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**CIS 410-50**

**Burlington Northern Case Study**

## Executive Summary

Burlington Northern (BN) is a railroad company that was formed March 2, 1970 and was the largest railroad in America. At the time, BN had a staggering 26,000 miles of network that far outweighed even the extraordinarily successful Penn Central Transportation Company. BN was the result of a merger by four different "Hill Lines": Chicago, Burlington & Quincy; Great Northern; Northern Pacific; and Spokane, Portland, and Seattle (*Burlington Northern Railroad*, n.d.). Burlington Northern faced several different challenges in 1990 that included increased competition from other railroads and the trucking industry, a weakening economy, and a decline in the demand for coal which was its most lucrative revenue streams. The overall problem that Burlington Northern faced was how to stay relevant, this was primarily whether they wanted to implement the Advanced Railroad Electronics System (ARES) which would cost an estimated \$350 million. This System came at a massive price tag, required extensive changes to the entirety of the rail system, and would be a huge risk to the company and its shareholders if the program did not yield positive results.

## Industry Competitive Analysis

### Organizational Mission

The Organizational Mission at the time of the Case Study was to improve their ability to deliver service. This meant that their first opportunity lied with their intent to increase volume at the expense of other alternative carriers. The second opportunity was their desire to raise prices, but they would be required to provide a radical change in the type of service they would provide, a service that would elicit feelings of wonder or amazement from their customers to justify the

increase in price. And finally, Burlington Northern's last mission was to improve the utilization of their assets and reduce capital investment required to enter and maintain an organization in the railroad industry in the 1990s. Aside from what was previously stated, the standard mission for any organization is ultimately to create more wealth for their shareholders, grow their physical area of operations, and increase their market share through revolutionary ideas and technology.

### **Generic Strategy**

The Generic Strategy of Burlington Northern is to operate in a Cost Leadership strategy. This involves acquiring and maintaining a competitive advantage over the competition by lowering and maintaining costs. Burlington Northern's ability to maintain cost leadership will allow them to target the middle class with the products that they transport. The middle class normally places a great degree of importance on the price of their goods, within reason of quality, and maintaining cost leadership is the leading way in which to maintain this critical component of their cost leadership strategy.

### **Organizational Structure**

The Organizational Structure of Burlington Northern is not explicitly stated other than the Burlington Northern Organizational Chart located on Page 5 as Exhibit 3. The chart shows the organizational breakdown the various positions within Burlington Northern and who, at the time, occupied those positions. This organizational structure is the "Traditional" structure in which simplicity is the most distinguishing aspect. This is a top-down approach where communication and any direction come from the top, the Chief Operating Officer (COO) or the Chief Executive Officer (CEO) and flows down through different division heads and lower-level managers. There are other organizational structure styles such as "functional," where there are horizontal lines of communication between the various departments but there was no evidence of this through the

text or the Burlington Northern Organizational Chart. Due to Burlington Northern's size and success, there would be a need for the "Functional" style of organization with employees requiring the ability to communicate with individuals they do not fall directly under; this would be the ideal organizational structure for a larger company due to the need to meet short timeframe deadlines (Corporate finance).

### **Porter's Five Forces Analysis**

Porter's five forces is based on perceptions that the strategy of an organization should encounter the threats and opportunities and threats in any kind of external setting. Porter has argued that the aim of any strategist is to handle, recognize, and understand any competitive setting by looking at competitors and contemplate broader perspectives that competes with the organization (*Tanwar*).

**Competitive Rivalry:** Competitive Rivalry for Burlington Northern is low. There was only one major competitor which was Union Pacific. Union Pacific had made significant improvements to their rail system with double rails which would provide much more carrying capacity and greater versatility to their rail system. There was a competitor in the form of freight trucking that was capable of delivery directly to doorsteps but there was an opportunity for these two industries to work in tandem.

**Threat of New Entrants:** Threat of New Entrants for Burlington Northern is considered low due to the sheer amount of investment needed to enter the industry. According to Dick Lewis, the Vice President of Freight Equipment, there was a substantial amount of capital to enter the industry. The industry itself also had poor ratios and was a repellent for new entrants. There were also monopolistic concerns at the time and any new entrant into the

industry would have had to compete with major established corporations that would seek to purchase the fledgling company.

**Threat of Substitutes:** Burlington Northern's Threat of Substitutes is high in the form of the freight trucking industry. Freight trucking had a distinct advantage over the locomotive industry in that they could be highly flexible in their deliveries. Freight Trucking could make deliveries directly to a location, use infrastructure that was funded by the public, and could change routes in the event of delays or closures of roads. This also allowed Freight Trucking to charge two to three times more for their services as compared to rail service. Union Pacific is another company that was the greatest competitor to Burlington Northern and would be a substitute for any customer that would desire to change their business operations.

**Bargaining Power of Suppliers:** Burlington Northern's bargaining power of suppliers is high. More information would be needed as the case study mentions little about suppliers and costs. It can be assumed that locomotives require incredibly special equipment pieces and services as well as fuel. Any changes in the prices of fuel or the parts required to maintain the locomotives, railways, freight cars, and other supportive equipment would be met with little choice of alternative suppliers. This would give suppliers of the parts and fuel a substantial amount of leverage to negotiate price as the entire Burlington Northern business model is dependent on the functionality of their locomotives and rail system.

**Bargaining Power of Customers:** Burlington Northern's bargaining power of customers is variable. This depends on the type of clientele of the freight that is being carried. Most of the freight carried by Burlington Northern is for low-cost items carried in mass amounts but with limited customers. This would give the customers a great deal of leverage to negotiate costs when there are so few other willing customers or need for the product.

## Stakeholders

Stakeholders are different than a shareholder in that they are a party that has interest in a company, but they can either affect or be affected by a company, business, or organization. This is broken down into five different individuals or groups: customers, employees, investors, suppliers, and the community.

**Burlington Northern Customers:** The customers of Burlington Northern will be impacted by anything that Burlington Northern performs simply since it is the goods that they wish to purchase. This means that normal daily life needs will be impacted by customers due to any decisions made by Burlington Northern. Shipments arriving on time, changes in cost, changes in efficiency, and many other decisions made by Burlington Northern will impact the customers directly.

**Burlington Northern Employees:** The employees of Burlington Northern are stakeholders in every decision made within the organization. Any decision made by Burlington Northern could impact the employees' wages, benefits, promotions, new job openings, loss of jobs, new training for innovative technology, increased educations and training, and many other aspects that potentially affect every employee.

**Burlington Northern Investors:** Investors in Burlington Northern are also considered stakeholders as they affect and are affected by all decisions of the company. Any increase or decrease to the stock price of Burlington Northern will directly affect the investment of the investors. There are also decisions that the investors will be involved in due to their shares in the company.

**Burlington Northern Suppliers:** Suppliers are affected because they supply materials, equipment, and any service that is required by the company or project. Decisions within the company have many different impacts on suppliers.

**Community:** The local community as well as the greater community where Burlington Northern operates, has a stake in the company. Sites where the trains pass, land where the trains perform maintenance, citizens in the areas of the company all have an indirect impact on their lives due to employment and other factors.

## Alternatives

**First Alternative: Do nothing:** This would be the safest option for Burlington Northern to take as it would allow the company to maintain their projected levels of income and stock price with little to no immediate risk. This comes with an exceptional amount of long-term risk though as we have seen with other companies that refuse to innovate and match their competitors desires and efforts to develop modern technologies and processes to gain greater market share.

**Second Alternative: Implement the ARES System in partial increments:** The incremental implementation of the ARES System would allow for the greatest number of improvements relative to cost and would be the first foray into an automated rail system. The numerous benefits of the ARES system consisted of a full suite of safety benefits such as. There was the ability to track trains via Global Positioning Satellites (GPS) and dead reckoning on locomotives; the ARES system would allow for a slew of general improvements to operations such as reduced cycle time, reduced expenditures on fuel,

equipment, labor, and trackside equipment (Smith & Resor). This would also designate Burlington Northern as a leading innovator in the industry.

**Third Alternative: Implement the ATCS System from the AAR:** The Advanced Train Control System (ATCS) was being developed by the Association of American Railroads (AAR) and was designed to control the trains but not the entire railroad operation. This would allow for the automated tracking of warrants, analysis, and reporting, detecting blind spots, speed enforcement, pacing for fuel economy, and monitoring and control of wayside systems (*Advanced Train Control System Evaluation* | FRA, n.d.). This would assist with a reduction of overall costs but would lack some of the safety benefits of the ARES system.

## Recommendation

**Implement the ARES System incrementally:** This would be the most practical solution as of the time of the Case Study. The ARES System was estimated to be an many of five years ahead of the :ATCS system in its development time and implementation. One of the greatest indicators of a company's continued success is staying relevant in their industry. The implementation of the ARES system before the ATCS would allow for all the benefits of an automated rail system that would provide on-board signaling, train control, greatly improve safety for all participate, pinpoint trains down to roughly 100 feet, and would give Burlington Northern a significant competitive advantage over their competition with a working automated system that would be implemented five years before the most competitive model. GPS would allow for the ability to track the trains even when they aren't in range of the transponders, ATCS being the version that would need transponders for the communication. The ATCS also lacks some of the key safety features of the ARES system And finally, doing nothing may allow for Burlington Northern to



pay down its debt and obligations but they could easily fall out of the competitive market through the lack of innovation. Doing nothing would allow them to consolidate their business resources but they would become stale as a company and could become obsolete if they do not maintain technological improvements.

## Works Cited Page

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