

12.0 FREIGHT TRANSPORTATION PLANNING CHALLENGES

12.1 Just in Time (JIT)

Just-in-time is a production strategy that strives to improve a business' return on investment. As stated in the Western Minnesota Regional Freight Study, Just-in-time inventory is a supply chain system designed to maximize delivery and inventory efficiency. In many cases, a JIT system allow producers to deliver products and services directly to the customers based on their specified demands, typically bypassing an intermediate distributor; thus, trucks on the highways and the containers on the rails have become moving warehouses in the new economy.

As the U.S. economy becomes more service-oriented and U.S. producer's focus on more high-value or value-added products that are expensive to stock as inventory, companies are adopting modern supply chain management techniques with the following attributes.

- Demand Pull Supply Chains: The movement of product triggered by the consumer as opposed to the producer (supply-push).
- Customer-Focused Logistics: Tailoring logistics networks to respond to the unique needs and profitability requirements of each specific group of customers.
- Transportation Effectiveness: Leveraging the ability of integrated transportation to improve customer service and total supply chain cost and performance.

*Improvements in Transportation impacts Industry Productivity
Transportation improvements allow for an efficient management inventory
JIT provides a high level of customer service with dramatic reduction in inventory levels and cost*

Source: US DOT/FHWA report Freight Transportation Improvements and Economy

Macro-level transportation access and infrastructure are considered in the JIT strategies and include the following:

- Proximity to an airport, rail, port, or Interstate
- Proximity to suppliers (could be mandated rather than a consideration)
- Time Zone preference
- Relationship to other company facilities
- Relationship to competitor facilities; and
- Market access and center of sales activity

12.2 Transportation in Site Selection – How does Transportation fit in?

Increased Importance of Community Infrastructure and Quality of Life Factors

Communities must have an economy that is rich and diverse enough to provide long-term careers for both spouses. The community must have an equilibrium between income and housing cost, access to selective colleges for the knowledge workers' children, and a welcomeness to diversity.

Growing Importance of Passenger Aviation Services for Corporate Executives and Business Visitors

Passenger aviation service is a crucial consideration for locating business facilities with executive staff or with international business connections. With the advance of the global economy, this requirement will most likely become more critical in the future.

Need for Transit and Commuter Options for Workers

The increased focus on worker retention has led to greater consideration of the amount of time and options available for employee commuting. In several interviews noted the desired commuting time was less than 30 minutes and, preferably, less than 20 minutes. Where transportation has been improved, the effective labor shed increases. This helps employers access a large pool of prospective applicants.

New Business Attraction and Economic Development Strategies in Rural Areas

Creating multi-jurisdictional arrangements to create a greater-sized entity for marketing and for facilitating projects. Working together, clusters of areas may be able to more aggressively market their region. Creating a world-class logistical center is all about passing through jurisdiction quickly and efficiently as possible.

Brownfield and Property Redevelopment

Urban areas are densely developed and increasingly facing a scarcity of new land, or “green fields” for development. However, urban areas also are likely to contain fallow properties that were formerly used for primarily industrial purposes. These sites may be underutilized or may be environmentally contaminated from their previous uses.