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HARRIS-LUX CONSULTING

19 August 2014

MEMORANDUM THRU Michael Kelly, Acting Chief Financial Officer

FOR Robert A. Bradway, Chairman and Chief Executive Officer

SUBJECT: The Power of Suppliers in the Biopharmaceutical Market

1. Harris-Lux Consulting is pleased to deliver the third of five papers analyzing Amgen's current position within the biopharmaceutical industry, using Michael Porter's five economic forces as a basis of analysis (Porter, 1979). In this memorandum, HL Consulting will analyze the impact that suppliers have on the biopharmaceutical industry.
2. Background. Supplier power is directly influenced by the number of suppliers of input products. Specialized inputs from limited manufacturers will have a greater impact on the negotiating power, in the manufacturers' favor, especially if there are high costs associated with switching input manufacturers. These switching costs can include contract negotiation costs, specialized equipment for testing inputs, and any costs associated with finding a supplier (Baye & Prince, 2014). In the biopharmaceutical field, Amgen deals with two distinct types of suppliers: 1) the suppliers of generic chemicals and 2) suppliers of more specialized inputs (Mehta, 2008).
3. Generic Chemical Suppliers. The suppliers of generic chemicals and raw materials have very little power in the biopharmaceutical market. The chemicals and most raw materials have long shelf lives, are readily available from multiple sources, and can be purchased largely based on price and delivery (Mullins, 2007). The costs of switching are low, as chemical manufacturing is tightly controlled by government regulations. The strength of chemical suppliers is weakened because the Environmental Protection Agency reports approximately 13,500 chemical plants are run in the United States alone (Chemical Manufacturing, 2011).
4. Specialized Inputs. As the need for more specialized inputs grows in the research and development of biologics, the supplier power increases to medium. These more specialized inputs are developed and maintained by only a handful of manufacturers, increasing the bargaining power. This also increases the costs of switching between products because there is an increased need to ensure substitutability of products (Mehta, 2008). The supplier of a specific input will have more power in contract negotiations and may lead to costly bargaining and the opportunity for "hold-up" (Baye & Prince, 2014).
5. Amgen's Current Status. Amgen currently acquires most raw materials and undifferentiated chemicals from unaffiliated third-party suppliers. These undifferentiated materials cause no concern based on the number of suppliers available with whom Amgen can contract.

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However, several raw materials, medical devices, and components that are used in Amgen's production lines are specifically cited in its drug applications with regulatory agencies. This means that Amgen must obtain these supplies from this single source, until another supplier can be vetted by the regulatory agency involved (Amgen, 2013).

6. Risks. Amgen also needs to concern itself with possible disruptions in the supply process. The possible disruptions that HL Consulting has identified are: 1) changes in regulatory guidance of chemicals and raw materials, 2) adverse developments affecting the supplier, 3) unexpected shortages or increased demand for inputs, 3) supplier ability to comply with quality standards, 4) input contamination, recalls, or increased restrictions of materials, 5) previously undetected imperfections in raw materials devices, or components, and 6) labor disputes or shortages affecting the suppliers ability to comply with Amgen's demand. All of these concerns should be addressed when choosing a supplier as any can cause disruptions in Amgen's ability to manufacture its own products and comply with demand (Amgen, 2013).
7. Conclusion. Amgen needs to consider use of strong bargaining techniques when dealing with raw material and chemical suppliers when these supplies can be obtained from multiple sources. Although, Amgen could consider spot exchanges with these manufacturers, it may be Amgen's best interest to use contracting to ensure both the supply will meet the demand of the company and a favorable, consistent price for a set amount of time. In regard to more specialized materials, Amgen needs to be aware of impacts to the companies it deals with to ensure a consistent supply of inputs. Also to ensure that Amgen can continue with production a strong inventory management system should be employed (Amgen, 2013).

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