

## Vision 2030 on Steroids

*“Digital Innovation: the Vision 2030 Real Deal “*

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Zimbabwe’s vision to be a middle-income economy by 2030 is pragmatic and the call to action “Zimbabwe is open for business” is befitting. The key question is which economic models should be used to get there? This article argues that the two mainstay economy drivers namely, mining and agriculture may fall short to deliver vision 2030 in the current world on steroids being pumped by a technology and innovation-driven 4<sup>th</sup> Industrial revolution. A third disruptive growth driver is required to mitigate legacy problems and leapfrog development cycle steps.

Zimbabwe was Africa’s breadbasket in the 1990s when agriculture contributed 9%-15% of Gross Domestic Product, 20%-33% of export revenue and livelihoods to 70% of people. The 2000 land reform, which is the 2<sup>nd</sup> most important national milestone after 1980 independence disrupted the breadbasket status. However, agriculture is still Zimbabwe's economy backbone contributing 10 % to 2017 GDP. This is great because even if technology innovation now drives life, food security remains life for time immemorial. Mining also remains an economic pillar. Zimbabwe has the 2nd largest Platinum and chrome deposits and is the 5th largest lithium producer in the world. In 2017 mining revenue was US\$2,3Billion contributed 13% of GDP about 70% export revenue.

To achieve vision 2030, Zimbabwe has to leverage agriculture and mining and add a third indispensable one, namely digital innovation. To explain how these 3 economic pillars are the real deal for Zimbabwe, we first have to go back in history.

Africa requires an economic model that mitigates colonisation and slavery legacy

which resulted in missing development milestones. Africa missed the 1st Industrial revolution due to slavery, then the 2nd Industrial revolution happened during colonisation and 3rd Industrial revolution happened during liberation struggles and nationalism. However, Africa is now well positioned to take advantage of the 4th industrial revolution happening now and is technology and innovation driven. Colonisation wiped out cultures and knowledge systems that built the likes of Great Zimbabwe. It created national boundaries with economically and socially fragmented countries without critical mass. Colonisers stole wealth and built insurmountable competitive advantage. The Western world took more than 400years which included genocides, cold and real wars to develop democracy. Africa has a maximum 55years after independence, but there is pressure to replace pre-colonisation functional political systems with Western type democracy. Slavery ended 155years ago, but Europe and USA had built some existing economic foundations.

Zimbabwe therefore needs an economic model that leverages traditional leadership, culture and values while developing Western democracy. A model that leapfrogs the missed development cycles and historical imbalances requires a little more than agriculture and mining economic pillars alone. We propose a mining, agriculture and digital innovation economic model that uses natural resources to offer world class services thereby attracting global economies of scale as the best foot forward to vision 2030. This creates a future-proof and generationally inclusive shared vision around which democratic development can be achieved.

Contemporary social-economic transformation best practices position digital innovation as the most important driver of economic growth. Digital technologies are at the core of global poverty reduction strategies which can propel Africa to a middle-income status. Digital assets, information and

knowledge goods drive value in the 4<sup>th</sup> Industrial revolution economy. As such, for vision 2030 to be realised, Zimbabwe should be ready to transform, utilize and process digital sources of value. In any event, failure to bridge the digital divide will cause Zimbabwe to fall victim to global inequalities and text book type 3<sup>rd</sup> world vicious poverty cycles.

The largest digital social-economic impact is in financial services, education, health, retail, agriculture, and government. A digital economy relies on internet technology to address service delivery challenges, information asymmetries and market gaps in these sectors. In fact, the Internet's contribution to the economy as a fraction of total GDP is called iGDP. Senegal's iGDP is 3.3% and Kenya 2.9% which are comparable to France and Germany. South Africa and Nigeria, iGDPs are 1.4 percent and 0.8 percent, respectively although they Africa's largest economies. Africa's iGDP is 1%. This means there a big opportunity for Zimbabwe to use internet technologies for economic growth

Zimbabwe's is seized with reducing the unemployment rate. However, digital technology changed the definition of employee because consumers now sell to other consumers in the digital economy, interchanging producers and consumers roles. Amazon, eBay, crowd funding and Blockchain are typical digital market places. Currently 34% of USA workforce participates in the digital economy; this will rise to 43 percent by the year 2025. African platforms such as Multichoice for media, Upwork for outsourcing are growing rapidly. In Zimbabwe, mobile money subscribers, agents and merchants have blurred roles of consumers and producers. Digital peer-to-peer exchanges and shared economies reduce barriers to entry, and unit prices and maximize resources utilisation from national, regional and global users. The shared economies blur the lines between formal versus informal sectors, producers and consumers, and employers and employees. The Zimbabwean Industrial Policy, Trade Policy and SME Policy for vision 2030 should leverage digital innovation.

Zimbabwe should develop an Innovation Policy as an integral part of the vision 2030 National Development Plan. Africa takes a cautious approach to innovation driven growth because the initial dollar value impact on GDP is small. The policy-makers are therefore persuaded that big infrastructure projects such as transport, water, and electricity are a pre-requisite for the structural transformation required to unlock the value from impactful innovation. Unfortunately, this waterfall approach to development has been disrupted by the digital 4<sup>th</sup> Industrial revolution. Development components now happen in parallel and not in series. Zimbabwe should use innovation to modernize its infrastructure to make it innovation ready. In fact, innovation shortens the time for infrastructure changes to reach 2030.

rubiem Innovations analysis of the USA top-valued companies for the past 100 years shows that Zimbabwe's vision 2030 industrialisation policy should be centred on digital innovation. In 1917 the top 5 valued companies were US Steel US\$46 Billion, American Telephone Company US\$14.1Billion, Standard Oil of N.J US\$10Billion, Bethlehem Steel US\$7.1Billion, Armor & Com US\$5.8Billion. In 1967, 50 years later, the top 5 list changed to IBM US\$258, American Telephone and Telegraph company US\$200Billion, Eastman Kodak US\$177Billion, General Motors US\$171.2Billion and Standard Oil of N.J US\$106Billion. Finally in 2017, a 100 years later, the list top 5 completely changed to Apple US\$898Billion, Alphabet US\$719 Billion, Microsoft US\$644Billion, Amazon \$534Billion and Facebook US\$518Billion. The rubiem Innovations analysis shows that over time the most valued companies changed from being resource based to digital innovation. Zimbabwe can attract these high valued companies and FDI by adopting a similar model. Digital innovation companies are breathtakingly shorter time to drive GDP because they use shared global platforms and shared-economy models to scale up.

A rubiem Innovation analysis on the duration some industries took to reach 50 million users

proves that a digital innovation model can deliver results within vision 2030. For cars it took 62years, Electricity 46years, Television 22years, ATM 18years, computers 14years, mobile phones 12years, internet 7years Facebook 3years, twitter 2years and Pokeman Go 19days to reach 50million users. Zimbabwe's industrialisation policy should go beyond reviving industries like Railways, ZISCO, ZIMASCO, Bata, and agro and mining companies with business models that were disrupted already. Instead, Zimbabwe should identify specific industries that rapidly scale globally in partnership with other countries or global companies to share innovation, investment and R&D costs and risks.

Can an economic model which is not linked to a resource or agriculture really succeed? The World Trade Organisation 2016 report on the world top 10 most traded goods has in first place, Germany trading cars for US\$1,35Billion, second USA with Refined Petroleum valued at US\$825Billion, third Hong Kong with integrated circuits valued at US\$804Billion, fourth Germany with vehicle parts traded at US\$685Billion and fifth China with Computers traded at US\$614Billion. Switzerland was 7<sup>th</sup> with gold traded for US\$576Million. Although USA was highest with traded refined oil, it is not a world leading oil producer. Switzerland was highest with traded gold, it doesn't have significant gold mines. Zimbabwe is a landlocked country with a limited domestic market should use digital innovation to expand the agriculture and mining value chain services to a global market and most importantly to transform the economic model into something completely different.

Several countries transformed their national economic models involving technology and innovation, agriculture and resources. Israel successfully implemented a technology and innovation driven economy. The small domestic market and adverse geo-politics forced Israel to focus on innovative products competitive on the international market. South Africa has a diversified economy and in

2014 the ICT contribution to GDP was 2.7% which was larger than agriculture. South Africa's overall ICT market is expected to reach \$21.4 billion by the end of 2018, and \$23.4 billion by 2021. From 1930, Brazil transformed its economic structure from agriculture to manufacturing to services. India's share of the world's income dropped from 27 percent in 1700 to 3 percent in 1950. The country embarked on an unprecedented path of growth and development, with the peak of the GDP growth reaching 9.6 percent in 2006 leveraging ICT. The Asian tigers used ICT to transform their economies. Rwanda is one of the most successful cases of a landlocked small African country without natural resources that built a world class economy leveraging ICT.

The digital innovation economic model, depends on how advanced are Zimbabwe's R&D, and science and technology policy. R&D determines capacity to absorb or adapt technology and innovation to local context for rapid scaling up. In fact, Africa's struggles to leverage leapfrogging technologies and innovation are due to limited R&D investment. The 2012 Zimbabwe Science and Technology Policy focuses on biotechnology, ICTs and indigenous knowledge systems. The Policy requires the Expenditure on Research and Development (GERD) to be at least 1% of GDP. Zimbabwe's GERD was 0.12% and 0.76% of GDP in 2009 and 2012 respectively. Africa's average GERD is the lowest of the developing regions at 0.1% of its GDP, the developed economies are 3%-4% and global average is 0.4%.

Zimbabwe can start digital innovation by developing an ICT skills base leveraging the high literacy rate which creates both a domestic market and source of labour. Home Affairs can have incentives schemes and offer citizenship or residents permits to foreign ICT experts, professors and R&D staff. Zimbabweans can send out its citizens to work for Google, Facebook, WeChat to acquire skills. Zimbabwe has agriculture research centres that are in a bad state due to lack of

capitalisation. These can be converted to agriculture software development points.

The entry point of digitization is through the telecommunications sector. Zimbabwe telecoms 2017 revenue was US\$1.1Billion and the investment over the past 5 years was US\$1.0Billion. Zimbabwe has to produce technology for local consumption, where necessary, in collaboration with the more developed economies. Technological innovation must be accessible in cost, the skills required to use it, availability, and meeting a widespread need.

A major contribution to Zimbabwe's economic distortions is the informal economy which contributes up to 60% to the total. If this large informal sector is formalised through digital innovations such as electronic payments, the benefit could mitigate the agriculture and mining volatile commodity prices.

The digital innovation can be funded through reprioritising existing money. The ICT industry is taxed 2% USF, 1% Innovation fund and 5% health levy making a total 8% which is equivalent to US\$88Million per year from the US\$1.1Bilion revenue. The ZIMDEF fund is reported to be about US\$40Million per year. If government budgets GERD of 1% of GDP then that gives US\$250Million. This gives a total of US\$378Million. Government can also allocate all duty on ICT products to the fund innovation. All vendors that win government ICT tenders can fund innovation. Digital Innovation companies can be listed on the stock exchange.

Global geo-politics and geo-economics create an evolving world order which Zimbabwe has to navigate. The world economy now pits flight-weight against heavy-weight boxers where the rules change while the boxers are fighting in the ring. Zimbabwe needs an economic model that leapfrogs heavy-weight boxer qualification stage while simultaneously winning the fight as a flight-weight boxer. The government may have to consider aligning science, technology and ICT policies to create overall ownership and accountability for

Digital Innovation which cuts across these three areas.

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