

RE-VISITING ASSUMPTIONS USED IN CALCULATING NATIONAL LOGISTICS COST: A THAI CASE STUDY

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ABSTRACT

Purpose: National logistics cost is a key performance indicator for Thailand's Logistics Development Plan. Since 2000, the National Economic and Social Development Council (NESDC) has calculated the ratio of national logistics expenditures over gross domestic product (GDP) based on secondary data with a series of assumptions used in the calculation of national logistics cost. The purpose of this manuscript is to revisit these initial assumptions and update them for more precise logistics cost/GDP figures.

Design/methodology/approach: 6,000 Thai businesses nationwide were surveyed. Obtained data was used to estimate logistics-related costs. Short interviews with 30 large companies were further employed in order to obtain a proportion of logistics administration cost as a ratio of the overall administration cost. The obtained numbers were compared with the assumptions used by the NESDC. A comparative analysis was done and the assumptions used by NESDC were replaced to re-calculate national logistics cost.

Findings: The comparative results shows that transportation cost estimations by the NESDC versus that from the sample was not significantly different. However, the data related to warehousing cost was higher than that of NESDC as it includes in-house warehousing cost in the calculation. Inventory holding cost and logistics administration cost were lower than those of imputed by NESDC.

Research limitations/implications (if applicable): The respondents understanding of logistics administration cost is limited and often considered as general administration cost. Logistics administration cost were therefore estimated based on data provided by large firms' interviews.

Practical implications (if applicable): This manuscript provide steps for updating assumptions used in the estimation of Thailand's national logistics cost/GDP. These updated assumptions reflect better the country's current logistics context. It is important to have a more precise national logistics cost/GDP for monitoring the success of the national logistics development plan.

Originality/value: The manuscript proposes steps for verifying and revising the assumptions used in estimating national logistics cost.

Keywords: logistics cost, GDP, macro-logistics, national accounts