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## **Abstract**

Nowadays, 1<sup>st</sup> Thai-Lao Friendship bridge and Nongkhai-Tanalang railway are utilized as logistics systems between Thai and Lao People's Democratic Republic. However, the logistics system through 1<sup>st</sup> Thai-Lao Friendship bridge is used for trading purpose. Even though the Nongkhai-Tanalang railway is now the system for only passengers, there would be potential logistics system for trading. This paper analyses and compares two logistics systems between Thai and Lao People's Democratic Republic passing through 1<sup>st</sup> Thai-Lao Friendship bridge and Nongkhai-Tanalang railway. This research considers only four products. Lumber and electrical wire are the main import products in 2007 - 2008 at Nongkhai Custom-House, whereas gasoline and private car are the main export products in 2007 - 2008 at Nongkhai Custom-House. Analyses and comparisons of the logistics distance, time, and costs between using road and rail modes are studied in this research.

It is found that by using road and rail modes, the distances are about the same. Using rail mode takes longer than using road mode, whereas using rail mode is more economical than using road mode. The logistics cost reduction when using rail mode are 27, 26, 11, and 30 percent for lumber, electrical wire, gasoline, and private car, respectively. Based on the result, using road mode would take less time with higher cost. In contrary, using rail mode would take more time with less cost. Trade-off between time and costs would be considered. Using road mode would be more expensive especially when fuel price is increased with quicker customer responsiveness. However, based on the trend of increasing fuel price, the logistics cost of using road mode may become amplified. Then, the rail mode would be a wise logistics system for trading purpose between Thailand and Lao People's Democratic Republic in the future.