

Digital trade facilitation and bilateral trade in selected Asian countries

ABSTRACT

Purpose: Digital technology is gaining attention among many scholars as a way to facilitate trade. This study aims to investigate three important digital dimensions (DD), namely, digital infrastructure, digital usage and digital security on trade using selected Asian countries and 20 selected trade partners. Digital infrastructure focussed on the availability and accessibility of digital infrastructure in exporting and importing countries. The second dimension, digital usage, highlights the importance of household usage of mobile phones, broadband data and the internet. Finally, the third dimension focusses on digital security as many online transactions occur across the globe. **Design/methodology/approach:** The study uses the gravity model to investigate the impact of DD as tools to facilitate trade in selected Asian countries with selected trading partners between 2003 and 2017. The Hausman test is used to determine whether to use the random effect model or fixed effect model. However, for robustness, the Hausman and Taylor estimation is used to allow the time-invariant model to be included and at the same time to remove correlations between the error terms. **Findings:** The result of this study confirmed that having digital infrastructure is not sufficient for trade facilitation, but it must be supported with an intensity of use by businesses and consumers and be accompanied by strong internet security for trade. The study also revealed that a narrowing digital divide in terms internet users and security will be a benefit to both trade partners in a transaction through better and efficient trade facilitation. **Originality/value:** The study contributes to the literature in three ways. First, the classification of DD is used to identify which dimensions need to be addressed for policymakers. Most studies focussed on the first two dimensions without including security dimensions. Second, the authors estimate digital trade facilitation variables for both exporters and importers to ensure unbiased results between two trade partners. Finally, this study introduces new variables in the analysis of the digital user gap and the digital security gap as indicators for the digital divide.

Keyword: Gravity model; Asian; Digital dimension; Digital trade facilitation