Harnessing the African Continental Free Trade Area for Technology Transfer

By:

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Introduction

The African Continental Free Trade Area (AfCFTA) is poised to play an important role in facilitating technology transfer in Africa. African negotiators are currently finalising the annexes to its Protocol on Intellectual Property Rights (IPR Protocol), with a view ultimately to operationalize the Protocol. This development coincides with the 30 year anniversary since the establishment of the World Trade Organization (WTO), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), an instrument that introduced constraints on the ability of African countries to advance their technological development. Today's industrialised countries did not face these constraints. It is therefore opportune that we reflect on how 30 years of TRIPS implementation intersects with the goals of the AfCFTA and its vision for Africa's development.

The IPR Protocol aims to promote science, industrialisation, services, investment, digital trade, technology and technology transfer, and regional value chains. This aligns closely with the African Union's Agenda 2063, Africa’s collective blueprint for transforming the continent into a global powerhouse of the future.

This analysis argues that the IPR Protocol offers a viable pathway for African countries to foster technology transfer, innovation and technological advancement by creating a unified market, encouraging innovation and competition, enhancing industrialization and infrastructure development, and strengthening human capital development.

The AfCFTA and Agenda 2063

The AfCFTA is the world's largest free trade area in terms of the number of participating countries. It encompasses 54 of the 55 African Union countries, creating a single market of over 1.3 billion people with a combined GDP of approximately $3.4 trillion. At its core, the AfCFTA is an expression of the AU Agenda 2063, a 50-year vision, whose ambition is to achieve Africa’s socio-economic transformation.

Crucially, Agenda 2063 underlines the pivotal role of technology transfer, adaptation and support for innovation as a driver for achieving the continent’s economic ambitions. It is worth briefly examining the role of technology transfer in economic development.

The Role of Technology Transfer

Technology transfer is the process by which technology, skills, knowledge, and manufacturing methods are transferred from one organization or country to another, diffused through movement of people, goods, and capital. It is a collaborative process that allows scientific findings and intellectual property to move from creators to public and private users. This process is essential for developing countries as it can significantly enhance their technological capabilities, boost industrialization, and promote economic development.

In the context of the goals set out by the AfCFTA and Agenda 2063, technology transfer could be a catalyst for achieving development outcomes on the African

continent. Technology transfer can also flow from innovations, which are a key driver of long-term economic development. Innovation and technology transfer are vital for cementing Africa's place in the global economy. Institutional quality is one of the key success factors for innovation and technology transfer.

Pan Africanist thinkers like Ali Mazrui have emphasized that sound institutions underlie state stability, security and development. His analysis often highlighted how institutions influence cultural and political identity, governance, and stability in African countries. At the more specific level such institutions may entail sound legal and regulatory frameworks, public finance for research and development, market-based institutions, and an ecosystem of public and private organizations that interact to produce knowledge and support its commercialization.

Among the key institutions in the field of innovation are technology incubators. As reflected in a recent study by the United Nations Economic Commission for Africa (UNECA), these institutions play a crucial role in fostering the growth of micro, small, and medium-sized enterprises (MSMEs) in Africa by providing essential resources and support that these enterprises often lack. These services are pivotal for the development of technology-intensive MSMEs, particularly in regions where access to such resources is limited. Incubators also foster connections with universities, research institutions, and industry networks, thereby enhancing the innovation capacity and sustainability of MSMEs. The idea of an ecosystem captures the interplays of diverse but overlapping institutions that are working to promote innovation and technology transfer/absorption.

As this paper contends, sound and inclusive institutions such as technology incubators and universities can facilitate innovation, helping to advance technology transfer. The more African countries collaborate, the more their scientists and public institutions work together, pool resources, and champion regional and continental institutions, the greater the possibilities for regional innovations to emerge and for knowledge to be diffused across borders.

This is where the AfCFTA's IPR Protocol can play a vital role. The Protocol places an obligation on Members to cooperate, inter alia, to enhance the use of open-source licensing, research cooperation, and other collaborative models to

stimulate innovation, incentivize university-industry linkages, and facilitate the transfer and diffusion of technology.

Reflecting on 30 Years of the TRIPS Agreement

The TRIPS Agreement is a crucial piece of the puzzle when it comes to innovation and technology transfer. The Agreement sets minimum standards for the protection and enforcement of intellectual property rights. One of its objectives is the transfer and dissemination of technology to the mutual advantage of producers and users of technological knowledge, and in a manner conducive to social and economic welfare.

It's essential to recognize that when today’s industrialized countries were in their development stages, they benefited from a more lenient intellectual property regime. Practices such as reverse engineering and weaker IP protections enabled these countries to acquire and adapt foreign technologies for their own industrial growth.

For instance, Switzerland did not institute a national patent law until 1888. When the law was introduced, it was very narrow in scope and did not provide protection for chemical inventions. It is argued that this allowed domestic chemical industries to develop imitative capacity. Today, Switzerland boasts some of the most accomplished chemical and pharmaceutical industries in the world. Similarly, countries such as Germany, France and Japan only introduced pharmaceutical product patent protection in the 1960s.

These mechanisms proved crucial for the technological advancement and industrialization of the countries discussed. Today, due to the stringent IP regulations imposed by the TRIPS Agreement, developing countries, including those in Africa, find their policy space considerably restricted. This limitation makes it challenging to use similar methods for technology acquisition and adaptation. These challenges have been highlighted in the WTO by the Africa Group.

While Africa continues to benefit from several preferential market access mechanisms, its global trade footprint remains marginal at less than 3% of global trade. Even though Africa accounted for 18% of the world population in 2021, its share in the world manufacturing output was around 2%.

African countries have not been able to climb the innovation value chain under the TRIPS regime. With the exception of Mauritius in 45th place, no African country is in the top 50 of the WIPO Global Innovation Index. Many African countries have struggled to move from simple foreign technology acquisition through post TRIPS channels into adaptation and subsequent endogenous technology development.

While the international intellectual property system demands respect and adherence to global intellectual property standards, the constraints it presents did not need to be contended with by today's industrialised countries.

As postulated by Professor Tandika Mkandawire in his seminal lecture entitled ' Running while others walk' "*Catching up has been driven by the emancipatory aspirations of developing countries themselves and their understanding of the Western advantage that has sustained its dominance*".

To attain technological advancement and self-reliance, it is vital that Africa explores alternative strategies to foster technology transfer. What role can the AfCFTA play in this noble pursuit?

Facilitating Technology Transfer Through AfCFTA

Technology transfer can play an important role in technological advancement in Africa. In this author's view, there are four key contributions that the AfCFTA will make. First, it will help create a unified market. Establishment of a single African market is a fundamental step towards fostering technology transfer. By reducing barriers to intra-African trade and harmonizing regulations, the AfCFTA makes it easier for businesses to operate across borders.

This integrated market will allow Africa to harness economies of scale and encourage foreign direct investment (FDI). This can facilitate the entry of multinational corporations, which often bring advanced technologies and innovative practices to host countries.

As these companies set up operations in various African countries, they inevitably share their technological expertise and management skills with local partners and employees. This can be buttressed by active policy measures such as the AfCFTA Investment Protocol, which explicitly includes provisions for

promoting and facilitating renewable energy investment.

Second, the AfCFTA will encourage innovation and competition. A larger, integrated market under the AfCFTA stimulates competition among businesses, which drives innovation. Companies are motivated to adopt new technologies to gain a competitive edge. Moreover, local firms, exposed to international standards and practices, are more likely to innovate and improve their technological capabilities. This competitive environment is conducive to technology transfer as firms seek to remain viable and thrive in the expanded market.

Third, the AfCFTA could enhance industrialization and infrastructure development by promoting the development of regional value chains. These value chains require the establishment of manufacturing hubs and infrastructure development, both of which are critical for technology transfer. As industries expand and infrastructure improves, there is a greater demand for advanced technologies. Governments and private sector players will need to invest in technology to build and maintain this infrastructure, creating opportunities for technology transfer from more industrialized countries.

Fourth, the AfCFTA will help strengthen human capital development. A larger, more integrated market requires a workforce with diverse and advanced skills. This increased demand will spur African countries to invest in education and vocational training, focusing on science, technology, engineering, and mathematics (STEM) by expanding on the average of 0.45% of GDP that African countries currently invest in research and development, which amount falls well below the global average of 1.7%.

Additionally, partnerships with foreign educational institutions and businesses can facilitate the transfer of knowledge and skills, ensuring that the African workforce is equipped to handle and innovate with new technologies.

Aligning with Agenda 2063

Agenda 2063 emphasizes the importance of science, technology, and innovation (STI) as critical drivers of economic development. The AfCFTA's role in technology transfer directly supports several of Agenda 2063's aspirations:

- **Aspiration 1 - A prosperous Africa:**

  By fostering technology transfer, the AfCFTA contributes to economic diversification and industrialization, key elements of a prosperous Africa. Advanced technologies enable the development of new industries and enhance the productivity of existing ones, leading to higher economic growth and improved living standards.

- **Aspiration 2 - An integrated continent:**

  The AfCFTA's promotion of intra-African trade and regional integration aligns with the goal of a united and integrated Africa. Technology transfer can play an important role in this integration by facilitating standardization of practices and enhancing connectivity across the continent.

- **Aspiration 6 - An Africa whose development is people-driven:**

  Technology transfer under the AfCFTA also supports people-driven development by creating opportunities for employment, entrepreneurship, and skills acquisition. As technologies are transferred and adopted, they open up new avenues for innovation and enterprise, empowering African citizens to take charge of their economic destinies.

Conclusion

The AfCFTA is not just a trade agreement; it is a transformative initiative with the potential to reshape Africa's economic landscape. By facilitating technology transfer, the AfCFTA can play a pivotal role in realizing the ambitious goals of Agenda 2063. It has the potential to drive industrialization, foster innovation, and build a more integrated and prosperous continent.

In commemorating 30 years of the TRIPS Agreement, African countries should reflect on how it has affected innovation and technology transfer on the continent. The vision of African luminaries such as Mazrui and Prof Mkandawire offers instructive insights.

To harness the full potential of the IPR Protocol as an instrument to achieve the objectives of the AfCFTA and Agenda 2063, governments, businesses, and civil society must collaborate to create an enabling environment for technology transfer. By doing so, we can pave the way for a future where Africa stands as a global leader in innovation and development.

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