

Research on the Evolution of International Intellectual Property Trade Network and China's Competitiveness

ABSTRACT

China is already a big country in international patent application, but there is still a big gap from becoming an innovation power and a power in international intellectual property trade. Examining the patterns and evolution of international intellectual property trade helps to grasp the scale, internal characteristics, and development trends within the global intellectual property market, enabling a precise assessment of China's standing and competitiveness in the international intellectual property arena. This paper examines intellectual property royalty data from 66 key countries and regions. By analyzing the global intellectual property rights trade volume changes and China's trade growth rates from 2000 to 2019 and using Social Network Analysis, it calculates indicators such as density, centralization, degree centrality, and weighted degree centrality to assess the evolution of the international intellectual property trade network and China's changing status within it. The findings indicate that intellectual property trade between countries has intensified, leading to more frequent trade interactions with a "coreperiphery" structure and small-world features. Over time, the centralization pattern in international intellectual property trade initially strengthened but later declined amid turmoil. Developed countries, notably the United States, saw a diminishing core position, while emerging nations experienced rapid growth. China exhibits strong competitiveness, showing a gradual improvement in its position. However, it faces a growing trade deficit and needs to enhance its international influence and position within the global value chain.