

KEVIN TUTANI: Knowledge-based economy would give SA a leg up

A knowledge-based economy is a national system in which consumption and production patterns are guided by high intellectual standards.

In it, consumers are mindful of what and how they consume, while productive activities of the government, private sector, NGOs and other institutions are informed by sound intellectual methods. Some knowledge-based economies include South Korea, the US, Japan and the EU.

Since these economies are knowledge-based, they produce high-value goods and services, while the consumption patterns of their citizens and businesses are guided by environmentally friendly, healthful and intelligent choices. Consumers from these knowledge-based economies are generally more concerned about how their food, clothes, energy consumption (electricity and car fuel), housing and recreational activities affect the environment, economy and social values. This has driven firms in those developed countries to adopt the highest standards in production systems.

In a knowledge-based economy, industries are focused on manufacturing high-value goods and services, which earn them and their national economies greater revenue and GDP. Thus, these economies produce more useful innovations compared with developing and emerging economies such as SA.

Developing economies rely on primary, unprocessed goods for a significant share of their GDP and export revenues. Developing economies tend to be heavily focused on agriculture, minerals and in some cases basic manufacturing, while highly developed, knowledge-based countries go beyond that.

Germany imports raw minerals that it uses to develop machinery and vehicles that are consumed locally and exported. The GDP of developing countries such as SA and Mozambique depends on unprocessed, basic agricultural and mineral commodities. These developing countries are also known to be importers of high-value finished goods and services such as farming machinery, vehicles, clothing, software technologies for their industries and internet services such as Google, Facebook, WhatsApp and X.

Best practices

Though some developing countries have managed to establish knowledge-based industries that also manufacture high-value goods, they still import a larger amount of high-value finished products from knowledge-based economies.

Citizens in a knowledge economy also have high intellectual capabilities. Procedures in those economies are thus typically done using the most efficient and technological methods available. Whether at primary school, community meetings or national government policy level, procedures are carried out in line with best practices. This keeps such economies efficient and highly productive.

It is possible to make SA a knowledge-based economy if certain changes are introduced. They will need to be implemented through the co-operation of all important stakeholders, such as the government, private sector, NGOs, other institutions and citizens.

The country should commit to its goal of doubling the number of researchers with doctoral qualifications produced by local universities by 2030. The doctoral students

should be encouraged or mandated by law to focus on research or studies that address economic, social, health and engineering problems.

Their research should strictly focus on providing solutions to local problems so that innovations can be made that solve local challenges first. If their knowledge is easily transferable, an increasing number of citizens will be equipped to also address local problems. That would be a quicker and more effective way to get solutions to several local problems such as depleting water resources, poverty, a poor education system, HIV transmission and disease management.

In the Group of 20 rich and politically influential countries, South Korea has the highest number (8,000) of researchers per million citizens. It is trailed by Japan, the US, the UK and the EU, which have about 5,000 researchers per million citizens. Clearly, the same countries are popular for advances in innovation and the development of high-value products and services. SA has fewer than 500 researchers per million citizens.

Entrepreneurship

Researchers conduct first-hand studies and develop or improve concepts, theories, models or techniques. If they are given a conducive environment in terms of funding and space to research, their presence in an economy translates to new discoveries or new knowledge that can create progressive innovations.

The institutional environment should also be committed to the provision of incentives for innovative entrepreneurship such as government policies and funding to support the country's innovative potential. The free registration of intellectual property is a positive direction that can provide a supportive institutional environment. Government lawyers can be provided free if entrepreneurs wish to settle disputes over intellectual property. All of these encourage growth in innovative entrepreneurship, which also translates to growth in innovative creations.

It is time for SA to move from a resource-based economy to a knowledge-based economy. In a knowledge economy, the country will not subsist on selling unprocessed commodities at low prices but on selling value-added goods that earn greater revenue.

A transition to a knowledge-based economy also implies that the country will be better equipped to deal with pressing social, economic or scientific problems.

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