

# The Competitiveness of Transport Corridors as One of the Tools for the Growth of Economic Development of Countries

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## Abstract

## Original Research Article

The competitiveness of transport corridors plays a pivotal role in fostering economic development by facilitating trade, reducing transportation costs, and enhancing connectivity. This paper examines the importance of transport corridors in boosting the economic growth of countries, with a particular focus on Burundi. The study explores how improving the efficiency and competitiveness of transport corridors can serve as a catalyst for economic growth by enhancing trade routes, improving logistics systems, and integrating Burundi into regional and global markets. By analyzing the existing infrastructure and the potential for regional cooperation, the paper identifies key strategies for optimizing transport corridors and assesses their potential impact on sectors such as agriculture, manufacturing, and services. The case study of Burundi highlights the critical role of transport corridor competitiveness in reducing barriers to trade, promoting regional integration, and fostering sustainable economic growth for landlocked and developing countries in Africa.

**Keywords:** Transport corridor, Competitiveness, Tool.

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## INTRODUCTION

Transport corridors play a crucial role in fostering economic growth, especially for landlocked countries like Burundi. These corridors facilitate the efficient movement of goods and people, enhancing trade connectivity, reducing transportation costs, and improving access to international markets. A significant body of literature emphasizes the importance of transport infrastructure in shaping a nation's economic trajectory. Scholars argue that well-developed transport corridors contribute to increased productivity, regional integration, and foreign direct investment (FDI), which, in turn, stimulate economic development. In the context of Burundi, several studies have explored the strategic value of transport corridors linking the country to key regional ports, such as Dar es Salaam in Tanzania, Mombasa in Kenya, and others within the East African Community (EAC). These corridors are seen as essential to overcoming the challenges posed by the country's landlocked status. Existing research highlights that efficient transport networks can reduce trade barriers, enhance market accessibility for Burundian producers, and improve competitiveness in the global market. However, challenges persist, including inadequate infrastructure, high logistical

costs, and political instability, which hinder the full potential of transport corridors in Burundi. Addressing these barriers is critical for lev the relationship between transport infrastructure and economic growth is a well-established concept in economic theory, particularly for developing and landlocked countries like Burundi. Transport infrastructure plays a pivotal role in reducing transaction costs, enhancing market access, and facilitating regional integrational of which are crucial for fostering economic growth. In this discussion, we explore how transport infrastructure influences economic growth, with specific reference to the case of Burundi, a landlocked country in East Africa. Enraging transport corridors as engines for economic growth. This literature review seeks to explore these themes, focusing on how transport corridors contribute to economic development in Burundi and examining the competitive dynamics that influence their effectiveness. In economic theory, transport infrastructure is often seen as a form of capital that, when effectively developed, can enhance productivity and economic output. The neoclassical growth model (Solow, 1956) highlights that investment in physical capital, such as roads, railways, and ports, can contribute to increased productivity, especially in developing economies. For Burundi, a country that is heavily reliant on regional

transport networks to access international markets, improving transport infrastructure could significantly reduce trade costs and enhance productivity in key sectors such as agriculture, manufacturing, and services. The transport corridors connecting Burundi to its neighbors such as the Central and Northern Corridors are critical in enabling efficient movement of goods and services, thus improving the overall productivity of the economy (Diminic & Sloboda, 2013). By reducing inefficiencies in logistics, transport infrastructure allows firms to access larger markets at lower costs, increasing their ability to compete regionally and globally. Transport cost theory (Samuelson, 1952) posits that lower transport costs encourage trade by reducing the cost of moving goods between markets. This is especially relevant for landlocked countries like Burundi, where high transport costs are a significant barrier to economic development. The World Bank (2014) suggests that transport costs in sub-Saharan Africa are disproportionately high, often due to poor infrastructure, border inefficiencies, and long transit times. For Burundi, improving its transport corridors would lead to a reduction in the effective cost of trade, making local products more competitive in both regional and global markets. The trade cost framework suggests that as transport costs decrease, trade volume increases, thereby stimulating economic growth by broadening market access for goods produced in Burundi (Gilbert & Pomfret, 2017). By improving road, rail, and port infrastructure, Burundi could decrease transport costs, making it more attractive for international trade and foreign investment, and driving economic growth. The concept of economies of scale in transport refers to the cost-saving advantages that arise when the scale of transportation increases, typically as a result of improved infrastructure. In practice, a well-integrated multimodal transport system (involving the combination of road, rail, and ports) can significantly reduce the average cost of transporting goods, especially when volumes increase. According to Ruppenthal (1965), large-scale infrastructure investments, such as expanding rail lines or upgrading port facilities, can enable countries to handle higher volumes of goods at a lower cost per unit, thus fostering greater trade and reducing barriers to market entry. For Burundi, that has limited access to major ports, the development of multimodal transport systems-linking rail and road networks to efficient ports in neighboring countries-can lower logistics costs. This would allow Burundian businesses to benefit from economies of scale, facilitating cheaper exports and encouraging industrial growth (UNCTAD, 2019). Transport infrastructure is also a key driver of regional economic integration. The development of cross-border transport corridors has the potential to enhance economic cooperation among neighboring countries, increasing the flow of goods, services, and investments. Endogenous growth theory (Romer, 1990) posits that investment in infrastructure, including transport, can have positive spillover effects on neighboring

economies by fostering a more integrated and efficient regional market. Burundi's inclusion in the East African Community (EAC) means that improving its transport corridors can have regional benefits, not only for Burundi but also for its neighbors such as Rwanda, Uganda, and Tanzania. Efficient transport corridors facilitate trade and reduce regional disparities by connecting rural areas to urban centers and markets, thus promoting balanced regional development. The East African Community (EAC) has recognized this, with several initiatives aimed at improving transport connectivity, such as the Northern Corridor Transport Improvement Project, which directly benefits Burundi by improving access to ports and trade routes (EAC, 2020). Enhanced regional connectivity thus enables Burundi to participate more effectively in intra-regional trade, boosting its economic growth prospects.

## METHODS

The competitiveness of transport corridors as one of the tools for the growth of economic development of countries: case of Burundi ", the study took place in Burundi: Northern, Central and Southern corridors. The study focused on a population of 1,116 individuals from various institutions, with a sample size of 88, determined using Alain Bouchard's sampling formula. Data was collected through questionnaires, interviews, and document analysis, targeting executives, employees, and international transporters. Our research questions were sent to the Academic Research Supervisor for comment. Redundancies and misunderstandings have been corrected based on comments received.

## RESULTS

Description of Respondents: On 88 respondents, 13 were from the Ministry of Trade, Transport, Industry and Tourism; 12 from the Ministry in charge of EAC Affairs; 7 from the World Bank in Bujumbura; 8 from Burundi port and Maritime Authority; 8 from Northern corridor secretariat; 8 from Central corridor secretariat; 7 from transport resilience project; 5 from Burundi freight forwarders associations; 5 from Burundi International transporters association and 15 from Burundian association of long-distance drivers. Respondents' Gender: Size out of 88 total respondents, 31 of the respondents were females whereas 57 respondents were males representing 35% and 65% respectively. Respondents' Educational Level: the respondents were composed of 3 doctor level, 16 master level, 32 license level, 30 from secondary school and 7 of primary level. Respondents' Experience: 10 respondents have experience which is under 10 years, 46 respondents have experience which is between 10-20 years; 23 respondents have experience which is between 20-30 years and 9 respondents have experience which beyond 30 years. Respondents' Titles: out of 88 respondents, 5 respondents are General Directors, 2 Executive Secretaries, 13 Heads of departments, 31 Consultants, 19 Advisors to the Ministers' cabinets, 1

World Bank Project Coordinator, 3 Heads of Transport Associations and 14 Longs distance Drivers. The following answers were given to the questions by the respondents. To the specific question number one which was stated as “**What are the key factors (e.g., infrastructure deficits, high transportation costs, and inefficiencies) affecting the competitiveness of transport corridors in Burundi?**”, below are responses provided by different respondents: Eighty one respondents out of eighty eight which represent (92%) recognize that Burundi's road network is primarily composed of national and rural roads, many of which are not in good condition due to limited funding. However, nowadays Burundi's road and port infrastructure is undergoing significant improvements with support from development partners like AfDB, World Bank, EU and others. The support from AfDB Bank to upgrade roads connecting Burundi and Tanzania, enhancing the Central Corridor's capacity. And in addition, the Kabingo–Kasulu–Manyovu–Mugina Road, the construction of Kwala Dry port and Uvinza–Musongati–Gitega–Kindu projects aim to improve cross-border trade and regional integration. Thus, if the infrastructure is not good, connectivity and efficiency will be poor. Concerning the different challenges, all respondents (88) commonly identified the following main challenges: **Inadequate Infrastructure:** Despite ongoing upgrades, many roads remain in poor condition, particularly in rural areas, leading to higher maintenance costs for vehicles and longer travel times. Burundi does not have an operational railway network, limiting its ability to transport bulk goods efficiently and increasing dependency on road transport. The Port of Bujumbura is the country's main gateway for lake trade, but it is constrained by limited handling capacity. **High Transport Costs:** As a landlocked country, Burundi depends on neighboring countries' transport infrastructure to access seaports, resulting in high transit fees and additional logistical costs. High fuel prices exacerbate transport costs, reducing competitiveness in regional and global markets. **Border and Customs Delays:** Lengthy customs clearance processes at border crossings increase transit times and costs. Border posts often lack modern facilities and systems, which hinders the smooth flow of goods and services.

**Security Concerns:** Security challenges in the Great Lakes region can disrupt transport routes and increase risks for transport operators, leading to higher insurance and operational costs.

**Limited Financial Resources:** Many infrastructure projects face delays due to insufficient funding or reliance on donor support, making it difficult to implement large-scale upgrades or maintenance programs. Concerning to the improvement of the efficiency of Burundi transport corridors, eighty three (83) respondents out of eighty eight (88) which represent 94% answered as follows: **To Reduce**

**Transport Costs:** Upgrade and maintain key infrastructure such as roads, ports, and railways. Streamline customs and border procedures to minimize delays. Establish competitive freight tariffs through public-private dialogue. Promote the use of multimodal transport systems to optimize costs. By focusing on improving road and waterway infrastructure, strengthening regional connectivity, enhancing governance, and promoting market liberalization, Burundi can significantly reduce transport costs and improve the efficiency of its transport corridors. These improvements would not only reduce the cost of doing business but also stimulate economic growth, increase competitiveness, and create opportunities for trade and investment, particularly in agriculture, mining, and manufacturing sectors.

**To Enhance Trade Flows:** Implement one-stop border posts (OSBPs) to reduce clearance times. Harmonize transport regulations and standards with regional partners. Invest in digital systems for real-time cargo tracking and documentation. Increase capacity at ports and logistics hubs. Improving the efficiency of Burundi's transport corridors requires a multifaceted approach involving infrastructure upgrades, technological advancements, regulatory reforms, and enhanced regional cooperation. By addressing these challenges, Burundi can create a more competitive environment for trade, reduce logistics costs, increase economic integration with neighboring countries, and foster overall economic growth. These improvements will not only benefit Burundi but also enhance its standing as a key player in regional trade in East Africa.

**To Support Economic Growth:** Prioritize transport projects that connect key economic zones. Foster partnerships with development finance institutions for funding. Strengthen institutional frameworks to ensure sustainable project management. Develop special economic zones (SEZs) near transport corridors. Harmonizing laws across the corridors. Initiate multimodal transport.

**Prioritize transport projects that connect international corridors:**

By focusing on improving infrastructure, connectivity, and sustainability, Burundi can significantly enhance the efficiency of its transport corridors. These improvements will lead to lower transport costs, faster movement of goods and people, and greater integration with regional and global markets, which will, in turn, stimulate economic growth and increase the country's competitiveness within East Africa. On the issue of the efficiency of transport corridors in Burundi has a significant impact on the cost of doing business, eighty seven (87) out of eighty eight representing 99 % of the respondents give the following answers:

**Reduction in Transport Costs:**

Efficient transport corridors reduce the costs associated with the movement of goods. For businesses,

transport costs are a significant portion of the overall operating expenses. If roads, railways, and ports are well-maintained and well-connected, the cost of transporting goods, both locally and internationally, is minimized. This is crucial for businesses in Burundi that rely on exporting goods to international markets.

**Impact:** Lower transportation costs mean that businesses can save money, which can be reinvested into other areas such as marketing, product development, or improving workforce skills. **Faster Delivery and Improved Lead Times:**

Efficient transport systems shorten the time it takes to move goods from one location to another. This reduction in lead time is particularly important for businesses that deal with perishable goods or need to meet tight delivery deadlines. Faster transit times also mean businesses can respond more quickly to market demand changes, making them more competitive.

**Impact:** Faster delivery leads to better customer satisfaction and reduced inventory costs, as businesses don't need to keep large stocks of goods waiting for distribution. **Boost to Export and Market Access:** Burundi is a landlocked country, meaning that efficient transport corridors are vital for access to international markets. When transport corridors are efficient, businesses can reach global markets more easily, increasing export opportunities. Exporters benefit from reduced delays and costs, which in turn enhances their profitability and market competitiveness.

**Impact:** Improved market access allows local businesses to grow and expand beyond domestic borders, potentially increasing their revenue and business scale. **Supply Chain Reliability:** Efficient transport corridors improve the reliability of supply chains by reducing the risk of delays and damages during transit. When goods are transported smoothly and without delays, businesses can maintain steady production flows, meet deadlines, and ensure that customers receive their orders on time.

**Impact:** Reliable transport systems reduce supply chain disruptions, helping businesses minimize the need for buffer stocks and reducing the financial impact of delays. **Reduced Risk of Loss and Damage:** Poorly maintained roads and inefficient corridors increase the risk of accidents, delays, and damage to goods. By improving the efficiency and maintenance of transport corridors, the risk of loss and damage can be minimized, leading to cost savings for businesses.

**Impact:** Reduced loss and damage lead to fewer claims and insurance premiums, making it more cost-effective for businesses to transport goods. To sum up, the efficiency of transport corridors in Burundi directly influences the cost of doing business by lowering transportation costs, improving market access, reducing lead times, enhancing supply chain reliability,

and minimizing risks associated with transportation. These benefits collectively help businesses increase their profitability, competitiveness, and growth potential, particularly in an export-driven economy like Burundi's. To the question of how Burundi stakeholders collaborate to ensure the competitiveness and sustainability of the country's transport corridors, the following answers were given by seventy seven (77) respondents out of eighty eight, which represent 87.5%. This collaboration is crucial for enhancing Burundi's regional and international trade connectivity and promoting sustainable development. From all of the above, I observe that my research questions have been confirmed to a very high degree varying between 79 and 100%. Then "the competitiveness of transport corridors is one of the tools for the growth of economic development of countries: case of Burundi». Efficient transport corridors are vital for reducing transport costs, enhancing delivery speeds, and improving supply chain reliability in Burundi, a landlocked country. Poor infrastructure, high transport costs, lengthy customs procedures, and security concerns hinder Burundi's competitiveness, increasing operational costs and reducing access to global markets. Improving transport infrastructure and systems, such as roads, railways, and ports, can lower costs, boost economic growth, and support trade, particularly for agricultural exports. Private sector contributions, technological advancements, and regional integration through bodies like the EAC, COMESA and SADC can further enhance efficiency and competitiveness. Short-term goals include upgrading infrastructure and modernizing ports, while long-term strategies focus on multimodal systems and sustainable infrastructure to foster economic growth, attract investment, and improve Burundi's global competitiveness.

## CONCLUSION

The responses provided by key institutions involved in the transport sector in Burundi highlight several core themes and issues that affect the country's transport infrastructure, its integration into regional corridors, and its broader economic development. The efficiency of transport corridors in Burundi directly impacts the cost of doing business by reducing transportation costs, increasing market access, and enhancing supply chain reliability, which are crucial for the growth and sustainability of SMEs and exporters. Based on the answers from the World Bank; the Ministry of Trade, Transport, Industry and Tourism; the Burundi Port and Maritime Authority; the Central Corridor Executive Secretariat; the Northern Corridor Executive Secretariat; the Ministry in charge of EAC Affairs; the Burundi Transport Resilient Project; the Burundi Long Distance Drivers Association; the Burundi International Transport Association, we summarize the findings in the following categories: Key Challenges in Transport Infrastructure and Logistics Poor Infrastructure, Inefficient Border and Customs Procedures, Limited Port Capacity and Services, Access

to Modern Logistics Solutions. Initiatives for Infrastructure Improvement as captured in the following sentences Upgrading Road Networks, Port Modernization, Rail Infrastructure Development, Digitalization and Technological Solutions. All Respondents highlight the importance of digitalization and technological solutions to improve transparency, reduce bottlenecks, and enhance the overall competitiveness of the corridors.

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## Contributions from Authors

All the authors contributed to the conduct of this work. They also state that they have read and approved the final version of the manuscript.

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