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**Burlington / Northern, Case 1**

CIS 410-50

**Executive Summary**

Burlington Northern Railroad has a massive rail system and owned regions including minerals, timber, oil and gas. They possess main offices in three different cities, Fort Worth, Texas; Overland Park, Kansas; and St. Paul, Minnesota. Their predominant sources of profits come from coal, agricultural commodities, industrial products, intermodal, forest products, food and consumer products and automotive products. Burlington Northern is debating whether or not to implement the ARES, Advanced Railroad Electronics System. This system would definitely increase productivity and efficiency but also comes with a huge price tag.

**Problem Description**

There are an assortment of problems in this case review, fluctuating from inefficiencies of the services done by the MOW, maintenance-of-way, crews to the holding company called Burlington Resources Inc., which is racking up some serious debt to be possessed by the Burlington Northern organization. Whereas each of these complications is of concern to the organization itself, Burlington Northern must make a decision based on its future but also regarding its current situational environment. Advanced Railroad Electronics System (ARES), an automated railroad control system that will allow Burlington Northern to amalgamate control, communications and information by using GPS - Global Positioning System - satellites to pinpoint any train location within one hundred feet. This system is approximated to cost around three hundred and fifty million dollars. The leading drawback Burlington Northern faces now is executives having distress and incongruity of judgment on if the Advanced Railroad Electronics System will help the organization significantly in the long run or not.

“Five simple principles: One, Shift all responsibility for the organization of work from the worker to the manager. Manager should do all the thinking relating to the planning and design of work, leaving the workers with the task of implementation. Two, use scientific methods to determine the most efficient way of doing work. Design the workers task accordingly, specifying the precise way in which the work is to be done. Three, select the best person to perform the job thus designed. Four, train the worker to do the work efficiently. Five, monitor worker performance to ensure that appropriate work procedures are followed and that appropriate results are achieved.” (Morgan, 23)

**Major Stakeholders**

Shareholders of Burlington Northern Company or Burlington Resources, INC: anyone who owns stock or is on the board of trustees. These are going to be the key people that any decision made will financially effect.

Employees: anyone working for Burlington Northern or helping keep the trains running. This could include engineers, conductors, or mechanics. While these people are partially involved financially, the organization’s decision will directly and majorly affect how their employees work day to day.

Customers: anyone, business or person, which uses Burlington Northern to ship products. These are the least affected people but also have to be taken into consideration based on their monetary value to the organization.

**Industry Competitive Analysis**

Porter’s Five Forces:

Competitive Rivalry: the competitive rivalry in the railroad trade is minimal. Burlington Northern’s major challender is Union Pacific. Union Pacific has already constructed expenditures to enhance their track infrastructure with new technology and improvements to fuel effectiveness.

Threat of New Entrants: the threat of new entrants into the railroad trade is almost improbable because of the high barriers to entry. These blockades can range from finances to sponsor the company to the diverse land grants it takes to construct railroad tracks and utilize natural resources. For an organization to get all of these things and still have enough money to operate would be a very rare occurrence. Therefore Burlington Northern doesn’t have to worry too much about new competitors entering the railroad game. Maintenance financial spending provides remarkably to financial expenditures, substantial investing in new tracks in the current manufacturing scenario is not feasible. Railcar costs, employee training, and right-to-operate tracks are considerable entry barriers for new companies.

Threat of Substitutes: The threat of substitutes in the railroad trade is considerably substantial. Burlington Northern transports colossal amounts of minerals, agricultural goods, industrial products, lumber, food, automotive, and other goods. The materials and consumables that Burlington Northern transports are that they are unconcerned with time and need to go a long distance. They can be transported and shipped across railroads without having to worry about expiring in transit. Semi-trucking organizations have progressively taken over the shipping of merchandise because they can distribute their products faster and are more flexible. Trains stand to gain on long-distance hauling when fuel prices are inflated. Trains are practically four times as fuel-effective than trucks. Consequently, the threat of substitution is predominantly influenced by fuel prices.

Bargaining Power of Suppliers: The bargaining power of Burlington Northern’s suppliers is barely an impact on the company. Their suppliers and people that supply them with train cars and materials. General Electric Company is one of world’s substantial locomotive suppliers. Most railroad company’s employees are protected by labor contracts. Nevertheless, the availability of vocational labor is steady. Altogether, the decline in suppliers’ power is middling.

Bargaining Power of Customers: The bargaining power of customers in the railroad trade is moderately high. Burlington Northern’s customers do have a lot of control over the company and could easily move to the competitor, Union Pacific, if their prices and services are not aggressively cutthroat with Union Pacific. For consumers, the converting cost is low to use a different railroad company. However, some customers in outlying regions might not have as many choices. Ultimately, if Burlington Northern fails to invest in Advanced Railroad Electronics System, they could fall short in pricing, competitive advantage, overall customer satisfaction, and eventually lose customers to Union Pacific.

**Alternative Courses of Action and Impact on Stakeholders**

Option # 1: Do Nothing - Don’t Implement Advanced Railroad Electronics System. Burlington Northern will recommence operating conventionally and will save the three hundred and fifty million dollar fulfillment costs. The railroad will continue to maneuver on a traditional schedule with traditional operations.

The employees will recommence working in their traditional positions. The maintenance-of-way crews will r recommence working per usual, but there will constantly be a safety concern. The dispatchers will still have to support their individual areas.

The shareholders will not be as affected by not administering Advanced Railroad Electronics System. The cost per share of stock may diminish but they will be maneuvering with around their extra income.

The customer will still receive their shipments, but might be delayed or late. Eventually they will probably switch to a more efficient and faster mode of transportation of materials.

Option # 2: Implementing Advanced Railroad Electronics System. The senior executives decide to administer Advanced Railroad Electronics System. Burlington Northern will incur the three hundred and fifty million dollar enactment cost. This price comes includes an eighty million dollar cost for the control center, eighty million dollar cost for Data Link - wayside communications - and a two hundred million dollar cost for On-board equipment. The potential benefit of Advanced Railroad Electronics System is whopping but highly unpredictable. With Advanced Railroad Electronics System, no one-person or single piece of equipment can cause a happenstance - two must falter synchronously. Contrarily, right now a numerous amount of factors can cause an accident. If Advanced Railroad Electronics System is implemented, safety would be the greatest advantage and definitely increase.

The employees would incontrovertibly benefit from implementing Advanced Railroad Electronics System. Dispatchers would also be affected, their jobs made easier by being able to calculate a train’s position from only ten to fifteen feet away instead of the previous one hundred feet. There is also a disadvantage possible for their jobs with the new computerized systems. The maintenance-of-way crews have a safe job because of ameliorate traffic planning.

The shareholders would be affected due to shares per stock potentially going up. Their expenses could be as high as four hundred million dollars to nine hundred million dollars, with an expected present value of over six hundred million dollars. This increase in income is considered against a cost of approximately two hundred and twenty million dollars, present value.

The customers would benefit because Burlington Northern could guarantee arrival times, give live updates, and probably increase their business due to efficiency increase company-wide.

**Normative Recommended Course of Action**

“As soon as people sense that you were about to suggest something new, even if it might be something better, they put themselves against it they tend to focus all of their energy into coming up with reasons why the new idea won’t work … Whether it’s for better or not, improvement is still change. And change, for whatever reason, means uncertainty. We venture from one is safe and known into what is unknown, I move that most people are afraid to make … Much of what we do with managers is actually directed against change? Management strive for control, predictability, and certainly in the midst of all the variables. And it isn’t just the managers who are against change, it’s everybody.” (Goldratt 269)

My normative recommended course of action would be to do nothing. This choice seems like the safest and most efficient for all stakeholders involved. Honestly, according to Burlington Northern’s income statement, this organization is barely breaking even. Shutting down completely while they are ahead would also be a good course of action. If they were to implement the Advanced Railroad Electronics System in iterations, they might be able to have a competitive advantage during their time and increase profits. However, with the current financials, I’m not sure they would even be able to afford the Advanced Railroad Electronics System software in the first place.

**Sources**

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