
- Mergent Online. (2016). *Monsanto Company Financials*. Retrieved from Mergent Online database <http://www.mergentononline.com.ezproxy.shsu.edu/companyreports.php>
- Mitchell, D. (2014). *Why Monsanto always wins*. Retrieved from <http://fortune.com/2014/06/26/monsanto-gmo-crops/>
- Monsanto. (n.d.). *Board of Directors*. Retrieved from <http://www.monsanto.com/whoweare/pages/board-of-directors.aspx>
- Monsanto. (2013). *Board of Directors' Charter and Corporate Governance Guidelines*. Retrieved from <http://www.monsanto.com/whoweare/pages/board-of-directors-charter.aspx>
- Monsanto. (n.d.). *Careers*. Retrieved from <http://www.monsanto.com/whoweare/pages/default.aspx>

Monsanto. (n.d.). *Conserving Resources While Maximizing Yields*. Retrieved from <http://www.monsanto.com/improvingagriculture/pages/conserving-more.aspx>

Monsanto. (n.d.). *Company History*. Retrieved from <http://www.monsanto.com/whoweare/pages/monsanto-history.aspx>

Monsanto. (n.d.). *Corporate Giving*. Retrieved from <http://www.monsanto.com/whoweare/pages/corporate-giving.aspx>

Monsanto. (n.d.). *Engaging with Monsanto*. Retrieved from <http://www.monsanto.com/whoweare/pages/engaging-with-monsanto.aspx>

Monsanto. (n.d.). *How Monsanto Prices Seeds*. Retrieved from <http://www.monsanto.com/newsviews/pages/seed-prices.aspx>

Monsanto. (n.d.). *Improving Lives Through Sustainable Agriculture*. Retrieved from <http://www.monsanto.com/improvingagriculture/pages/improving-lives.aspx>

Monsanto. (n.d.). *Monsanto Growth Ventures*. Retrieved from <http://www.monsanto.com/whoweare/pages/monsanto-growth-ventures.aspx>

Monsanto. (n.d.). *Monsanto Viewpoints*. Retrieved from <http://www.monsanto.com/newsviews/pages/issues-and-answers.aspx>

Monsanto. (n.d.). *Our Commitment to Sustainable Agriculture*. Retrieved from <http://www.monsanto.com/whoweare/pages/our-commitment-to-sustainable-agriculture.aspx>

Monsanto. (n.d.). *Our Pledge*. Retrieved from <http://www.monsanto.com/whoweare/pages/monsanto-pledge.aspx>

Monsanto. (n.d.). *Products*. Retrieved from <http://www.monsanto.com/products/pages/default.aspx>

Monsanto. (n.d.). *Youth Focused Partnerships*. Retrieved from <http://www.monsanto.com/improvingagriculture/pages/youth-focused-partnerships.aspx>

Monsanto. (n.d.). *Who We Are*. Retrieved from <http://www.monsanto.com/whoweare/pages/default.aspx>

Monsanto. (n.d.). *Working to Maximize Yields*. Retrieved from <http://www.monsanto.com/improvingagriculture/pages/producing-more.aspx>

Monsanto. (2003). *Monsanto Chief Executive Officer Announces Changes to Organizational Structure and Management Team*. Retrieved from <http://news.monsanto.com/press-release/monsanto-chief-executive-officer-announces-changes-organizational-structure-and-manage>

Monsanto. (2004). *Monsanto Company Reports Financial Results for Periods Ended Dec. 31, 2003 and 2002*. Retrieved from <http://news.monsanto.com/press-release/monsanto-company-reports-financial-results-periods-ended-dec-31-2003-and-2002>

- Monsanto. (2006, April 19). *Human Rights Policy*. Retrieved from <http://www.monsanto.com/whoweare/documents/monsanto%20human%20rights%20policy.pdf>
- Monsanto. (2011). *2011 Corporate Social Responsibility and Sustainability Report*. Retrieved from http://www.monsanto.com/sitecollectiondocuments/csr_reports/2011-csr.pdf
- Monsanto. (2012). *Materiality – Charting Our Course*. Retrieved from <http://sustainability.monsanto.com/commitments/materiality-charting-our-course>
- Monsanto Corporate Engagement. (2012). *World Population Day: How Do We Feed A Growing Population?* Retrieved from <http://discover.monsanto.com/posts/world-population-day-how-do-we-feed-a-growing-population/>
- Monsanto. (2013). Labeling food and ingredients developed from GM seed. Retrieved from <http://www.monsanto.com/newsviews/pages/food-labeling.aspx>
- Monsanto. (2014). *2014 Sustainability Report*. Retrieved from <http://www.monsanto.com/whoweare/pages/corporate-reports.aspx>
- Monsanto. (2015a). *2015 Annual Report*. Retrieved from <http://www.monsanto.com/whoweare/pages/corporate-reports.aspx>
- Monsanto. (2015b). *Corporate Profile*. Retrieved from <http://www.monsanto.com/investors/pages/corporate-profile.aspx>
- Monsanto. (2015c). *Political Disclosures*. Retrieved from <http://www.monsanto.com/whoweare/pages/political-disclosures.aspx>
- Monsanto. (2015d). *U.S. 2015 Technology Use Guide*. Retrieved from <http://www.monsanto.com/sitecollectiondocuments/technology-use-guide.pdf>
- Monsanto. (2016a). Monsanto Achieves WorldatWork's Alliance for Work-Life Progress (AWLP) Work-Life Seal of Distinction. Retrieved from <http://news.monsanto.com/news/monsanto-achieves-worldatworks-alliance-work-life-progress-awlp-work-life-seal-distinction>
- Monsanto. (2016b). *Monsanto Announces Agreement with Securities and Exchange Commission*. Retrieved from <http://news.monsanto.com/press-release/corporate/monsanto-announces-agreement-securities-and-exchange-commission>
- Morningstar. (2016a). *Growth, profitability, and financial ratios for E.I. du Pont de Nemours & Co*. Retrieved from <http://financials.morningstar.com/ratios/r.html?t=DD>
- Morningstar. (2016b). *Growth, profitability, and financial ratios for Monsanto Co*. Retrieved from http://financials.morningstar.com/ratios/r.html?t=MON®ion=USA&culture=en_US
- Philpott, T. (2015). *Move over, Monsanto: The Pesticide and GMO Seed Industry Just Spawned a New Behemoth*. Retrieved from

<http://www.motherjones.com/tom-philpott/2015/12/dupont-dow-merger-spwans-new-pesticidegmo-seed-behemoth>

PR Newswire. (2011). Monsanto's Hugh Grant Named 2010 CEO of the Year [Press release].

Retrieved from

<http://www.prnewswire.com/news-releases/monsantos-hugh-grant-named-2010-ceo-of-the-year-97061349.html>

Regalado, A. (2015). *As Patents Expire, Farmers Plant Generic GMOs*. Retrieved from

<https://www.technologyreview.com/s/539746/as-patents-expire-farmers-plant-generic-gmos/>

Root Inc. (n.d.). *Monsanto: Growing Understanding of Strategy*. Retrieved from

https://www.rootinc.com/case_studies/monsanto-growing-understanding-strategy/

Scafer, S. (2014). Battle for Bags. *Farm Journal Magazine*. Retrieved from

http://www.agweb.com/article/battle_for_bags_naa_sara_schafer-naa-sara-schafer/

Simpson, S.D. (2014). *Why is Monsanto Evil, but DuPont Isn't?* Retrieved from

<http://www.investopedia.com/articles/investing/061913/why-monsanto-evil-dupont-isnt.asp>

Solomont, E.B. (2012). *Monsanto sees 300 percent return on seed R&D spending*. Retrieved

from <http://www.bizjournals.com/stlouis/blog/2012/11/monsantos-65-billion-roi.html>

Appendix

Figure 1: External Factor Evaluation (EFE) Matrix

External Factor Evaluation (EFE) Matrix			
External Opportunities	Weight	Rating	Weighted Score
Innovative Technology	.15	4	.60
Growing Population	.10	4	.40
Global Presence	.08	4	.32
Delivering Value	.10	3	.30
Strategic Relationships	.07	3	.21
External Threats	Weight	Rating	Weighted Score
Decreasing Stakeholder Confidence	.10	2	.20
Global Operations Risks	.05	3	.15
Environmental Regulations	.12	3	.36
Fluctuations in Commodity Prices	.08	4	.32
Competitive Market	.15	2	.30
Total Weighted Score	1.00	-	3.16

Response Legend: Poor (1); Below Average (2); Above Average (3); Superior (4)

Figure 2: Competitive Profile Matrix (CPM)

Competitive Profile Matrix (CPM)									
		Monsanto		E.I. du Pont de Nemours Company		Syngenta AG		Agrium, Inc.	
Critical Success Factors	Weight	Rating	Score	Rating	Score	Rating	Score	Rating	Score
Free Cash Flow	.12	4	.48	2	.24	2	.24	1	.12
Seed Market Share	.10	4	.40	3	.30	2	.20	1	.10
Product Quality	.15	4	.60	3	.45	3	.45	3	.45
Adoption of New Technology	.12	4	.48	4	.48	3	.36	3	.36
Focus on Research & Development	.15	4	.60	4	.60	3	.45	1	.15
Profit Margin	.08	3	.24	3	.24	3	.24	3	.24
Customer Retention	.13	4	.52	3	.39	4	.52	3	.39
Brand Reputation	.10	1	.10	3	.30	3	.30	4	.40
Innovative Culture	.05	4	.20	4	.20	4	.20	4	.20
Total	1.00	-	3.62	-	3.20	-	2.96	-	2.41

Response Legend: Poor (1); Below Average (2); Above Average (3); Superior (4)

Figure 3: VRIO Analysis

VRIO Analysis						
Resources & Capabilities		V	R	I	O	Results
Raw Materials		Yes	No	No	Yes	Competitive Parity
Skilled Labor Force		Yes	No	No	Yes	Competitive Parity
Experienced Legal Team		Yes	No	No	Yes	Competitive Parity
Supply Chain Management		Yes	No	Yes	Yes	Competitive Parity
Ability to Raise Capital & Financial Leverage		Yes	No	Yes	Yes	Competitive Parity
Core Competencies	Creation of Raw Materials	Yes	Yes	Yes	Yes	Competitive Advantage
	Breeding of Seeds	Yes	Yes	Yes	Yes	Competitive Advantage
	Proprietary Knowledge & Intellectual Property	Yes	Yes	Yes	Yes	Competitive Advantage
	Research & Development (R&D)	Yes	Yes	Yes	Yes	Competitive Advantage

Figure 4: Internal Factor Evaluation (IFE) Matrix

Internal Factor Evaluation (IFE) Matrix			
Internal Strengths	Weight	Rating	Weighted Score
Leading Market Position	.10	4	.40
Research & Development (R&D)	.14	4	.56
Proprietary Knowledge & Intellectual Property	.12	4	.48
Strong Brand Portfolio & Differentiated Products	.12	4	.48
Relationships within the Supply Chain	.08	3	.24
Internal Weaknesses	Weight	Rating	Weighted Score
Tarnished Reputation & Brand Image	.06	2	.12
High Costs & Levels of Indebtedness	.10	2	.20
Lack of Returns on Investments	.08	2	.16
Limited Market Share	.12	1	.12
Delays in Product Pipeline	.08	2	.16
Total Weighted Score	1.00	-	2.92

Legend: Major Weakness (1); Minor Weakness (2); Minor Strength (3); Major Strength (4)

Figure 5: SWOT Analysis Matrix

SWOT Analysis Matrix		
Internal Environment	Strengths: 1. Leading Market Position 2. Research & Development (R&D) 3. Proprietary Knowledge & Intellectual Property 4. Strong Brand Portfolio & Differentiated Products 5. Relationships within the Supply Chain	Weaknesses: 1. Tarnished Reputation & Brand Image 2. High Costs & Levels of Indebtedness 3. Lack of Return on Investments 4. Limited Market Share 5. Delays in Product Pipeline
	Opportunities: 1. Innovative Technology 2. Growing Population 3. Global Presence 4. Delivering Value 5. Strategic Relationships	Threats: 1. Decreasing Stakeholder Confidence 2. Global Operations Risks 3. Environmental Regulations 4. Fluctuations in Commodity Prices 5. Competitive Market

Figure 6: Internal Financial Ratio Analysis: Current vs. Past Period Performance

Current vs. Past Period Performance							
Profitability	2015	2014	2013	2012	2011	2015 v. 2014	2015 v. 2011
ROA %	10.54%	12.85%	12.14%	10.18%	8.52%	(2.31)%	2.02%
ROE %	33.13%	26.82%	20.35%	17.45%	14.85%	6.31%	18.28%
EBITDA Margin %	28.03%	29.42%	27.75%	27.58%	26.01%	(1.39)%	2.02%
ROI %	22.25%	26.89%	24.98%	22.69%	19.27%	(4.64)%	2.98%
Liquidity							
Quick Ratio	1.20	1.02	1.47	1.45	1.19	0.18	0.01
Current Ratio	2.05	1.89	2.32	2.29	1.86	0.16	0.19
Net Current Assets	24.85%	20.76%	27.78%	26.88%	20.56%	4.09%	4.29%
Efficiency							
Total Asset Turnover	0.68	0.74	0.73	0.67	0.63	(0.06)	0.05
Inventory Turnover	1.92	2.23	2.49	2.38	2.15	(0.31)	(0.23)
A/P Turnover	14.28	14.41	16.38	15.47	13.37	(0.13)	0.91
A/R Turnover	5.69	5.99	5.97	5.12	4.68	(0.30)	1.01

*all data reported is from the 2011, 2012, 2013, 2014 and 2015 fiscal years

**(Mergent Online, 2016)

Figure 7: External Financial Ratio Analysis: Competitor and Industry Comparison

Competitor and Industry Comparison					
Profitability	Monsanto	Industry Average	E.I. du Pont de Nemours Company	Syngenta AG	Agrium, Inc.
ROA %	10.54%	6.90%	4.29%	6.88%	5.90%
ROE %	33.13%	20.24%	16.75%	15.49%	15.58%
EBITDA Margin %	28.03%	19.53%	17.09%	13.10%	19.90%
(ROI) %	16.12%	13.46%	10.45%	14.26%	13.01%
Liquidity					
Quick Ratio	1.20	0.98	1.05	1.15	0.52
Current Ratio	2.05	1.77	1.71	1.98	1.36
Net Current Assets	24.85%	20.73%	17.98%	29.18%	10.92%
Efficiency					
Total Asset Turnover	0.86	0.75	0.55	0.69	0.88
Inventory Turnover	1.92	2.22	2.23	1.53	3.20
A/P Turnover	14.28	8.58	6.11	3.95	9.98
A/R Turnover	5.69	5.11	4.72	2.85	7.17

*all data reported is from the 2015 fiscal year

** (Mergent Online, 2016)