Introduction

The purpose of this study is to theoretically elucidate the impact of spatial and cultural factors on the trade of national brand goods, the differences in industrial agglomeration between large and small countries, the analysis of "home-market effect" and "reverse home-market effect," the potential for sustainable brand industry formation in developing countries and rural areas, and the influence of trade liberalization and the enhancement of high-quality brand goods based on traditional culture on industrial location.

In recent years, the role of national brand goods and services in international trade has garnered attention. National brand goods refer to products and services rooted in the cultural background of a country, such as agricultural products, traditional crafts, films, animations, and tourism services. These goods possess not only economic value but also cultural and social value, functioning as a means of international cultural exchange beyond mere trade. A series of studies by Takita et al. (Takita (2021), Takita, Wang, and Zhang (2021)) have worked to theoretically clarify the mechanisms of sustainable development in small developing countries, particularly rural and mountainous areas, through the production of national brand goods via mutual understanding of culture and international trade. Conventional spatial economic models (Krugman (1980), Helpman et al. (2008)) have not sufficiently explained fluctuations in trade volumes due to cultural relationships, the disappearance of trade, or the phenomenon of small countries becoming international brand production centers. Research on cultural goods, such as Tanaka (2016), Schulze (1999), Ferreira and Waldfogel (2013), and Takara (2018), exists, and Takita (2022) has proposed a multilateral, multi-type national brand goods exchange system based on international trade theory. Building on these, this study constructs a spatial economic model of international trade in national brand goods and services and analyzes the potential for regional brand industry clusters in developing countries and rural areas. While traditional theory generally suggests industrial agglomeration in large countries, national brand goods are greatly influenced by cultural factors in consumer preferences, making agglomeration in small countries possible.

Methodology

This study constructs an international trade model that describes consumer and firm behavior in both large and small countries, formalizing the equilibrium of factor markets and national brand goods markets.

Consumers maximize utility under income constraints by consuming national brand goods produced domestically and abroad. Consumer preferences include domestic and foreign brand orientations (patriotism and foreign admiration), influenced by cultural understanding and international relations. Each household supplies labor services to domestic and foreign firms and earns wages. Firms set prices to maximize profits under monopolistic competition, with all workers having the same productivity, and produce national brand goods using only labor. To maintain quality, each country uses different increasing-returns-to-scale technologies based on tradition and culture.

Trade between large and small countries considers not only physical distance but also cultural relationships, historical and religious ties, and psychological effects of national brand goods. Using a two-country, single-industry general equilibrium model incorporating iceberg transportation and communication costs, the study analyzes how trade liberalization affects agglomeration in large countries and brand industry formation in small countries through reverse home-market effects. Furthermore, the study explores the potential for sustainable economic development through traditional cultural goods from a policy perspective.

Results

Under monopolistic competition, intra-industry trade occurs between large and small countries, with home-market effects and industrial agglomeration confirmed in large countries. However, this study shows that international cultural ties can strengthen or mitigate home-market effects and agglomeration.

When strong admiration exists for foreign cultures and national brand goods, reverse home-market effects emerge, leading to complete agglomeration in small countries. This phenomenon is supported by historical examples, such as the Andean and Mayan civilizations, which achieved economic development through cultural value in harsh environments. Additionally, even with low productivity, high brand recognition can stimulate demand and compensate for productivity limitations.

Discussion

This study analyzes a spatial economic model of international trade in national brand goods and services, from branded agricultural products to globally recognized films and animations. The results show that reducing transaction costs and enhancing quality and brand value influence the industrial location of regional brand goods and services in both large and small countries.

The study clarifies mechanisms through which global brand formation in rural areas of developed countries and developing countries contributes to advanced regional industry formation via home-market and reverse home-market effects.

As interest in traditional culture-based brand products grows, home-market effects in large countries weaken, while reverse home-market effects strengthen, promoting industrial agglomeration in small countries.

The model clearly demonstrates the relationship between psychological and cultural factors that generate brand power and traditional production methods that maintain quality. Contrary to the conventional view that low productivity leads to elimination, the study shows that strong brand power can overcome productivity constraints.

Conclusion

This study constructs a spatial economic model analyzing the international trade of high-quality national brand goods from developing countries, focusing on the potential for regional brand industry clusters based on cultural heritage and terroir.

The findings show that cultural preferences, traditional production technologies, and brand value significantly influence trade structures and industrial locations, enabling small countries and rural areas to achieve sustainable development through national branding.

By demonstrating the potential for reverse home-market effects and industrial agglomeration, the study contributes to theoretical advancements in spatial economics and practical insights for regional development. Future research should pursue empirical analysis and explore strategies to enhance the international competitiveness of national brand goods rooted in traditional culture.