ABSTRACT

Digital service trade has become an important engine of world economic growth, and its competitive landscape is also evolving. We construct domestic value-added networks of digital service exports (DVAN-DSEs) from 1995 to 2018 based on the world input-output table, and explores their structural evolution and determinants using Temporal Exponential Random Graph Model. We find that (a) the DVAN-DSEs present the features of agglomeration, heterogeneity, reciprocity and unevenness. (b) The United States and European countries are the core in DVAN-DSEs. (c) Preference attachment, structural embeddedness, delayed reciprocity, stability, variability, Matthew effect in GDP, population and Internet coverage, geographical proximity, cultural similarities, and regional trade agreements play important roles in the evolution of DVAN-DSEs. (d) Structural embeddedness and geographic proximity only facilitate new relationship construction, while other factors influence both relationship establishment and maintenance. Countries should build network facilities, expand trading partners and promote trade agreement negotiations to facilitate the development of digital service trade.