

## 摘要

从 2000 年中非合作论坛第一届部长级会议在北京举行以来，已有 53 个非洲国家加入论坛，中非合作论坛机制有效地推动了中国与非洲各国在多个领域的合作，促进了双方经济的高质量发展。特别是“一带一路”倡议在非洲的实施以及中国提出对非“十大合作计划”“八大行动”和“九项工程”，极大地加快了非洲国家的发展速度，为中非贸易合作提供了新的动力。中国作为世界上最大的制造业国家，制造业规模连续 13 年居世界首位，占全球比重已超 30%。习总书记提出高质量发展以后，加快发展高技术制造业已经提上日程，而高技术制造业产品在中国与非洲的国际贸易中扮演着至关重要的角色。尽管中国与非洲的经贸合作取得了显著成就，但在双方的贸易往来中仍面临一些不便利因素。这些因素可能影响中国高技术制造业产品在非洲市场的表现和竞争力。因此，本文利用 2011—2019 年非洲国家的面板数据，分析非洲国家贸易便利化与中国高技术制造业产品出口之间的关系。通过这种实证研究，旨在为非洲国家贸易便利化水平的提升及中国高技术制造业产品出口贸易的发展提供研究依据和政策建议。研究中选择非洲区域内的 27 个国家作为研究样本，以贸易自由化理论、关税同盟理论和交易成本理论为支撑，采用实证分析法、文献综述法和比较分析法探讨非洲国家贸易便利化对中国高技术制造业产品出口的影响。

本文研究主要由三个部分构成。第一部分，本文首先从贸易便利化内涵和测度、中国高技术制造业和贸易便利化对中国高技术制造业产品出口影响这三个方面进行文献综述。然后分析了贸易便利化对我国高技术制造业产品出口影响的理论基础和机制路线。其次，利用设定的贸易便利化测算体系测度非洲国家的贸易便利化水平。在测算体系中，制度环境指标权重最大，其次为基础设施和海关管理，最后是电子商务。非洲不同国家在贸易便利化水平上存在较大的差异。参照已有学者对贸易便利化水平等级的划分，可知纳米比亚、南非、埃及为比较便利化的国家，肯尼亚为一般便利化的国家，大部分国家仍处于不便利化的阶段。

第二部分主要研究中国高技术制造业产品出口非洲的现状，选取 2011—2019 年 UN COMTRADE 中中国对非洲国家的出口数据，分析在此期间中国对非洲国家高技术制造业出口规模变化。分地区和产业来看，中国对非洲高技术制造业出口最多为南非地区，其次是西非以及北非地区，再次是东非和中非地区。中国对非洲高技术制造业产品出口主要为电子及通信设备制造业，其次是医疗仪器设备及仪器仪表制造业、计算机及办公设备制造业，再次是医药制造业以及航空、航天器及设备制造业。

第三部分是实证分析，使用拓展的贸易引力模型来分析非洲国家贸易便利化对中国高技术制造业产品出口的影响。实证结果显示，非洲国家贸易便利化显著促进了中国高技术制造业的出口。具体而言，非洲国家贸易便利化水平每提高 1%，中国对其高技术

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制造业产品的出口量相应增加约 0.92%。此外，进口国的国内生产总值、人口数量以及中国的国内生产总值等因素也在一定程度上推动了中国高技术制造业产品的出口。

在此基础上，本文基于政府层面和企业层面分别提出建议。政府层面：推进援助落后非洲国家完善基础设施建设；加快扩宽与非洲国家的友好贸易协定范围进程；优化高技术制造业产品的出口环境。企业层面：密切关注非洲高技术制造业产品市场；加强研发投入；利用政府政策和贸易便利化措施。

**关键词：**非洲国家；高技术制造业；贸易便利化；拓展引力模型

## Abstract

Since the first Ministerial Conference of the Forum on China-Africa Cooperation (FOCAC) was held in Beijing in 2000, 53 African Countries have joined the forum. The FOCAC mechanism has effectively promoted cooperation between China and African Countries in various fields, facilitating high-quality economic development for both parties. Particularly, the implementation of the "Belt and Road" initiative in Africa and China's introduction of the "Ten Major Cooperation Plans," "Eight Major Actions," and "Nine Projects" have significantly accelerated the development of African Countries, providing new momentum for China-Africa trade cooperation. In this context, as the world's largest manufacturing country, with the manufacturing industry leading the world for 13 consecutive years and accounting for more than 30% of the global share, China has prioritized the acceleration of high-tech manufacturing industry development following President Xi Jinping's call for high-quality development. High-tech manufacturing products play a crucial role in international trade between China and African Countries. Despite significant achievements in economic and trade cooperation between China and Africa, there are still some inconvenient factors in their trade interactions, which may affect the performance and competitiveness of Chinese high-tech manufacturing products in the African market. Therefore, this thesis utilizes panel data from African Countries from 2011 to 2019 to analyze the relationship between trade facilitation in African Countries and the export of Chinese high-tech manufacturing products. Through this empirical study, the thesis aims to provide research evidence and policy recommendations for enhancing the level of trade facilitation in African Countries and the development of export trade of Chinese high-tech manufacturing products. The study selects 27 Countries within Africa as research samples and uses theories such as trade liberalization, customs union, and transaction cost theories, employing empirical analysis, literature review, and comparative analysis methods to explore the impact of trade facilitation in African Countries on the export of Chinese high-tech manufacturing products.

This thesis is structured into three main parts. The first part begins with a literature review on the connotations and measurements of trade facilitation, Chinese high-tech manufacturing, and the impact of trade facilitation on the export of Chinese high-tech manufacturing products. It then analyzes the theoretical foundations and mechanistic pathways of how trade facilitation affects the export of high-tech manufacturing products from China, followed by measuring the level of trade facilitation in African Countries using a designated measurement system. In this system, institutional environment indicators carry the

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most weight, followed by infrastructure and customs management, and lastly electronic commerce. There are significant differences in the level of trade facilitation among different African Countries. According to the classification of trade facilitation levels by existing scholars, Namibia, South Africa, and Egypt are considered Countries with relatively high levels of facilitation, Kenya is moderately facilitated, and most Countries are still at a less facilitated stage.

The second part primarily investigates the current status of China's high-tech manufacturing product exports to Africa, selecting export data from China to African Countries from 2011 to 2019 from UN COMTRADE to analyze changes in the scale of exports during this period. Regionally and industrially, the largest portion of China's high-tech manufacturing exports goes to the Southern African region, followed by West and North Africa, then East and Central Africa. The primary exports are electronic and communication equipment manufacturing, followed by medical instruments and apparatus, computer and office equipment manufacturing, and then pharmaceutical manufacturing, as well as aerospace products and equipment.

The third part consists of an empirical analysis using an expanded trade gravity model to examine the impact of trade facilitation in African Countries on the export of Chinese high-tech manufacturing products. The empirical results demonstrate that trade facilitation significantly promotes the export of China's high-tech manufacturing industry. Specifically, for every 1% improvement in the level of trade facilitation in African Countries, the export volume of China's high-tech manufacturing products to these Countries increases by approximately 0.92%. Additionally, the GDP, population size of the importing Countries, and China's GDP also contribute to the export of Chinese high-tech manufacturing products to some extent.

On this basis, this thesis puts forward suggestions based on the government level and enterprise level respectively. At the government level: promote assistance to backward African Countries to improve infrastructure construction; accelerate the process of expanding the scope of friendly trade agreements with African Countries; optimize the export environment for high-tech manufacturing products. At the enterprise level: pay close attention to the African high-tech manufacturing market; strengthen investment in research and development; and make use of government policies and trade facilitation measures.

**Key Words:**African Countries; High-tech manufacturing; Trade facilitation; Expanding the gravity model

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