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**Burlington Northern: The ARES Decision**

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**Mission**

The mission of Burlington Northern focuses on the effective and efficient distribution of goods and services to consumers. Burlington Northern strives to deliver in a timely manner while operating at the best cost.

### **Background**

Burlington Northern is a developing logistics company that is comprised of numerous railways across the country. The company started in 1970 and has grown considerably since basing headquarters in several cities throughout the country. The headquarters based in Fort Worth Texas manages financial and corporate matters, Overland Park, Kansas manages operations, and St. Paul Minnesota manages technological ordeals such as application development and computer information systems. Assets consist of over 800 trains and interconnected train systems, Burlington Northern's primary products cover a wide variety which consists of coal, agricultural products, industrial products, intermodals, forest products, food, and automotive that are distributed throughout the country. The company markets to many different kinds of consumers based on its produces.

### **Problem**

Burlington Northern has debated the possibility of implementing ARES (Advanced Railroad Electronics System). Although it would be innovative for the company, it is a tedious process to reengineer the entire system. According to Hammer and Stanton, "The decision to reengineer is not a dispassionate one, based on cool analysis of indisputable numbers. Business realities are complex, replete with ambiguity, uncertainty, and confusion." (Hammer and Stanton 38). ARES is an automated railroad system that is expected to significantly impact operations for railway system, by making it more efficient and facilitate utilization. Considerations for the project

initially took place in 1990, but did not move past that point. After observing current results from operations, the need has been more prevalent to the senior executives. Evaluation of the system shown that there are many advantages and disadvantages to implementing an automated system. Certain issues with implementing a system of that caliber involve a high cost and the question if the company is technologically capable of developing and implementing a system. Advantages that derive from the system is a more efficient way of managing the railway system and reduces the need for many workers. Before considering and evaluating certain solutions for the company, the company will be analyzed further. With an environment that is leaning towards technology, companies must be able to adapt. According to Morgan, “management must be concerned, above all else, with achieving alignments and good fits.” (Morgan 44).

### **Company Strategy**

Burlington Northern faces competition from other logistics companies such as truck transportation services as well as other railroad systems. The best strategy of Burlington Northern is to focus on a cost leadership strategy, and strive to provide efficient services at the lowest, but possible cost. However, it is prudent to avoid trading quality with low cost in consideration of the importance of the assets. The company's equipment such as the railways and trains are major assets that require constant maintenance. Ensuring that operations are being performed efficiently will allow Burlington Northern to perform services at a lower cost than other companies.

### **Porter Five Forces**

1. **Bargaining Power – Buyer:** Buyers for Burlington Northern can also be classified as customers who solicit services and goods from the company. Products that are available

to buyers through Burlington Northern are coal, agricultural products, industrial products, intermodals, forest products, food, and automotives. Due to the immense number of logistics companies through trucks and trains, buyers have a large pool of services to choose from. Buyer behavior can be unpredictable to identify the exact needs and wants. Ultimately, the buyer's decision will be based off of preference.

2. **Bargaining Power – Supplier:** Burlington Northern has a wide variety of necessary supplies that involve steel for track components, raw materials to make finished goods, and fuel. Depending on the demand for these materials, it can affect the bargaining power of the suppliers.
3. **Threats of New Entry:** With the increasing number of entrants in the market, it can affect business of the company. However, Burlington Northern has an advantage to the fact that it is an established company with a commanding stature in the industry. This industry has a high start-up, considering all the equipment that is needed as well as running and expanding the business.
4. **Competitive Rivalry:** Although Burlington Northern is deemed a reputable railway company, there are many other companies that provide the same level or even better services than them. Union Pacific (UP) is a leading railway company in distributing coal throughout the country. Not only does Burlington Northern has to confront the competition with other railway companies, the rising presence of truck companies are also impacting business. Truck companies are able to transport goods at a lower cost and offer their service in a more convenient manner.
5. **Threat of Substitutes:** As it was mentioned earlier, truck services pose a threat to Burlington Northern as a possible alternate. These services are able to perform the same

business functions but at a lower cost. They are also more convenient as they deliver directly door-to-door. In order to alleviate the pending threat of these substitutes, Burlington Northern can implement truck services as well to compete with other truck services. However, that would be another expense and responsibility for the company.

### **Stakeholders**

1. **Customers:** The company is able to survive and prosper due to customers requesting and paying for goods and services. For these reason, it is prudent to be able to attract and retain customers so that the company can continually bring in revenue. The important thing about retaining customers is that “it requires as complete an understanding of the needs of te customer as possible and the determination to stay in the relationship regardless of its ups and downs. (Kalakota and Robinson 177). Certain drawbacks of the current railway system involve delays of the trains and even unexpected breakdowns of the trains. These occurrences can cause frustration for customers causing them to choose different alternatives that can provide better services.
2. **ARES Development Team:** In order to implement the automated system, you will need to integrate with the current system. The goal of the new system is to be able to conduct normal business operations efficiently but be simple enough for end users that do not have a strong technical background. Responsibilities for the team include development, testing, and integration of the finished product. Since this is an expensive project, the team needs to ensure that it can deliver a “perfect” product and that it can be done in a timely manner. This will affect the whole company on a large scale if the project is pushed forward.

3. **Burlington Northern Employees:** The project will ultimately affect Burlington Northern employees since they will be using the system on a daily basis. If the system gets implemented, then the employees will have to take time in order to learn how to use the new system. If the system is developed properly and does what it was intended to do, then operations can be performed much easier and allow easier management of the railways. However, if the system has bugs or errors, it can be detrimental to business operations.
4. **Shareholders:** This group is an important part of the company as they buy shares of the company. In turn, this brings in money for the company, and the more shares that are bought, the market price increases as it grows in demand. Shareholders are concerned about the welfare of the company since it means more value to their shares. If the project succeeds and benefits the company, it will benefit shareholders. However, if the system fails and lessens productivity, then shareholders will suffer.

### **Alternatives**

1. Maintain the Current System
2. Implement ARES (Advanced Railroad Electronics System)
3. Implement an alternative automated railway system

### **Impact of Alternatives**

1. **Maintain the current system:** The advantage to Burlington Northern maintaining the current system, allows the company to save the money they would have spent for the new system. That money can be allocated towards regular maintenance for trains and other equipment, and purchase of inventory. Since employees are still comfortable using the

current system, there will be no need to educate employees about it. However, the system is not as adequate, as it is not able to accurately check the trains speed and location which makes it difficult to know if it is on schedule.

2. **Implement ARES (Advanced Railway Electronic System):** The advantage to Burlington Northern implementing ARES is that it will facilitate operations in becoming more efficient. ARES is an innovative and useful tool for employees to manage the trains by observing train conditions, speed, location, and time of arrival. This is beneficial to the company because it helps the company meet the needs and consumers. Depending on the success of the system, it can attract more customers which will boost revenue. This can also reduce the number of workers needed, which can reduce labor costs. Overall, the system helps make the company more productive. In *The Goal*, productivity was defined as “bringing a company closer to its goal. Every action brings a company closer to its goal is productive.” (Goldratt 31) The benefits that the system provides align with the mission of the company. However, implementing the system can be very costly. One of the potential issues with the system is that it may not be able generate enough revenue to cover the cost of the system. Another issue is that the company might not possess the technology capable of running a system of that caliber. In addition, employees will need to learn how to use these systems which can take a considerable amount of time, depending on the employee. Maintaining the system is another possible issue that you will need, either having to train someone to work or hire a team specifically meant for managing the system. Overall, this would just be another cost for the company.
3. **Implement an alternate system:** Burlington Northern can implement an alternate system. With the alternate system, the company can base it on a smaller scale and get it

cheaper. For example, ATCS (Advanced Train Control System) was being implemented by members of the Association of American Railroads (AAR). However, it may not have all the benefits as a large-scale system such as ARES.

### **Proposed Solution**

Based on the given alternatives, implementing the ARES system would be the most beneficial to Burlington Northern. The system will improve upon the company's operations, making it more efficient. With the system, it will be able to track the physical condition of the trains, notifying employees of any needed maintenance. In addition, it can track the speed and location of the train to estimate the time of arrival. This allows employees to plan for delays, so that they can avoid customer frustration. This will also reduce the need for employees which reduces the cost for labor. All these advantages fall within cost leadership which was discussed earlier in the general strategy. Although it is a costly system, the success of the system will ensure the return of investment.



## Works Cited

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