Post Conference Report

Theme: Knowledge, Innovation, and Development in Eswatini: Current and Future Prospects

23 March 2020
Contents

1. INTRODUCTION ......................................................................................................................... 3
   1.1. Why Focus on a Knowledge Economy? .................................................................................. 3
   1.2. Knowledge, Innovation and Development in Eswatini ......................................................... 4
   1.3. Expanding the Catchment Area for Technological Innovation ............................................ 5
   1.4. Conference Format ............................................................................................................. 6

2. CONFERENCE PROCEEDINGS: DAY 1 (OCT 23rd, 2019) ......................................................... 8
   2.1. The Opening Ceremony & Keynote Address .......................................................................... 8
       By His Excellency the Right Honourable Ambrose Mandvulo Dlamini ...................................... 8
   2.2. Public Lecture: Domestic Revenue Mobilisation; Current State & Opportunities for the Future, by CG, Mr Dumsani Masilela ................................................................. 12

3. CONFERENCE PROCEEDINGS: DAY 2 (OCT 24th, 2019) ...................................................... 15
   3.1. The Plenary Session .......................................................................................................... 15

4. CONFERENCE PROCEEDINGS: DAY 3 (OCT 25th, 2019) ....................................................... 36
   4.1. Plenary Session ................................................................................................................. 36
       4.1.1. Financial Inclusion in Eswatini: Repositioning for Resilience through Fintech, by Mr David Myeni, CEO for the Centre for Financial Inclusion (CFI) ................................. 36
       4.1.2. Why Should Eswatini Care about Technology .............................................................. 37
       4.1.3. Presenter - Mr Sakhile Dlamini of Google ................................................................. 37

5. CONCLUDING REMARKS AND POLICY NOTES .................................................................. 39
1. INTRODUCTION

In 2017 the Eswatini Economic Policy Analysis and Research Centre (ESEPARC), the Central Bank of Eswatini (CBE), and the University of Eswatini (UNESWA) held the first ever Eswatini Economic Conference (EEC) under the theme “ECONOMIC RECOVERY AND SUSTAINABLE GROWTH IN ESWATINI”. A consensus emerging from this first conference was the importance of preparing the Kingdom of Eswatini for the economic challenges emanating from the global economy as well as those from the region by boosting the roles of innovation as well as knowledge generation and management in its development. The Conference suggested that these themes should be pursued more vigorously in future conferences.

The theme for the second Eswatini Economic Conference that was held in 2019 was therefore “KNOWLEDGE, INNOVATION AND DEVELOPMENT IN ESWATINI: CURRENT AND FUTURE PROSPECTS”. This second edition of the Eswatini Economic Conference provided a platform to discuss and begin to materialize the knowledge economy that Eswatini can potentially become. Similar to the 2017 Conference, the EEC 2019 was a two-and-a-half-day conference, which brought together policy-makers, researchers, development practitioners, captains of industry, development partners as well as all stakeholders to discuss the challenges and opportunities of knowledge, innovation, and development on the economy. Insights derived from the conference are well positioned to contribute towards the country’s attainment of Vision 2022, the Sustainable Development Goals (SDGs), and the African Union Agenda 2063.

1.1. Why Focus on a Knowledge Economy?

As is well known, the global economy has entered the fourth industrial revolution, in which technology is positioned to disrupt the way we live, produce goods and services, and relate to one another as individuals, countries, and global economies. To thrive in the fourth industrial revolution, countries must not only embrace science, technology, and innovation but also other aspects of the knowledge economy. The extent to which a country masters knowledge and innovation in the fourth industrial revolution will determine its pace of social and economic development. Therefore, knowledge and innovation present many avenues for unlocking opportunities for younger generations for many years to come. In fact, knowledge and innovation are the key ingredients that can prepare Eswatini for the economy of the future. The knowledge generated and acquired should be more so foster responsible innovation with minimal internal and external risks.

Investing in preparedness for the economy of the future has the potential to drive an export-led economy and improve Eswatini’s trade situation. To explain, over the past 50 years, the United Kingdom has been largest single destination of Eswatini’s exports until 1981 when South Africa became the largest single destination of Eswatini’s exports. The export basket has been composed of a limited number of products with very little change and value-addition as the country approached the new millennium. Sugar has been one of the country’s exports since 1968, accounting for 20.53% of the country’s exports in 2015. Soft drinks concentrate which started being produced in the
country in 1988 accounted for more than 50% of total exports in 2015. It appears that Eswatini have been able to take advantage of the trade agreements that concerns the trade of sugar. This is the only export commodity that has stood the test of time. The Eswatini Economic Conference 2019 is of the view that Eswatini is capable of more than just the sugar industry. Investments in science, technology, and innovation is the route that the Government of Eswatini (GoE) needs to take advantage of in order to improve the trade capacity and profitability of Eswatini’s trade agreements. This can undoubtedly turn the economy around and spur the much needed economic growth. Besides the benefits of trade, turning into science, technology, and innovation has the potential to channel a majority of Eswatini’s youth into productive economic activities that can lead to even higher level of growth with the least inequalities.

1.2. Knowledge, Innovation and Development in Eswatini

In the past 50 years of Eswatini’s development, the economy witnessed significant fluctuations. In the mid1980s economic development in Eswatini was at its highest peak, as the country was among the 20 fastest growing economies in the world. However, the period of fast economic growth was short-lived as economic growth rate began to plummet in the late 1990s and the country was then rated among worst global performers. The question is what went wrong and what can emaSwati do to return to steadier and welfare enhancing economic growth? The government, the business sector, and other stakeholders believe that the answer lies in innovation and the deployment of science and technology. Whereas the National Development Strategy (NDS) of the Kingdom commits government to use science and technology to stimulate and drive economic activity. However, in reality not much has been achieved to induce a knowledge based economy that places economic policy emphasis on science, technology, and innovation, include knowledge generation for evidence based policy decision making and programming.

The GoE recognises the importance of knowledge and innovation in creating jobs for the population. However, the country continues to experience high unemployment (23% according to the 2016 Labour Force Survey (LFS), dropping from 28.1% in 2014), brain drain, high equality and low levels of innovation. Many have argued that the major cause of the foregoing issues is that there is limited exploitation of the scientific enterprise in Eswatini. For example, studies have shown that there is currently under-investment in research and development (R&D) and higher education, as well as limited support for entrepreneurship and entrepreneurial activities, which are restricting the country’s ability to master knowledge and innovation to drive the much needed growth in the economy. Moreover, science, technology, and innovation policy is also restrictive, with glaring incongruences in the coordination of research and development, skills development, and technology management.

The good news, in spite of these challenges, is that Eswatini has a youthful population that demonstrates a high propensity for absorbing and adopting new technologies. For example, in 2017, the youth population (15–34 years) and children (0–14 years) accounted for 79.1% of the total population. A key objective of the Eswatini Economic Conference 2019 was to examine the best ways to use knowledge and innovation to
support employment, income generation, and wealth creation in Eswatini with a special focus on the youth. The conference discussed and proposed strategies for expediting the economy-wide adoption of new technologies by Eswatini’s Small and Medium Enterprises (SMEs). Furthermore, it provided a platform for analysing forward-looking industrial policies and science, technology, and innovation strategies that can support the country’s push to operationalise ‘Made in Eswatini’, and unlock the economic opportunities available within the Kingdom of Eswatini’s borders.

1.3. Expanding the Catchment Area for Technological Innovation

The need to acquire technological competences has become critical as Eswatini enters the last three years of the implementation of the National Development Strategy (NDS). While the GoE has managed to develop excellent pro-poor infrastructure and economic strategies for transformative economic activities, the economy remains trapped in the decline phase. Eswatini’s SMEs lack the technology needed to drive industrialisation and create jobs in the economy. The Global Competitiveness Index (GCI) 2017 ranked Eswatini 130 out of 137 countries on innovation and sophistication factors, suggesting that Eswatini is not an innovative economy. The GCI 2017 also ranked the country 124 out of 137 countries on efficiency enhancers, which suggests very low economic competitiveness. Therefore, to resuscitate economic growth, the importance of providing targeted support to local SMEs to jumpstart industrial activities and set the economy on a renewed and improved growth path cannot be overstated. To spur economic growth and put an end to the decline phase requires that Eswatini’s SMEs upgrade their operational competitiveness; meet local, regional, and global technical production standards. They also need to focus on the manufacturing and production of everyday goods and services with a view to developing the required set of competencies to renew foreign interests and investors in Eswatini’s economy.

Fortunately, the GoE’s recent investment in a science and technology park, that is, the Royal Science and Technology Park (RSTP) points to the bold steps Eswatini is willing to take to improve its capacity for innovation and competitiveness. It is the first decisive step towards transforming Eswatini into a knowledge economy, that is, an economy anchored on knowledge to sustain long-term growth. The World Bank Knowledge Economy Framework emphasises that besides having an institutional environment that is conducive for the creation, diffusion, and absorption of knowledge, the economy of the fourth industrial revolution will require a well-educated and skilled population, a dynamic information infrastructure and an efficient national system of innovation. Here too the issue of providing targeted support to R&D, innovative activities, and skills development through improved funding for tertiary education and high-quality laboratories equipped with the latest equipment and software, and relevant curriculum is foundational to operationalise the Science Park and make ‘Made in Eswatini’ a reality. Likewise, the country’s ability to develop capacities to produce the goods and services that emaSwati and the rest of the world need requires the proper organisation and coordination of regulatory institutions, especially those that deal with quality and standards, SME development and support (including the financial sector), and science and technology. Equally important is the identification and prioritisation of what Eswatini wants to be known for in the world besides sugar.
Therefore, the conference brought together policymakers, researchers, development practitioners, captains of industry, development partners, and other Eswatini stakeholders to deliberate on this pressing issues of how to resuscitate the economy through knowledge, innovation, and forward thinking industrial policies. In general, the purpose of the Eswatini Economic Conference was to:

- promote policy dialogue and evidence-based policy planning and implementation;
- provide an environment to foster dialogue and the free exchange of ideas and innovative thinking amongst local researchers, policymakers, captains of industry, development partners, and the broader Eswatini, regional, continental, and international community in Eswatini;
- stimulate and increase research on economic and policy issues related to the development of the Kingdom of Eswatini; and
- provide an opportunity for Eswatini’s researchers, postgraduate students, and emaSwati in the diaspora, to disseminate research findings as well as share information with local policymakers and the broader Eswatini society on the work they do about the country.

To this extent, the EEC 2019 focused on economic policy issues in Eswatini—successes, lessons learned, and identifying gaps preventing the country from attaining its developmental objectives, including the implementation of development plans and strategies.

1.4. **Conference Format**

The two-and-a-half-day Conference comprised of one roundtable discussion led by two keynote speakers and seven (7) panellists; a public lecture headlined by the EEC 2019 diamond partner – Eswatini Revenue Authority (SRA); two morning plenary sessions; four workshops hosted by the EEC 2019 platinum partners; six breakaway sessions in which a minimum of three research papers were presented; and two poster presentations. The breakaway sessions related to the core theme of the EEC 2019, with a key focus on knowledge generation; financial technology; science, technology, and innovation; and entrepreneurship.

The main theme of the EEC 2019 was further broken down into six sub-thematic areas:

I. Knowledge generation and management for structural transformation.
II. The role of new technologies in strengthening productive capacities.
III. Building a competitive industrial base.
IV. Human capital development and building capacities for the new economy in Eswatini.
V. Structural and macroeconomic reforms to boost competitiveness and growth.
VI. Financial innovation and macroeconomic stability.
Keynote speakers included:

- **Dr Nokuthula Hlabangane**: Senior Lecturer, University of South Africa (UNISA), South Africa – ‘Leveraging Indigenous Knowledge for Development: The Case of Africa’s Development Story’
- **Dr Abel Ezeoha**: Professor of Finance, Ebonyi State University, Nigeria – ‘Impact of R&D Investments on Industrial Productivity in COMESA’
- **Mr Sakhile Dlamini**: Software Engineer, Google LLC, USA – ‘Why Should Eswatini Care about Technology?’
- **Mr Moshtaq Ahmed**: CEO, NybSys, Eswatini – ‘Potential for Fintech in Eswatini and Consequences of Missing Opportunities’
- **Mr David Myeni**: CEO, Centre for Financial Inclusion (CFI), Eswatini – ‘Financial Inclusion in Eswatini: Repositioning for Resilience through Fintech’
- **Professor Chandraiah Esampally**: Lecturer, University of Eswatini (UNESWA) – ‘The Benefits of Blended Learning’.

Partners consisted of the following institutions:

**Diamond**: Eswatini Revenue Authority (ERA)

**Platinum**: Royal Science & Technology Park (RSTP)
  - First National Bank (FNB) Eswatini
  - United Nations Development Programme (UNDP)

**Bronze**: Eswatini Communications Commission (ESCCOM)

The Conference was held from the 23rd to 25th of October 2019 at the Royal Swazi Spa Convention Centre, Ezulwini attracting a large number of delegates as follows:

<table>
<thead>
<tr>
<th>Number of Delegates</th>
<th>October 23</th>
<th>505 delegates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>October 24</td>
<td>342 delegates</td>
</tr>
<tr>
<td></td>
<td>October 25</td>
<td>284 delegates</td>
</tr>
</tbody>
</table>

All invited guests and researchers who contributed papers for presentation at the Conference were registered by the Secretariat while members of the public were invited to register on the EEC website (www.economicconference.org.sz). Attendance and participation in the Conference was free of charge.
2. CONFERENCE PROCEEDINGS: DAY 1 (OCT 23rd, 2019)

2.1. The Opening Ceremony & Keynote Address

By His Excellency the Right Honourable Ambrose Mandvulo Dlamini

Prime Minister of Eswatini, His Excellency the Right Honourable Ambrose Mandvulo Dlamini officially opened the Conference. The PM was accompanied by the Minister of Finance Hon Neal Rijkenberg, Minister of Justice and Constitutional Affairs Hon Pholile Shakantu, and the Minister of Sports, Culture and Youth Affairs Hon Harries Madze Bulunga.

In his speech, the Prime Minister lauded ESEPARC, the CBE, and UNESWA for continuously producing quality research, and stated that government recognises the need for more funding towards national endeavours. Underscoring its importance, the PM noted that research is needed to improve and sustain the development projects government has invested in across the country, to accelerate production and development in an efficient manner. Noting some of the work done by ESEPARC, the PM highlighted a study conducted by the institution that recommends putting in place mechanisms to amplify private sector participation in the funding and performance of research and development (R&D). He appreciated the invitation to celebrate outstanding research work done by emaSwati in addressing topical economic policy issues on how to stimulate economic growth and sustainability.

His Excellency also commended the three institutions for putting together one of Eswatini’s important knowledge-sharing platform to create space for economic policy dialogue. He assured the nation that government was looking forward to receiving the policy recommendations and that he was confident that these would go a long way in complementing and supporting the development initiatives aimed at poverty alleviation and the economic revival of the country. In order for emaSwati to strive, the PM called on the nation to embrace science, technology and innovation, and all aspects of the knowledge economy. He noted that government recognised the importance of creating the ‘Eswatini we want’, hence building a competitive industrial base was key - which require finding unique opportunities or value chains for industrialisation, prioritising Eswatini’s trade agreements, and operationalising Special Economic Zones.

The PM called on emaSwati to embrace the extent to which the country leveraged knowledge and innovation as the cornerstone of the economic make-up to determine Eswatini’s pace on social and economic development. He further reiterated government’s commitment towards addressing structural bottlenecks that inhibit growth, in order to boost investment, stimulate private sector growth, accelerate human capital development, achieve policy certainty, and develop measures to shield the economy against global shocks.

The Minister of Finance, who introduced the Prime Minister, said the Conference could not have come at a better time given the current economic climate in Eswatini where fresh ideas were needed to revive the economy. He acknowledged the Conference as an invaluable platform for generating current and relevant ideas to inform policy and decision making in Eswatini. The Minister reaffirmed government’s commitment in
continuing to roll out and implement the Eswatini Strategic Roadmap 2019-22, and that Government looked forward to incorporating the policy recommendations emanating from the Conference.

2.2 Welcoming Remarks by Central Bank Governor, Mr Majozi Sithole

Welcoming all guests and delegates to the Conference, Central Bank of Eswatini Governor Majozi Sithole (represented by Assistant Governor Mfanfikile Dlamini) acknowledged the technological strides Eswatini has taken in the recognition of knowledge and innovation. He applauded His Majesty’s Government for its recognition of the importance of knowledge and innovation in creating jobs for the country’s citizens. The governor noted that high levels of unemployment, skills exodus, and low levels of innovation were indeed some of the impeding factors to economic prosperity. He emphasised that studies had shown that there is currently under-investment in research and development (R&D) and higher education, as well as limited support for entrepreneurship and entrepreneurial activities, which were restricting the country’s ability to master knowledge and innovation, and to have greater control of the economy.

2.3 The Roundtable Discussion

Feeding off from the keynote address by the Prime Minister, the Conference proceeded into a roundtable discussion based on two presentations. The first speaker was Dr Abel E. Ezeoha, a Finance Professor in the Department of Economics and Department of Banking and Finance at Ebonyi State University, Nigeria. The Chief Executive Officer (CEO) of NybSys and DataNet Mr. Moshtaq Ahmed delivered the second presentation before the session opened for the panel discussion. The roundtable panellists were Mr Dumisani Masilela (Commissioner General, SRA), Professor Mike Matsebula (President, Economics Association of Eswatini), Ms Nomusa Dlamini (Chief Economist, Ministry of Economic Planning and Development), Mr Mluleki Dlamini (Director, Small and Medium Enterprise Unit, Ministry of Commerce, Industry and Trade), Ms Dudu Nhlengethwa (CEO, Federation of the Swazi Business Community), and Mr Mbuso Dlamini (Head of Academics, Royal Science and Technology Park).

2.1.1. The Impact of R&D investment on Industrial Productivity, by Dr. Abel E. Ezeoha, Professor – Ebonyi State University

The presentation emphasised that investing more in research and development (R&D) is key to sustainable industrial growth. R&D is critical for innovations and development, and it is the backbone of a globally competitive, knowledge-driven economy, therefore its stagnation could impede economic growth. The value of R&D is a direct outcome of the degree of stakeholder cohesion among private sector industry operators, the government, universities and research institutions, as well as international development partners. Hence, R&D produces optimal results when there is such cohesion. The presentation argued that in Africa, this cohesion rarely exists and studies find that there is a disconnection between policy needs and university research efforts. Therefore, realising the benefits requires viable policies that combine building requisite human capital for research, as well as designing strategic Centres of Knowledge (CoE) to serve local industrial needs. Dr Ezeoha explained that such CoEs must target enhancing the
innovative capacities of local entrepreneurs, and securing and guaranteeing comprehensive stakeholder engagements in CoE operations.

Speaking of the industrial characteristics of Eswatini’s economy, Dr Ezeoha noted that government was an active player and there were large-scale (usually foreign) business operators dominating the formal business space, while domestic entrepreneurs were fringe players in the formal sector but growth drivers through the informal sector. This leads to volatility in the country’s economic growth and unstable industry output, which constrains capacity to attract and sustain foreign direct investments (FDIs).

Possible solutions, according to Dr Ezeoha, included a strategic approach to R&D investments to optimise export orientation and influence of the informal sector, as well as implementing innovative and inclusive participation in the economic space. In encouraging inclusive participation of different industrial actors, there will be a need for Eswatini to strengthen its available industrial infrastructure to support increased production and productivity as well ease the cost of doing business, particularly for the industrial sector. As a suggestion, the country could incentivise innovations through public policies and programmes that encourage collaborations among R&D support institutions, for example, the Department of Agricultural Research and Specialist Services (DARSS), ESEPARC, UNESWA, Centre for Financial Inclusion (CFI), the CBE, etc. There is also a need for increased government sponsorship of specific research studies capable of generating local evidence that could feed into formulating a cohesive industrial development agenda for the country.

2.1.2. Potential for Fintech in Eswatini and Consequences of Missing Opportunities, by Mr Moshtaq Ahmed, CEO, NybSys and DataNet

This presentation highlighted how financial technology (Fintech) is shaping business through the industrial revolutions that can change people’s lives, improve the retail system and productivity, as well as enhance economic growth by helping SMEs do business better. It provided international trends on Fintech and how other countries have benefited from fully implementing such technologies. One example highlighted was how even sending money globally now takes less time, which has a great impact on productivity. For instance, there is now a variety of mobile wallets catering to different uses, with many companies driving the trend toward a wallet-less world. In addition, the retail-banking model is changing, which means transactions will indeed be faster as more technologies are adopted by the financial sector. Failure to fully implement Fintech, could result in slow payment processes and low productivity, which will be consequential to economic growth. Furthermore, without the deliberate and widespread adoption of Fintech in Eswatini, the country will mostly see a related decrease in foreign direct investment (FDI).

Mr Moshtaq posited that for Eswatini to fully embrace Fintech, the country must have smart citizens, smart businesses, and a smart government. He suggested embracing technologies such as Smart IDs (a one stop card for various transactions), which could be a potential source of revenue for government. He argued that Eswatini has all the technologies readily available, the only things needed are Near Field Communicators
(NFC) encoders and a national identity card (NID) chip to allow token-based authentication using NID. Therefore, Eswatini needs to invest in research, encourage buying of made in Eswatini products and services, have industry attachment, run pilots, build an ecosystem of related industries, give a second chance to start ups, and encourage young people to explore technology, cut red tapes, and manage development expectations.

When asked what the country can do to improve its situation in as far as innovation is concerned and what could be practical solutions to ensure that Eswatini does not miss out on the Fintech opportunities, Moshtaq said Eswatini can indeed strive in the knowledge and innovation spheres only if all emaSwati get “plugged into” the culture of using technology in every sphere of their lives be it big or small. To achieve this everyday use of technology in the way we live and the way we conduct business, the GoE has to take a leadership stance in transforming how it operates and delivers services to emaSwati by turning into a fully-fledged smart government. The presenter also noted that at one point Eswatini was in a very good ranking compared to its counterparts in terms of innovation and therefore the country and its citizens should use that as motivation to implement collaborated efforts to attain an even higher level of innovation.

2.1.3. Panel Discussion

The panel discussion emphasised that research and development needs to be harnessed to identify the factors that cause slow growth in the economy and the country to backslide in some respects. Through research, the country is likely to yield high returns in terms of sustainability of projects and reduce unemployment and income inequalities. The GoE should devise strategies on how to harness and use economic research produced by organisations like ESEPARC to fast-track the implementation of development programmes that yield the greatest value for money and greatest social and economic welfare in the country.

The Eswatini economy needs to be able to generate new knowledge and manage research so that it is easily accessible to a whole range of economic agents/institutions in the public and private sectors as well as civil society. Developing the capacities to generate and use knowledge at government level will be the catalyst for transforming basic research into applied R&D that can be used by the private sector to drive production and productivity in the different sectors of the economy. For example, one industry that can benefit from both basic and applied research is the cannabis industry. The panel discussed that the cannabis industry has the potential to make a big impact in turning the economy around. However, investment in R&D is still needed to determine the economy-wide value of the industry and to make the distinction on whether the quality of local produce is due to it being potent when smoked or because it produces useful medicinal properties that can induce the establishment of a pharmaceutical industry in Eswatini driven by the Bioeconomy Strategy led by RSTP. These are some of the pertinent issues that need to be resolved through serious investment in R&D. The panel also highlighted that the same R&D strategy could be used in the sugar industry, which recently indicated that sugar production could no longer be the only product it produces. Other examples of R&D include investigating the traditional methods of
producing distilled alcohol (mankanjane). The panellist noted that brewers in the country use sophisticated methods to produce commercial beers so investment in R&D could benefit the traditional sector so that the country could transform some of the traditional beers, medicines, and other products into commercial products in the formal economy. By deliberately formulating a research and development agenda, the country stands to benefit in the establishment of new sectors of the economy, particularly the establishment of new innovative industries that could see many SMEs forming linkages with big business to produce products proudly made in Eswatini. On that note, the Chief Economist in the Ministry of Economic Planning and Development, Nomusa Dlamini, argued that in the country’s pursuit of economic growth and development, change needs to be embraced as a package deal. She stated that as Eswatini yearns for economic growth and modernisation, technological innovation would need to be a part of the process. Dlamini also mentioned that part of the change would have to include education to develop the necessary cognitive and practical skills to support the innovation culture and industrialisation of the economy to achieve inclusive growth.

Another important submission from the panel was a discussion on how the country could practically harness the benefits that come with the 4th Industrial Revolution (4IR), which requires the country to be forward thinking and not shy away from taking bold decisions on science, technology, and innovation. To ensure that Eswatini does not miss out from the 4IR, the panel emphasised knowledge management and mastery of the key drivers of the knowledge-based economy which in turn drive the 4IR. These include the automation of systems, artificial intelligence, internet of things; as well as starting to think about the 5IR to begin understanding how computers and machines will begin to master human feelings and empathy. The National Systems of Innovation depends on how well knowledge, technologies, products and processes are converted into increased economic growth for improved quality of life. Even though the country is lagging behind in research and development investments, the GoE is currently formulating National Science, Technology and Innovation (STI) policies and strategies to guide and promote focused integration of STI in all sectors of the economy, hence the RSTP Act.

### 2.2. Public Lecture: Domestic Revenue Mobilisation: Current State & Opportunities for the Future, by CG, Mr Dumsani Masilela

The first day of the conference closed with one of the most stimulating debates centred on tax collection and how churches and public transport operators need to be considered within the tax system. This was after a presentation by SRA Commissioner General (CG), Mr Dumisani Masilela on Domestic Revenue Mobilisation. The CG noted that development as defined by not only increases in per capita income, but also an improvement in the standards of living for the citizens, requires a certain level of government revenue, depending on the size of the economy. He explained that there is a link between revenue generation and development; the latter requires more resources to finance and higher levels of development increase the demand for public goods and services, hence the need for taxes. In other words, taxes are the price we pay for a civilised society. The CG further explained that at higher levels of development, more revenue is generated and collection becomes a much more sophisticated process while at low levels of development the reverse tends to hold. An appropriate balance therefore
needs to be maintained between revenue generation, economic growth, and development. He listed alternative sources of revenue that exist, these being aid, borrowing, domestic revenue generation, sale of assets. However, he pointed out that domestic revenue remains the most viable and “untied” of these, hence government’s efforts to enhance domestic revenue so as to improve domestic revenue collections and reduce reliance on trade receipts from the Southern African Customs Union (SACU). He expanded that government’s strategy on revenue mobilisation includes:

- Simplifying the tax code and enacting revenue reforms to encourage and stimulate SMEs growth;
- Improve revenue laws to reduce loop holes in revenue collections including limiting losses, transfer pricing issues and reviewing the withholding tax regime;
- Expand the tax base;
- Review taxes on individuals and corporates to reduce the burden and stimulate growth and investment;
- Improve tax dispute resolution mechanisms through a Tax Tribunal.

The CG pointed out that government expenditure is growing faster than revenue, hence the need for expenditure control or increase revenue mobilisation.

### 2.2.1. Delegate Comments

- One of the delegates wanted to know how SRA would tackle churches on taxation. “I have seen quite a number of issues that pertain to the church. Some people have a Bible on one side and church on the other side yet these do not meet, who is fooling who? Let the church be taxed because it is a business,” he said. In response, Masilela said they too as SRA had noted that there are genuine churches and then there are churches that are businesses. He explained that churches are exempt but once they start operating like a business they then need to be taxed. “We exempt certain entities but you submit your accounts and we see if you are still operating like a church, so regular churches are not taxable,” explained the CG.

- Another concern raised by the delegates was how SRA is handling public transport operators. Masilela noted that the public transport industry is one of the SRA’s biggest challenge; however, what could help solve the problem is to ensure that most of transport operators are licensed. The Authority will work on its database to ensure that they are integrated into the tax base since most systems are now computerised and once aligned everyone will be visible to the SRA.

- Some delegates also advised the SRA that once the GoE identifies new sources tax revenue; Government working with SRA should in turn also identify and implement tax reductions to reduce the burden on current/existing taxpayers. Furthermore, the delegates were also of the view that some of the levies that are collected should be ploughed back to the economy through developing SMEs so that these companies can become the engine of economic growth.
There was also a consensus that despite that tax collection in Eswatini is consistent and at times high, service delivery is not at a similar high quality standard. The delegates called upon SRA to ensure that as its continues with its domestic revenue mobilisation strategies, the standard of living must also be improved by the funds collected. On a similar note, Business Eswatini’s President, Andrew Le Roux who was one of the panellists, shared an opinion that the problem is not that income tax is high per se, the concern is that people feel that they are paying an internationally benchmarked tax rates while they are not getting quality public health, quality public schooling, and quality services commensurate with the international standards of living.

There was a consensus among the delegates that while the SRA’s mandate is to provide an effective and efficient revenue and customs administration driven by a high performance culture to promote compliance through fair, transparent, and equitable application of the law, stimulate economic growth, the authority tends to benchmark its tax policies and targets with international agencies thus taxing the domestic base to a level that does not help to improve and grow the local economy.
3. CONFERENCE PROCEEDINGS: DAY2 (OCT 24th, 2019)

3.1. The Plenary Session

The programme for day two of the Conference comprised a morning plenary session led by presentations by two keynote speakers; Dr Nokuthula Hlabangane, a Senior Lecturer in the Department of Anthropology and Archaeology at the University of South Africa (UNISA) and Professor Chandraiah Esampally, Coordinator of Academic Studies Unit at the Institute of Distance Education (IDE), UNESWA. There were also parallel workshops/seminars hosted by the partner institutions as well as parallel thematic sessions where the EEC 2019 research papers were presented.

3.1.1. Leveraging Indigenous Knowledge for Development: The Case of Africa’s Development Story, by Dr Nokuthula Hlabangane

The presentation argued that rapid capitalism is approaching an inevitable end. Through this premise, Dr Hlabangane posited that when problems are complex, affecting many sectors and levels of society, there is a need for major changes. In cases when marginal changes are not sufficient, when domestic trends are part of the problem, then focus should shift from where we seem to be heading to where we want to go and how we get there. She noted that outdated economic rules or the worldview of profit as the bottom-line and the centre no longer holds, as there are new conceptions of wealth/indicators of wellbeing. Africa needs to re-define ‘development’ in its own context. Dr Hlabangane dispelled the notion that everything that is African is unknowledgeable; Africans need to trust their own knowledge systems. She noted that the Western world has embraced indigenous knowledge systems such as midwifery, ethno-botany, celestial navigation, climate, as well as infrastructure development (natural filtration system, rocket shower, compost toilet, construction). According to Dr Hlabangane, indigenous knowledge systems are derived, developed, and refined locally - by the people, for the people. They are responsive to local needs and take the bottom-up approach to enhance local production and consumption: no waste and eco-friendly. Indigenous knowledge systems reflect local values: balance, reciprocity, life above profit, and community as its custody. Policy makers need to realise that Africa is not a wasteland. It was developed way before Europe. Hence, they need to advocate for afrocentricity. Africa is a centre in its own right, as an African writer once said. Eurocentric knowledge cannot underpin our aspirations,” she asserted. Dr Hlabangane suggested that for Africa to win, there is a need to affirm the self. “What this means is unlearning in order to re-learn against the ubiquitous grain of de-programming as a people. We have been de-programmed – an empty shell – inscribed and over-determined from outside.” She added that 58.9% of emaSwati living under the poverty line is cause for concern and an indication that there is a need to rethink our methods. Hence, new ideas of prosperity and security are needed because there are too many fault-lines which run too deep in the current dispensation. “One cannot measure African success with a European ruler,” she concluded.

3.1.2. Add the presentation by Prof Chandraiah Esampally
3.2. Parallel Seminar Sessions

3.2.1. The Role of RSTP in Knowledge, Innovation, and Development in Eswatini, by Mr Mbuso Dlamini, Head of Academics at RSTP

The Royal Science and Technology Park (RSTP) is Eswatini’s beacon of hope in terms of knowledge, innovation, and development. This seminar provided information on RSTP’s vision and strategies, which is the hub for stimulating and commercialising science and innovation in the Kingdom of Eswatini. Head of Academic at RSTP, Mr Mbuso Dlamini highlighted that it is important to make science, technology, and innovation (STI) work for society in Eswatini and the rest of Africa. At the same time, strong research and development and innovation system are required to drive economic growth and competitiveness. The RSTP is one of the key institutions in the country that is providing in-depth characterisation of national research and innovation systems particularly focused on the personnel that perform research and innovation activities, the research and innovation infrastructure, the resources needed, and institutional setting. One of the main drivers for research, development, and innovation in the private sector is to reduce the cost of production, which is also driven by market demands and changes to innovate. Although everyone seems to innovate, one way or another, innovation is regarded as a nice thing to do and not a top priority in practise. There are no clear strategies and roadmaps for stimulating innovations for economic growth and increased productivity in the different sectors of the economy. Therefore, RSTP is positioned to be the hub and facilitator of the country’s innovations. RSTP is divided into two division sites, the Innovation Park at Phocweni and the Biotechnology Park at Nokwane. In terms of the contributing to the development the country, RSTP facilitates the creation of wealth creators, facilitates innovative technology development, and ensures that Eswatini is able to exploit technologies which have been developed outside and get them diffused into the country. The institution has six business units; the Advanced School of IT, Biotechnology Research Facilities, Business Incubator, National Contact Centre, National Data Centre and the Special Economic Zone. Each of the business units has value propositions which they seek to deliver and these cover training, research and development, incubation, contact centre, data storage and investment facilitation.

3.2.2. Solutions Mapping with the UNDP Accelerator Lab, by Mr Wakhile Mkhonza, Head of Exploration at UNDP Eswatini

The United Nations Development Programme (UNDP) is revving up its efforts in addressing Eswatini’s current development challenges. This, they hope to achieve through the introduction of a new concept known as Accelerator Labs. In a nutshell, what it entails is building the world’s largest learning network to tackle 21st century development challenges. In this seminar, UNDP Head of Exploration Wakhile Mkhonza expressed excitement at this new global initiative, which he further referred to as one of the largest experiments in the world. He stated that Eswatini is one of 60 countries in the running for the implementation of the Accelerator Lab and made mention of the fact that Botswana does not have one as yet. UNDP is betting for Eswatini to have one.

Unpacking the new concept and its necessity, Mkhonza told his anxious audience that Eswatini is facing a new set of social and environmental challenges, more intermingled
and fast-moving than ever. He revealed that the Sustainable Development Goals (SDGs) reflect some of their most complex, wicked global problems, adding that their diffuse, decentralised, trans-boundary, interlinked, and adaptive nature makes them particularly difficult to ‘solve’ for governments. This makes them ripe candidates for collective intelligence, which achieves solutions through distributed information gathering, learning and decision-making.

Therefore, he noted that although UNDP’s current approaches have made progress against 20th century challenges, not enough progress is being made against 21st century challenges. Through the Accelerator Labs concept, UNDP wants to change the way it has been doing its business in the past 70 years. Going forward, the approach will be to engage people for solutions. Effectively addressing 21st century challenges does not just require new solutions. It requires new approaches to identifying solutions, it requires addressing not just the problem in front of us but the broader environment that led to this problem. He further explained that what the UNDP is basically doing is disrupting the way we think, invest, deliver so that Eswatini can perform faster, better, and at scale. Overall, the Accelerator Lab is part of the effort to collaborate with national partners to address today’s new challenges. The success of the Lab will be seen in three ways; the influence of experimentation and acceleration on development programming, input into government policy, and spin-off Lab initiatives into independent ventures.

3.2.3. Innovation in Domestic Revenue Mobilisation, by Commissioner General, Mr Dumisani Masilela, SRA

In this seminar, The Eswatini Revenue Authority (SRA) explained in detail how it is engaging the country’s banks in a move to improve their e-filing system. This is part of the organisation’s various strategic technologies, which will set the stage for innovation over the next five years. These technologies include Cloud Computing, Robotics Processes, Block Chain, Data network and warehouse, and the Internet of things, amongst others. Commissioner General, Mr. Dumisani Masilela, mentioned that they are working on creating a link between the payments made through e-filing and the banking system. The current situation is that taxpayers can calculate their returns online on one platform and then have to logon a different platform to make their payments. Therefore, there is a need to create a link between SRA e-filing system and the online payment platforms so that e-filing can be done at the same time and in the same platform for e-payments. SRA Innovations Manager, Ms. Nelisiwe Ndlela, further stated that in the era of the Fourth Industrial Revolution, they want services that will make it easier for taxpayers to comply. She however noted the SRA discovered that they might not have the capacity to carry out these technologies, hence they are partnering with a South African company. There are a number of these technologies that SRA wants to adopt because they will help ease operations. This is however a process and going into the future these strategic technologies will help Eswatini improve its tax system, especially on taxpayer compliance.

3.2.4. Technology and its Impact on Future Banking Experiences, by Mr Sakhile Dlamini, FNB Eswatini
In this seminar, First Nation Bank of Eswatini (FNB) discussed the future of banking, how it will require financial institutions, particularly banks, to offer consumers services that will add value in their lives and provide cost-effective technology based solutions. During the seminar about 150 delegates were empowered on the impact of technology and innovation in their lives and future banking experiences. FNB Eswatini partnered with ESEPARC to bring Google Software Engineer, Sakhile Dlamini, based in California, USA to come and speak on how technology is changing the way people live their lives or conduct their businesses. Dlamini shared personal and professional experiences on technology, noting that when harnessed correctly, innovation has the power to improve the lives of everyone including in the banking sector. He noted that investing in financial technology is now one of the most important developmental pillars for many economies. Sakhile argued that banks of the future will not only focus on selling the various products to customers but will also consider also giving them services and experiences that make their transactions easier and more seamless.

Dlamini also encouraged investment in infrastructure, education, and personal development in the technology sector so that the people in Eswatini can fully harness the benefits that come with technology and participate actively in the various industrial revolutions. He also noted that Eswatini is rich with knowledgeable people. “For me it is really impressive when I talk to you guys. People here are talking about intellectual property and it tells me that Eswatini is very advanced in terms of their intellect. You have a lot going for you that can make the country competitive”, he beamed with excited. He made examples that a number of emaSwati are being recruited for technology jobs overseas in companies like Amazon. He argued that Eswatini needs to invest in education in the technology field so that they will not experience job losses and brain drain but instead position herself to plug into fresh opportunities coming in with the fourth industrial revolution.

He said there is a need for a mind-set shift to research on how to do things better using technology. “Even though it seems banks and other companies are closing branches due to automation, they will not close all branches. We need to understand the technology and work in that space. There actually has been a lot of demand in other industries, thanks to technology. The country needs to be a whole lot open minded on thinking about how to put technology into it. On that note, there is also a need for more people to consider computer science as a field of study in order to see what they can benefit from technology”. He noted that the field seems hard but in reality, as long as one is good in mathematics then they can explore this sector.

Speaking on the future of the banking industry, he made the assertion that people need to think globally. He noted that competition now is no longer the physical company that is closer to you but it is the global technologies like block chain. By using technology systems like cloud computing, many companies could save a lot of money in their operations as opposed to constructing their own infrastructure. Nevertheless, while all digital systems are good there are still challenges that Eswatini needs to address, including costs of internet as well as speed and connectivity. He said with better connectivity and more affordable internet, Eswatini would be able to fully exploit the benefits of technological services and products. The challenge is for policymakers and
stakeholders to invest in technology infrastructure, noting that the solutions for better systems lie in locals seeking their own solutions for the problems they face so that they can develop local applicable technologies to boost the local economy. Overall, Dlamini encouraged the GoE and all emaSwati to get on a new wave of thinking when it comes to tech issues. The country needs to embrace technology and be deliberate in the investments and use of technologies to improve the efficiency of the economy and boost the standard of living for all emaSwati.

3.3. Paper Presentations (I suggest that all the authors of the papers must be included instead of saying by the presenter)

3.3.1. Theme 1: Knowledge Generation and Management for Structural Transformation

i) Innovation in Eswatini: Past, Present, and Future Prospects Author - Tengetile Hlophe and Thulasizwe Dlamini of the Eswatini Economic Policy Analysis and Research Centre

ii) Presenter – Tengetile Hlophe

Innovation is a catalyst for social and economic development and as such a precondition for progress. Given the need to increase economic activity and expand GDP in Eswatini, this study documents the history of innovation in Eswatini and assesses the potential for the traditional sector as a source of new growth. The study purposively sampled and interviewed 129 producers in the Manzini, Mbabane, and Ezulwini market places and complemented the surveys with an extensive analysis of the innovation and industrial development literature in Eswatini. The study finds that whereas Emaswati are innovative, innovation has been incremental and driven by global technological developments, government policy, new market opportunities, and changes in lifestyle and society. The study confirms that the traditional sector is a viable source of new growth. However, to realise its true potential there is a need to address the demand and supply side factors that inhibit production and innovation in traditional industries. Therefore, combining modern technology with traditional knowledge and skills presents opportunities for value creation, product development or improvement, differentiation, and improving the competitiveness of Eswatini’s indigenous products in global markets. However, for this to happen requires investments in research and experimental development, innovative marketing strategies, innovation, and setting of progressive standards and quality assurance systems.

Recommendations (let’s have a maximum of 4 recommendations for each paper, hence I suggest that some of the recommendation presented below should go).

- Improve measures and support activities to capture the knowledge base and capabilities of traditional sector firms.
- Develop industrial strategies that encourage productive economic activities and innovation through complete value chain development.
- Increase investment in research and development (R&D) to support the development of new products and improvement of products in the traditional industrial sector.
Education sector should enhance linkages between artisans and TVET institutions to promote technology prospecting, adoption, and skills upgrading for producers in the traditional sectors.

Improve the facilitation, and provision of guidance to producers on product standard and quality enhancement, setting of pricing systems and models, marketing policies, action plans, and marketing directions for product development and trade in national and international markets.

Develop progressive standards and quality assurance systems for traditional industries to encourage innovation, product improvement, and build product quality capacities in local industries.

Improve policies and regulations against the use of traditional medicine to promote integration and learning between traditional systems and modern medical systems.

Use public procurement policy to foster innovation, value addition, and increase demand for locally produced goods and services.

Build tourism value chains around communities and package the way of life of Emaswati in the tourism industry, for instance through the improvement of traditional cuisine and craft surrounding tourist attraction areas.

Develop intellectual property policies to support indigenous innovation and develop appropriate beneficiation models for rural communities and producers to benefit throughout the value chain.

iii) The Implication of Teenage Pregnancy: A Trend and Spatial Analysis

iv) Author - Nompulelo Dlamini of the Eswatini Economic Policy Analysis and Research Centre

v) Presenter: Nompulelo Dlamini

Teenage pregnancy remains a peculiar problem of Sub-Saharan Africa. In Eswatini, children are robbed of the opportunity of being in school due to teenage pregnancies with serious ramifications on social and economic welfare. This study assesses the extent of teenage pregnancy in Eswatini with a focus on the regions, constituencies, and public schools. It examines how this issue compares among these sub-divisions of the country. The study further adopts a Generalised Ordered Logit Model to determine the likelihood of teenage pregnancies across the regions. The model identifies which teenagers are susceptible to repeat births and identifies the age at which Eswatini’s children are vulnerable to teenage pregnancies. It also examines the key socioeconomic factors of teenage pregnancies in the most vulnerable regions, constituencies, schools.

The study revealed that Hhohho, Manzini, and Shiselweni regions account for the highest number of teenage pregnancies and Lubombo with the lowest respectively. Furthermore, the study finds that young girls are susceptible to pregnancy as early as 11 years old and identifies teen mothers in Lubombo and Shiselweni as more vulnerable to repeat births such that at the age of 16 they are already having 3 or more babies. Teenage pregnancies occur in the poverty-stricken areas where there are low economic
activities and the households are experiencing low incomes, specifically, in places such as Madlangempisi, Ngwempisi, Sigwe, and Lomahasha. The study finds that most of the pregnancies occur when the pupils are idle during school holidays. In terms of costs associated with a child dropping out of school due to teenage pregnancy, the study estimates that the Government of Eswatini has lost E864,769 through Free Primary Education in the past six years. This figure is an underestimate considering the fact that government also pays for the learning materials, food, and health-related costs of these pupils who end up dropping out of school. Factoring all of these costs, the study estimates that government could lose as much as E43,332,200 if it were to consider funding secondary education without addressing the problem of teenage pregnancy. In addition to these losses, the study estimates that in health costs, government pays an estimated E511,467,572.72 on health subsidies to child birth costs in the different government hospitals just on teenage pregnancy cases. The study, therefore, recommends that policies and programmes geared towards teenage pregnancy reduction should be intensified in rural areas and employment opportunities should be created to relieve households from low incomes.

**Recommendations**

- Increase the intensity of programmes designed to prevent unprotected sexual behaviours in the rural areas.
- Strengthen the Comprehensive Sexuality Education in schools making sure that it is curriculum-based prior and after the puberty stage to prevent early pregnancies.
- Strengthen the Junior Achievements and Enactus programmes to reduce the idleness of the pupils and also to develop their entrepreneurial skills hence increasing chances of employment among themselves.
- Provide employment opportunities especially for people in the rural areas to keep their minds occupied.
- Government should also consider giving contraceptives, like condoms, as part of the scholar’s stationery, to help curb pregnancy situations for those who let their emotions get out of their skin. (same as the first one I feel like it should be incorporated to the first one)

---

**Stokvels: An Instrument for Income Generation and Wealth Creation?**

*Author: Ntando Nkambule of the Eswatini Policy Analysis and Research Centre*

**Presenter – Ntando Nkambule**

Stokvels are increasingly being recognised as a solution to contribute to income generation and wealth creation, especially amongst low-income earners who are excluded from the formal financial markets. This study investigates the contribution of stokvels to income generation and wealth creation in Eswatini with a particular focus to the poorest region, Lubombo. The study uses 103 stokvel participants from the Shewula
chiefdom, Lubombo. The study employs Principal Component-based asset index as a proxy for assets accumulation (wealth creation). The findings from the descriptive statistics indicate that women are dominating stokvels participation in households. In support of income generation, the participants in the study are capable of saving up to E159,638 per annum, and the total loans issued increases the total contributions by 12%. The generated revenue results to a total of E169,359.60 by the 103 respondents used in the study. Even though the prominent goals for most of the participants are consumptive, still members can acquire assets and accumulate wealth through borrowing before the cycle matures, thus significantly increasing their socioeconomic status. The study recommends that the government create stokvel representative body (such as Eswatini National Association of Stokvels) that will monitor, deal with stokvel issues, and register stokvels in the country to capture the Lilangeni value of stokvels that is circulating in the informal economy.

Recommendations

✓ The Government should monitor stokvels in the country in order to capture the total Lilangeni value that stokvels generate in the value of the shadow economy, such as creating a stokvel representative body where stokvels can register, and address other stokvel issues.

✓ To capacitate full financial inclusion among the vulnerable, low-income, and the underserved the Government needs to promote documentation of credit history of the stokvels members through utilising financial technologies such as transacting through the mobile money platform. This could also give insight into the creation of the rural financial inclusion policy that the National Financial Inclusion Strategy (NFIS) lacks.

✓

3.3.2. Theme 2: The Role of New Technologies in Strengthening Productive Capacities

i) Economic Impact Analysis of Credit Guarantee Schemes in Eswatini: A Case of the Small Scale Enterprise Loan Guarantee Scheme (SSELGS) – Author: Machawe Zwane of the Eswatini Economic Policy Analysis and Research Centre

ii) Presenter: Machawe Zwane

The study highlights that the main rationale behind the loan guarantee scheme is the fact that the scheme has been operational for 27 years without any comprehensive evaluation. Using data from 315 beneficiaries this study assesses the impact of the Small Scale Loan Guarantee Scheme. The study assessed both the financial and economic contribution of the scheme. Data from beneficiaries was elicited through face-to-face interviews using a structured questionnaire, whereas key informant interviews using a semi-structured questionnaire elicited data from participating banks. The study also assessed visibility of the scheme as well as its efficiency in terms of loan approval period
and claim processes. From the sampled beneficiaries, 174 SMEs would not have accessed credit if the scheme was non-existent. Collectively, these SMEs received E42,918,616.00. On the other hand, 72 of the 174 started new businesses and at the time of the interview, they collectively had 681 employees. The study found that the default rate is high at 44.3%. The study also found that the approval period of loan application varies widely, with some respondents reporting a period of less than a month while others reported a period of up to four years. The study concludes that the scheme has made a positive impact in both financial and economic contribution. The results show that the scheme has made a positive contribution to the economy both financially and economically. Financially, E42.9 million has been received by 174 beneficiaries whilst economically, the study finds that 72 beneficiaries have started new businesses and created 681 job opportunities. In terms of efficiency of the scheme, it was noted that the claim for defaulted beneficiaries are not paid on time and that the time between loan application to loan approval is long. It was further highlighted that there is little coordination between the Central Bank of Eswatini (CBE) and the commercial banks. Moreover, most of SMEs in Eswatini do not have a credit record, which compromises the due diligence done by the banks. Recommendations included the need for awareness campaigns about the scheme, improvement of claim management processes, and a creation of a credit information system.

**Recommendations**

- From the results, it is clear that public awareness about the scheme is low; therefore, the study recommends that stakeholders managing the scheme should organise awareness programmes. This could be achieved through the establishment of Business Information Centres (BCIs) in all towns of Eswatini.
- Regarding the application screening process, the study recommends that there be clearly defined roles of each party involved and if the SSELGS personnel are to screen the loan applications, there is need to ensure that the staff is capable of objectively screening applications from all sectors.
- Stakeholders managing the scheme should put measures in place to improve efficiency (shortening the approval period) of the screening process.
- The scheme funds mainly the extractive retail sector, the study recommends that there should be attempts to target value creating sectors such as manufacturing and agriculture.

iii) *Financial Inclusion in Eswatini: What is Driving the Adoption of Mobile Money?*

iv) **Author** - Tanele Magongo of the Eswatini Economic Policy Analysis and Research Centre

v) **Presenter** – Tanele Magongo

The study sought to identify factors associated with the usage of mobile money in the country as a means to find key areas that need to be focused on to enable acceleration of financial inclusion to 100% in 2022 as envisaged by the National Financial Inclusion Strategy (NFIS). The results indicate that the adoption of mobile money is influenced by
residing in an urban area, having a higher financial literacy score, sending and receiving remittances, usage of informal financial products, and adjusting income during times of shock. The study also noted that a gap in information exists predominantly in rural areas and this contributes to the lack of adoption of mobile money. Recommendations emanating from the study included the need to develop financial literacy education programmes, specific targeting of rural areas, and the creation of mobile money accounts that provide customers with saving accounts.

**Recommendations**

- Mobile money service providers should increase the scope of services, which can be provided by mobile money. For instance, mobile money could also have saving accounts that yield interest to entice more customers to use it more effectively other than sending or receiving airtime.
- Develop and implement financial literacy education and empowerment programs to empower the population to have increased information in terms of financial education since the research finds that higher financial literacy is associated with mobile money usage.
- To me the content is same as the point above.
- The findings also point out to existing opportunities in the population using informal financial products yet the Government does not recognize these informal stokvels formally. Therefore, there is need to examine how these informal financial products can be merged (formalized) with mobile money to ensure increased and efficient utilization between users, agents, and service providers.

vi) **Performance of Retail Micro Small Medium Enterprises (MSMEs): natives versus non-natives**

vii) **Author** - Thembumenzi Dlamini of the Eswatini Economic Policy Analysis and Research Centre

viii) **Presenter** – Thembumenzi Dlamini

The rationale behind conducting this study was based on the sentiments that Emaswati retail MSMEs believe that their foreign counterparts perform better than them. Additionally, Emaswati worry that non-native MSMEs have dominated urban areas and are slowly taking over small towns and rural areas with growing economic activities. Consequently, there was need to validate such claims because if left unattended, such statements could fuel political unrest and result to xenophobia. Based on a rapid assessment of 41 non-natives and 150 native MSME owners through the snowballing method, the results of the study show that the sentiments are not true. Using the Independent T-test on the performance indicators including net profit and number of employees’ growth determined through the Likert Scale, the results show that the performance of non-natives and natives owned MSMEs is at par, hence there is no significant difference. This shows that the speculations are fallacy. On the other hand, the results from the descriptive statistics show that non-native MSME owners receive incentives in the form of discount prices of stock, stock management and buy supplies on credit from suppliers compared to native MSMEs. However, native MSMEs face a
plethora of challenges compared to their counterparts and the rise in global prices over time imply that non-native MSMEs will take over the retail sector. Therefore, native MSMEs in Eswatini should seriously consider executing superior strategies to enable the native MSMEs to compete successfully and have an edge over its rivals. The introduction of a wholesaler specifically targeting native MSMEs could be one solution, amongst others. New ideas and ways of doing business are necessary to address the challenges facing native retail MSMEs in small towns and rural areas with growing economic activities. The performance of native and non-native owned MSMEs may be at par at the moment, but native MSMEs are expressing a plethora of disadvantages compared to non-natives. The natives who are surviving in the industry might soon lose the viability of the retail businesses because they do not have incentives to do well. Until they tackle the significant factors (incentives from suppliers) making non-native MSMEs perform positively.

**Recommendations**

- Native MSMEs in Eswatini should consider executing superior strategies to enable the native MSMEs to compete successfully and have an edge over its rivals. Setting up of wholesalers that will specifically target the supply of goods to native retail MSMEs is one option.
- Business development institutions should increase awareness on the importance of knowledge sharing and collaboration.
- Consider incorporating entrepreneurship into the education system of Eswatini, so that people can learn entrepreneurship skills when they are young.

### 3.3.3. Theme 3: Building a Competitive Industrial Base

i) **Eswatini Agriculture Sector Review: Assessing Performance in Light of the Country’s Commitments and Development Initiatives**

Author - Thabo Sacolo of the Eswatini Economic Policy Analysis and Research Centre

Presenter: Thabo Sacolo

Using time series data from 1968 to 2018, the study seeks to conduct the first agricultural sector review for the Kingdom of Eswatini. Specifically, the paper analyses performance of key sub-sectors in light of the government initiative aimed at improving performance of the sector and other regional strategies such as the Southern African Development Community (SADC) Regional Indicative Development Plan (RISDP). The study finds that both production and yield of the staple crop (maize) is characterised by a downwards trend in the face of glaring price volatility. The decline in performance is despite government effort directed towards providing support in the form of subsidised inputs and tractor hire services. Within the commercial sector, sugarcane continued to strive over the review period, with constant extensification while keeping yield (cane yield) fairly stable. On the contrary, cotton production is and area planted has decreased drastically between 1989 and 2017. Cotton yield is marked by high volatility and a downwards trend. Cotton production is visibly under threat. Regarding funding towards the agriculture sector, on average, share of government expenditure has been
decreasing since the 1987/88 financial year. The level of funding has consistently been lower than the 10% level plugged at the Maputo declaration of 2003. Even though the country has taken step (such as input subsidy and tractor hire service) toward the meeting the Malabo commitments, there is no evidence yet (in terms of increase in maize production to show for these initiatives. From 2009/10, agriculture expenditure has been dominated by capital expenditure as opposed to the previous period where recurrent expenditure consistently accounted for more than 50% of the sector’s expenditure. Part of this capital expenditure was directed to developing irrigation infrastructure, which is envisaged to moderate climate risk faced by the sector. Funding allocated for personnel goes to salaries and wages, which implies that there is little capacity building, a phenomenon that limits sector’s growth.

Recommendations:

✓ Based on the maize yield trends, it is apparent that there is a need to restructure the input subsidy scheme.
✓ The study advises that there needs to be an increase in research and funding towards the cotton sector in order to save the sub-sector from the looming collapse.
✓ In addition, there is a recommendation for replication of the sugar model in some key sub-sectors of the agriculture sector.

iv) **Implications of Migration to cost-reflective tariffs in Eswatini’s Electricity Sector**

v) **Author - Mangaliso Mohammed of the Eswatini Economic Policy Analysis and Research Centre**

vi) **Presenter – Mangaliso Mohammed**

The study investigates the possible impacts of migrating to cost reflective tariffs in Eswatini’s electricity sector. Cost reflective tariffs are economically efficient and require that the tariff paid by the customer should be equal to the marginal cost of supply. There are some implications that could be costly to the utility that have to be considered before full migration to cost-reflective tariffs in Eswatini’s electricity sector. Eswatini’s electricity sector now operates under an improved and approved National Energy Policy, as of 2018. This then calls for a need to restructure electricity tariffs to reflect the true long-run marginal cost of electricity supply. Hence the study assesses the electricity consumptions patterns of the different electricity customer categories in relation to the electricity tariffs to estimate potential responses to future price changes that might be induced by cost-reflective tariffs. For the domestic customer category, the study uses the own-price elasticity method while for the non-domestic customer it estimates the elasticities using Seemingly Unrelated Regression model. The study finds that a 2 cent real increase in electricity tariff is associated with a decrease in average consumption of 185.6 kWh for the domestic customer. Average elasticity over the 21-year period is -0.58 implying that domestic customers do not respond much to changes in electricity tariffs. For the non-residential customers, the industrial customer group is
the only group significantly impacted by changes in electricity tariff. The elasticity coefficient for the industrial customer group is -0.157, which implies that even though this customer group responds to changes in electricity tariff, a proportionate increase in electricity price results in a less than proportionate decrease in electricity consumed. Migration to cost reflective tariffs will increase domestic tariffs by 66% from E1.75/kWh to E2.90/kWh and the -0.58 elasticity means domestic consumption of electricity could decrease residential electricity sales by as much 38.3%. Overall, the study finds that demand for electricity for both domestic and non-domestic customer group is not responsive to changes in electricity tariff, that is, demand is inelastic. This means the cost reflective tariffs will most likely decrease intensive use of electricity in Eswatini, especially for low income households, which will make extending the grid and supplying electricity to low income households a much more expensive endeavour for the utility. Also noted in the study is that the major industrial customers might eventually invest in renewable energy power plants so that they can fix the total amount of electricity they buy from the utility company and allocate the excess cost to renewable sources. The less dependence on the utility for baseload electricity could drive down sales and eventually put the utility in a position where it is not able to recover the true cost of supply. In conclusion, the study finds that the demand for electricity for both domestic and non-domestic customer group is not responsive to changes in electricity tariffs, which means demand is inelastic.

On recommendations, the study suggests that before implementing the cost-reflective tariffs, the energy regulator (Eswatini Energy Regulatory Authority) should ensure that the utility (Eswatini Electricity Company) establishes efficiency improvements on supply and distribution of electricity.

For the most part, the study finds that the utility’s capital projects focus on expanding capabilities on reliability in transmission and distribution, and does not address the inherent vulnerability/inefficiency of the system.

It further recommends that Eswatini should expedite the national plans for promoting local production of electricity to reduce the cost of power. Since the utility imports well over 80% of the country’s power, the revenue requirement requested by EEC from ESERA would continue to increase based on the tariffs that will continue to increase in South Africa and in the Southern African Development Community (SADC) region.

**Recommendations**

- Before implementing the cost-reflective tariffs, the energy regulator (ESERA) should ensure that the utility (EEC) establishes efficiency improvements on supply and distribution of electricity. For the most part, the utility’s capital projects focus on expanding capabilities on reliability in transmission and distribution and do not address the inherent vulnerability/inefficiency of the system. The problem is that current pricing of electricity is clouded by inefficient supply of power (for example, a significant amount of power is lost through transmission). The cost reflective tariffs are based on a guaranteed revenue recovery for the utility regardless of the fact that the utility is not operating at an
optimal level. Any inefficiencies incurred that increase the cost of delivering electricity to the different customer types are shifted to the electricity consumers.

- The utility should explore the establishment of mini-grids that use a combination of alternative energy sources for low-income households that are located in isolated areas of Eswatini. These mini-grids can be installed for low-intensity use consumers of electricity.

- Eswatini should expedite the national plans for promoting local production of electricity to reduce the cost of power. Since the utility imports well over 80% of the of the country’s power, the revenue requirement requested by EEC from ESERA will continue to increase based on the tariffs that will continue to increase in South Africa and in the SADC region. This would be without much fair consideration on the structure of the Eswatini electricity market and its ability to absorb the price hikes necessitated by SEC’s revenue requirement among other factors.

### 3.3.4. Theme 4: Human Capital Development and Building Capacities for the New Economy in Eswatini Building a Competitive Industrial Base

i) Assessing the Economic Impact of Brain Drain on the Economy of Eswatini

ii) Author – Zamokuhle Manana of the Eswatini Economic Policy Analysis and Research Centre

iii) Presenter – Zamokuhle Manana

The revised National Development Strategy (NDS) associates the future socio-economic development of the country to the investments made in the capabilities and qualities in the stock of the human capital in the country. However, the revised NDS also still laments the unstructured emigration of emaSwati. EmaSwati have been migrating since the early 1900s and the profile of the skills has also changed to highly skilled labour, threatening industrial development and growth in the country. In understanding Eswatini’s brain drain there is a need to empirically establish the nature of the relationship between Eswatini’s economy and brain drain, derive the lilangeni value of the impact of brain drain on the economy of Eswatini, as well as ascertain the directional causality between Eswatini’s brain drain and the economy. Eswatini has been experiencing the brain drain phenomenon since the early 90s; however, no studies have been conducted to quantify the impacts of this phenomenon. It is on this premise, that this paper assesses the impact of brain drain in Eswatini. This paper seeks to quantify and provide solutions which would enable government to exploit what critics of the phenomenon would deem a dire situation. To this end, secondary annual time series data was collected for the period 1991 to 2017. The study employs the Johansen multivariate approach for co-integration and the Vector Autoregressive (VAR) model were employed as estimation techniques. The Johansen co-integration technique found that there is no long-run equilibrium relationship between the variables. The study finds that brain
drain and Gross Domestic Product (GDP) do not have a relationship in the long run and, therefore, how much brain drain impacts the economy can only be forecasted for in the short run period. Contrary to the majority of contemporary literature the study finds that brain drain has a positive impact on the economy of Eswatini. For every 1% increase in brain drain or the number of highly skilled emaSwati professionals migrating, GDP increases by E171 million and although this seems like an unmatched trade off in comparison to what the country is losing in terms of skills, local production and even tax revenue, the country is still better off since the human capital would be idle and not productive within the borders. The results show that there is a unidirectional causality running from GDP or the economy to brain drain, which means that the economy influences the brain drain trends in the country and if the country wishes to change the brain drain trends it should first change the economic environment.

Recommendations

✓ The Ministry of Labour and Social Security should consider creating a database within Labour Market Information System (LMIS) that has data and information on the frequency of the number of highly skilled people emigrating the country for substantial periods in search of job opportunities; the levels of education of these emigrants etc.
✓ The Government of Eswatini should consider creating a diaspora engagement policy to encourage Emaswati in the diaspora to contribute to the country’s development through their different skills.
✓ The Government of Eswatini should enact policies, as well as concerted and integrated national manpower development programmes such as brain exporting, where Eswatini would produce skills for the sole purpose of exporting for the short run period while it carries on working towards attaining SDG 8.

iv) The Economic Benefits of Vocational Education and Training in the Kingdom of Eswatini

v) Author - Gugulethu Mgabhi of the Eswatini Economic Policy Analysis and Research Centre

vi) Presenter – Gugulethu Mgabhi

An important contribution to economic growth of a country is the development of a skilled labour force. With that said, education - especially through the Technical and Vocational Education and Training (TVET) system - has been identified to play an important role in developing, honing, and providing those skills. TVET has been advocated for because it also helps curb youth unemployment as this kind of education system equips graduates with skills needed by industry. This study, therefore, determines the extent to which TVET graduates are using their skills for self-employment. It also assesses the rate at which TVET graduates are being absorbed by the formal labour market, as well as the rate of continuous studying after graduating from TVET institutions. Lastly, the study quantifies the value of investments of the Government of Eswatini and development partners in TVET in the country. The study finds that TVET contributes to employment (+1.7%) and self-employment creation.
(13.3%) of graduates suggesting that the preference of being employed by a second party is higher in comparison to self-employment. However, the rate of unemployment amongst the graduates still remains high (43.3%). Furthermore, the study finds that a very low rate (14%) of graduates continue with their studies after graduating at TVET colleges. Finally, using the Cost-Benefit ratio the study found that for every E1 spent on TVET, the income generation activities of TVET graduates generates E1.51 to the economy.

Recommendations

✓ The Government is advised to consider promoting self-employment amongst graduates through establishing links with financing agencies to increase the rate of self-employment and reduce unemployment.
✓ Institutions of higher learning should design programmes for sensitising TVET learners about learning opportunities available for skills upgrading.
✓ The Ministry of Education and Training should conduct national tracer studies at least once every three years to inform policy about the development of the sector.

3.3.5. Theme :5 Structural and Macroeconomic Reforms to Boost Competitiveness and Growth

i) An Insight into Community-Based Ecotourism in Eswatini: Theory versus Practice

ii) Author - Tamika Du-Pont of the Eswatini Economic Policy Analysis and Research Centre

iii) Presenter – Tamika Du-Pont

The study provides a baseline of the performance of Community-based Ecotourism (CBET) ventures in Eswatini using primary data from 186 face-face interviews administered across five CBET sites. Descriptive and thematic analysis were used to identify: the benefits of CBET accrued to host communities, challenges communities experience in providing goods and services to CBET ventures, and the factors preventing broad based participation. Frequencies of responses were used to determine the perceptions and attitudes of host communities towards CBET. The study finds that many of the promises of CBET have not been fully met in Eswatini. Economic benefits have not been widespread and remain minimal, with approximately 42 jobs in total. Participants receive an average monthly income of E1457.40 ± 933.80, an indication of high disparities in monetary incentives amongst participants. The study finds that CBET has been a catalyst for infrastructural development within rural landscapes and provides participants with additional intangible benefits such as a sense of empowerment and belonging. Poor infrastructural maintenance, inadequate marketing and declining tourist visitations are major threats to the sustainability of CBET ventures. Efforts to augment the performance of CBET in Eswatini should focus on investment in research and monitoring of present and potential new CBET ventures. The study recommends integrated and inclusive policies that will promote and allow for expanded local production in the tourism supply chain, partnerships between host
communities and industry experts, and enhance local capacities to reignite CBET within the tourism sector as a serious contender for economic growth.

Recommendations (reduce to maximum of 4)

✓ Invest in further monitoring and evaluation of CBET venture in Eswatini, in order to identify weaknesses, impacts and benefits. This data should inform plans to compensate for weaknesses, correct problems and adjust systems in order to improve the program.
✓ Conduct a feasibility study that will establish the suitability of site location, market readiness, skill sets that are present and lacking within the community, and establish possible limitations, pitfalls and risks of introducing a CBET project into host communities.
✓ Tourism policymakers must strengthen their dialogue with other ministries, the private sector and other relevant stakeholders to take advantage of the interlinkages that exist between different sectors. For example, the study finds that agriculture, and information and communication technology are impacted ministries.
✓ Formulate a national strategic plan to tackle the issue of national declining tourist visitations.
✓ CBET ventures should not be viewed as a panacea solution or end goal but rather should be identified as a catalyst to ignite additional income generating activities within rural landscapes.

iv) Quantifying Trade Risk in Southern African Customs Union (SACU) – Authors - Skhumbuzo Mlipha and Mmatlou Kalaba of the University of Eswatini

v) Presenter – Skhumbuzo Mlipha

The rationale of the study is based on the issue of low intra-block trade within the SACU market. Countries have struggled to reach the 35% target in the past 10 years despite literature suggests constraints being removed including the lack of administrative structures, tariff barriers, instability and border issues. This low intra-block trade is an issue as it defeats the sole purpose of why the trade deal was even signed in the first place. The study focuses on trade risk as it is known that trade exposes domestic markets to risk. The paper argues that when looking at trade it is best to look at different risks simultaneously rather than on a single risk event. This is because if one risk event is as a result of another risk event then this mean that an isolated analysis approach could be flawed. The study finds that Eswatini and Lesotho had the highest risk in perspective dimensions. Eswatini and Namibia had the first and second highest risk values respectively, across all the different types of composite risks indices. As expected, South Africa and Botswana had the lowest risk. The risk in the least developed members of the bloc (Lesotho and Eswatini) was constant over time while those for the more developed members (South Africa, Botswana and Namibia) decreased.

Recommendations
The study proposes that risks need to be addressed in SACU, because of the exposure that trade brings. Before that we need to understand the dynamics of risk and how it influences one another in order to inform appropriate strategies.

Furthermore, efforts to improve the resilience of smaller economies are critical particularly during events of shock. This calls for the development component within the SACU agenda to be used so as to ensure countries have safety nets. Furthermore, the study suggests that before being able to address risks, we need to understand the types, dynamics and vulnerabilities so we can implement appropriate strategies.

SACU needs effective risk mitigation policies and strategies

vi)  
**An Empirical Analysis of the Effects of External Shocks on Macro-Economic Indicators in Eswatini**

vii) **Author** - Bongani Dlamini of the Central Bank of Eswatini

viii) **Presenter** – Bongani Dlamini

The study focuses on South Africa as is Eswatini’s main trading partner, as is evident by the proportion of both imports (94.4%) and exports (50%) from and to South Africa respectively. Furthermore, it is important to note that Eswatini’s economy is affected by both monetary policy (e.g. through treasury bills) and through fiscal policy (e.g. SACU market) as 50% of the Eswatini budget comes from her share of SACU dividends. The study finds a high correlation (81%) between SA inflation and Eswatini’s inflation. The study also finds a high correlation between SACU receipts and Eswatini’s reserves (69%). A 63% correlation between the countries budget balance and SACU were also found. The granger causality tests find that Eswatini’s GDP gap does not change South Africa’s variables but South Africa’s variables affect Eswatini’s variables. The study also finds that the CPI in Eswatini is not determined by SACU receipts but rather RSA’s GDP determines Eswatini’s CPI and reserves. The study finds that RSA’s CPI impacts Eswatini’s domestic inflation. The study concludes that South Africa’s variables have an impact on Eswatini’s domestic variables and therefore these variables provide a good explanation for domestic variables. With South Africa’s GDP having an impact on almost all the domestic variables chosen. Based on these results, the study concludes that Eswatini needs to maximise on SACU receipts in the short term and this can be done through creating a SACU strategy as other SACU members have done. For example, both Botswana and SA have SACU strategies which have increased the trade between these two countries. South Africa exports mined diamonds to Botswana to be polished, after which Botswana exports these polished diamonds back to SA. Furthermore, the study suggests that SACU state policies, particularly Eswatini should ensure that policies complement each other and promote further trade between states.

**Recommendations**

- The study recommends that Eswatini needs to maximise on SACU receipts in the short term and this can be done through creating a SACU strategy as other SACU members have done.
A good example to explore is that both Botswana and SA have SACU strategies which have increased the trade between these two countries. South Africa exports mined diamonds to Botswana to be polished, after which Botswana exports these polished diamonds back to SA.

Furthermore, the study suggests that SACU state policies, particularly Eswatini should ensure that our policies complement each other and promote further trade between states.

3.3.6. Theme 6: Financial innovation and macroeconomic stability

i) Evaluating a Forecasting Model for Eswatini-held Bond Yield
Author – Luyandza Mamba of?

ii) Presenter – Luyandza Mamba
Eswatini’s relationship with the Republic of South Africa (RSA) dates back time immemorial owing to their pegged currencies, monetary policies and the Common Monetary Area (CMA). It is an open secret that Eswatini’s looming recession and financial burdens on the government need to be addressed through promptly identifying new revenue streams. This research took participation in the buying and selling of RSA bonds before maturity as a possible solution. This research employed the services of robust forecasting models with impeccable predictive accuracy under Artificial Intelligence (AI) inclusive of the Random Forest Regression (RFR), Gradient Boosting Regression (GBR) and Recurrent Neural Networks (RNN) through a Long Short-Term Memory (LSTM) to predict the yield of the R207, R208, and R2023 bonds for the next three days. The predictions were limited to only three days because of the volatile nature of financial data. All bond yields were predicted using the Johannesburg Inter-Bank Rate (Jibar), the exchange rate GBP-ZAR and the Consumer Price Index (CPI). The research concluded that the RFR attained the highest level of predictive accuracy and lowest values of RMSE, MAE and MAPE.

Recommendations

✓ The CBE is recommended to use the RFR predictions in trade simulation according to the expertise of the Financial Markets Department to ascertain how much they would make in Emalangeni terms by buying and selling bonds.
✓ Eswatini should actively participate in the secondary market for bonds as a new revenue stream.

iii) Financial Innovation and Money Demand in Eswatini
Authors – Zana Mabuza and Ntobeko Dlamini of the Central Bank of Eswatini

iv) Presenters – Zana Mabuza and Ntobeko Dlamini
This paper examines the effect of financial innovation on money demand in Eswatini using quarterly data spanning the period 1994q1-2018q4. Using the Autoregressive Distributed Lagged approach to bound testing, the paper determines the long run and short run dynamics. Two models that investigate the stability of the money demand equation for Eswatini are specified. These models segregate between the traditional money demand equation and another which considers the ratio of M2/M1 to capture the effect of financial innovation. The results from the study indicated that financial innovation has an effect on money demand only in the short run than in the long run. The effect of financial innovation is also seen in that the model without financial innovation showed instability, yet it is stable in the model with financial innovation.

**Recommendations**

- It will be important for the monetary policy authority to continue and monitor closely developments in financial innovation and their effects on the country’s monetary aggregates.

vi) *Testing Fiscal Dominance Hypothesis in a Structural VAR Specification for Eswatini*

vii) *Author* - Simiso Mkhonta

viii) *Presenter* - Simiso Masuku

The research aims to test the fiscal dominance hypothesis for Eswatini through a multivariate structural vector auto regression (SVAR) specification, covering the time period 1988 – 2018. The study employs the fiscal deficit (government revenue less expenditure transformed to reflect positive shocks as the deficit increases). The structural VAR looks at government liabilities (central bank advance to government and total advances to government) and finds that the fiscal deficit has a positive impact on central bank advance to government in the third period following the fiscal shock but insignificant on the total advances to government. There is a presence of fiscal dominance in the sense of government liabilities as central bank advance to Government. The study confirms the presence of the fiscal theory of price level determination.

**Recommendations.**

There is a need for the government to restructure its budget to avoid the Central Bank financing of the deficit, which could be problematic if perennial even though it could be seen to have no impact on the monetary base and inflation for now. The phenomenon could also bring doubt to the commitment of the Central Bank of Eswatini (CBE) to the fixed exchange rate system, which acts as an anchor to inflation.
The Effectiveness of Monetary Policy within the Financial Innovation Space: The Case of Eswatini

Author - Patrik Ndzinisa of the Central Bank of Eswatini
Presenter – Patrick Ndzinisa

The study examines the relationship between financial development and monetary policy to determine their interaction effects on the effectiveness of monetary policy on output and inflation. The GMM estimation results indicate that financial development in Eswatini increases the effectiveness of monetary policy on output, while reducing its effectiveness on inflation. However, the impact of financial development on monetary policy, as measured by the size of the coefficients of the interaction term between financial development and monetary policy, appears weak. Specifically, the study finds that a one standard deviation increase in the level of financial development corresponds to an increase of 4.6 percent and a reduction of 3.8 percent in the effectiveness of monetary policy on output and inflation respectively. Based on these results, the study recommends that the Central Bank should consider other monetary policy instruments such as the open market operations to supplement the interest rate, as a monetary policy tool, in order to contain inflationary pressures emanating from increases in money supply due to financial innovation. Basically, financial innovation increases money supply by increasing the velocity of money and thus affecting the demand for money function positively.

Recommendations

✓ Based on these results, the study recommends that the central bank should consider other monetary policy instruments such as the open market operations to supplement the interest rate, as a monetary policy tool, in order to contain inflationary pressures emanating from increases in money supply due to financial innovation. Basically, financial innovation increases money supply by increasing the velocity of money and thus affecting the demand for money function positively. The central bank should also consider the adoption of explicit inflation targeting as the dominant monetary policy regime to control inflation.

✓ The CBE should also consider the adoption of explicit inflation targeting as the dominant monetary policy regime to control inflation.
4. CONFERENCE PROCEEDINGS: DAY 3 (OCT 25TH 2019)

4.1. Plenary Session

4.1.1. Financial Inclusion in Eswatini: Repositioning for Resilience through Fintech, by Mr David Myeni, CEO for the Centre for Financial Inclusion (CFI)

The emergence and fast growth of Fintech in recent years is considered the only latest threat to banking. ‘Banking is necessary, banks are not’, pointed out Myeni, as he urged the country to consider investments into Fintech to deepen financial inclusion in Eswatini. Myeni stated that the World Bank asserted that financial inclusion could be an enabler for the achievement of at least seven out of the 17 Sustainable Development Goals (SDGs). Explaining the country’s financial inclusion landscape, the CEO for the Centre for Financial Inclusion (CFI) noted that Eswatini is now at about 87% in reaching its financial inclusion target; 90% and 81% have been financially served in urban and rural areas, respectively. He further elaborated that about 50% of the adult population use banking services which include, amongst others, payments and saving products and remittances while three in every four adults were using mobile money services. Financial inclusion is not about free money or just opening bank accounts, but ensuring that almost all of us can use the financial system to sustain our livelihoods. Myeni added that in order to stay relevant, the country needs to innovate, harness the digital revolution, and completely re-imagine the role of banks and the customer experience. Eswatini needs to get comfortable with new technology, be able to ideate and develop ideas into full products as well as transcend the physical and transactional barriers. Also in this presentation the CEO for the CFI argued that Eswatini needs to improve the value of SMEs so that they can graduate to the mainstream economy. A study presented by Myeni reveals that only 8% of businesses in Eswatini are big enough to be medium-sized enterprises. He cited low income as another issue that needs to be addressed as not more than 56% of the small businesses make a monthly income of more than E2,500. While the country deploys all efforts to grow the private sector, it should also be cognisant of the quality and sustainability of the businesses so that the country can develop high value SMEs that are creating decent jobs in the economy. When it comes to business management, the study also indicated that only 42% of the businesses keep up-to-date records while a majority (75%) are not registered. Government has to develop incentives to attract SMEs to want to register and operate in the formal economy so that these businesses can be nurtured and grown into fully-fledged multi-million Emalangeni enterprises. The CEO further mentioned that although farming is the main vocation for the rural population, only 23% have farming as the main source of income. A majority of the people in Eswatini rely on remittances and many suffer severe budgetary constraints and struggle to make ends meet, which comprises both individual consumers and small business. The key issues impeding the growth of SMEs in the Eswatini economy include low value enterprises, budget constraints, financial capability and financial products. Talking on the extent of financial inclusion in Eswatini, The CEO cited insurance as one of the major challenges in financial inclusion. According to the Eswatini Inclusion Landscape, about 72% of emaSwati do not have any insurance
products or services, hence the need for introduction of more insurance products. The study further highlights that in credit, about 12% borrow from the formal sector and 14% from the informal sector while 62% save through formal options. Myeni added that there are a number of barriers to accessing formal institutions, which include costs of transaction and transport, proximity, uncertain terms and awareness on remittances. There is also the issue of credit facilities which include, amongst other things, fear of credit, payslip or proof of income, door step barrier, slow speed of formal loans, and limited flexibility in repayment. Financial inclusion can only count for impact if it helps the consumers better overcome these obstacles and it is clear that a lot still needs to be done to cultivate a vibrant private sector led by SME growth.

4.1.2. Why Should Eswatini Care about Technology

4.1.3. Presenter - Mr Sakhile Dlamini of Google

Google-based tech expert Sakhile Dlamini contended that migrating to cloud computing could be a wise and cost effective investment if used correctly. He, however, said that it is not all information that needs to be stored there but people can categorise what they are more comfortable with keeping there. According to Sakhile, this is a much better and cost effective solution than trying to set up own infrastructure over many years. “Internationally even large banks like HSBC have items on Google Cloud, but before you invest look at what they offer in terms of services. All these have security features.” He emphasised that data privacy and protection is the selling point for those offering cloud computing services. For example, on Google Cloud, one cannot easily access it if one is not the encrypted owner of the space. Subscribers/users are at liberty to choose which security features they want to protect their data. While at times there have been losses suffered when computers are hacked, the security issues are improving by the day. He noted though that the enabling country infrastructure needs to be strong so that the system will not crash if Eswatini wants to adopt its own cloud systems. In terms of investments, Sakhile advises that the country must look at how much it is actually saving over time. He said infrastructure costs are quite high, noting that sometimes costs hide themselves and issues such as time investments are ignored.

4.1.4. Panel Session

FNB CEO, Dennis Mbingo, says young people should have space to reimagine their world, which calls for corporate types and political players to create that space. He said there is also an urgent need to rethink the way of doing business in all sectors in order to embrace and keep up with the speed of technological advancement and fully exploit its benefits. He noted that there is a need to reconfigure Eswatini’s education system and think seriously about how policy and laws align with developments happening in the technological sphere. There is a need to put money into the country’s infrastructure around new technologies. In other words, there is an opportunity to rethink entire businesses, business ecosystems, and entire sectors. As a bank, FNB is continuously looking at ways to improve their service to their customers and have adopted...
technology and innovation in line with the latest global best practices in the financial sector.

ESCCOM Director Lindiwe Dlamini reiterated that the issue of high costs of communication in the country is topical and key. She explained that the Commission has started a programme to reduce the cost of communication because a study conducted in 2016 showed that communications in Eswatini is very expensive. She pointed out that one of the key issues resulting in the issue not being addressed quickly is the fact that the current legislation tends to prohibit some of the initiatives that could be taken by the Commission to explore other ways of reducing the cost of communication. Dlamini said another issue that would not be easy to resolve is that Eswatini is a landlocked country and data comes from the sea from Europe, and the country has to transit from other countries, so as it passes through other jurisdictions there is a cost they have to incur.

One of the participants in the session suggested that Eswatini should consider sourcing internet using satellites, as it would incur less costs from exporting it from neighbouring countries. Reacting to a presentation by Sakhile Dlamini where he noted that data in Eswatini is quite expensive when compared to other countries, ESCCOM Director Lindiwe Dlamini said they were happy with the insight into issues around data and that the Commission would look into it, as it is a field of interest for them. “We work with data hence the interest in data pricing. As part of our mandate, we will not shy away from our beliefs. Now that we have been challenged, we will go back to the drawing board to discuss the needs of our people,” she said. Dlamini said they were happy with the overall outcome of this instalment of the Conference. “We are happy to have been part of the conference, especially because such platforms provide us the perfect opportunity to share our mandate with others stakeholders. We also get to hear views from people on how we can improve as an entity and for that we really appreciate this partnership,” she said.
5. CONCLUDING REMARKS AND POLICY NOTES

Investing in science, technology, and innovation is the way to go if Eswatini wants to achieve economic recovery and growth. It is not just an option for turning the economy around but also a must to remain competitive in the global business environment. Innovation is a catalyst for social and economic development and as such a precondition for progress. Given the need to increase economic activity and expand Eswatini’s gross domestic product (GDP), the GoE needs to take deliberate steps to facilitate the creation of a knowledge economy that can spur innovations in the different sectors of the economy. The traditional way of doing things no longer suffices to deliver the benefits contained in the country’s development vision. It is time for Eswatini to take bold initiatives that prioritise research and development (R&D) to achieve calculated means for growing the economy and improving the ease of doing business.

The EEC 2019 discussed in detail that Eswatini like other countries in the region is increasingly recognising the need for robust industrialisation strategies to drive development. The country has launched a number of strategies including the recent Kingdom of Eswatini Strategic Roadmap 2019-2022 which emphasises economic recovery. The strategy realises that investment in the manufacturing sector and information communication technology are necessary to ignite growth. At the heart of the strategy is the need to provide an enabling environment for the private sector to thrive and for SMEs to drive industrial growth. However, economic recovery has been rather slow in the country, with GDP recording marginal growth rates of 1.3% in 2016 and not growing beyond the 2% mark in the years that have followed. Not surprisingly, then, youth unemployment is also high at 47.4% (LFS, 2016). This has given rise to the need to find fresh ideas on how the country could benefit the youth and get all the dividends that come with a youth bulge. The ratification of a variety of economic strategies by African Union member states bares testimony to the urgency African leaders have placed on the need to industrialise and improve the wellbeing of the people, especially the youth. The African Continental Free Trade Agreement (AfCFTA), promises to support greater industrial development on the continent, whereas the SADC industrialisation strategy 2015-2063 emphasises the creation of pockets of industrial activities in the region. However, the continent including Eswatini faces many challenges, which are making it difficult for member states to kick-start industrialisation. The research produced through the EEC 2019 is conclusive that for Eswatini to overcome the challenges of reigniting industrial growth it needs to go back to basics: developing a good understanding of the productive structures, and how to nurture and expand these through deliberate and strategic engagement of Emaswati. However, a review of the country’s economic policies reveals that historically, very little investment has gone towards the development of a strong base of small medium enterprises (SMEs). While previous policy statements highlighted the importance of SMEs, not least the creation of the Small Enterprise Development Company (SEDCO) and other institutions to promote SMEs, in reality more effort tended to go towards attracting foreign direct investment (FDI) creating a vacuum in the economy of home-
grown companies that could spearhead the production of goods taking advantage of the trade agreements that the GoE has secured with many developed and developing economies. The over focus on external catalysts for growth such as FDIs and external sources of knowledge/technology has contributed to a decrease in internal research and development, which in turn has hampered the Eswatini’s internal potential for innovative industrial development. This is mainly because knowledge is a foundational component of the innovation process as it enables the acquisition and diffusion of technology. For innovation to take place as an organic process of Eswatini’s development process, emaSwati have to be involved in the research and development of different technological applications and innovations rather than always looking to the outside world to import technologies for adoption in our local economy.

The starting point; therefore, in harnessing the benefits that come with the fourth industrial revolution is to embrace the knowledge economy and become smart citizens, smart businesses, and a smart government. The GoE needs to invest in creating Centres of Excellence that can create a systemic approach to industrial development based on R&D that is anchored on science, technology, and innovation. The value of the R&D will come as a direct outcome of the cohesion among the private sector industry operators, the government, think tanks, universities, and international development partners.

While governments often shy away from picking winners, evidence suggests that the countries that prioritised science and technology are now reaping the largest rewards. Moreover, it is not just science and technology that needs prioritisation, equally important is the identification of niche products that will enable Eswatini to make regional, continental, and global impacts. Examples include, but are not limited to,

(i) the manufacture of basic goods and services, with a focus on assembling technologies that are in high demand amongst the youth;
(ii) the introduction of new cash crops such as industrial hemp for the manufacture of industrial fibre and fibre derivatives, cannabis for medicinal and medicinal research purposes, and cassava for making flour;
(iii) skills and entrepreneurial development through the institution of a nationwide capacity building and professional development programme; and
(iv) providing bold incentives to local businesses that will manufacture goods and services, including research and development support and tax breaks.

Growing the economy equally demands nationwide support for goods and services made within Eswatini’s borders. Information and communication technologies (ICTs) have since made it possible for policymakers to expand their policy toolkits and to go beyond the known basket of policy strategies used to stimulate local economic development. This includes, but is not limited to, leveraging artificial intelligence, big data, and the internet of things to gain greater insights into how to better manage Eswatini’s finite resources to satisfy the infinite needs and wants of emaSwati.

Opportunities are plentiful for the country to use ICTs to deploy strategies that will encourage local Small and Medium Enterprises (SMEs) - including farmers, handcrafters, and the youth - to take advantage of the market that the economy has to
offer, which also includes sweating out the value of the country’s international trade agreements through export-led growth.

Undoubtedly, the Eswatini Economic Conference 2019 provided invaluable insights on viable avenues for unlocking Eswatini’s industrial capabilities and establishing new sectors of the economy for job creation and inclusive growth. The National Development Strategy of the Kingdom of Eswatini aims to turn the country into a vibrant industrial-led economy within a generation. To attain this goal will require the structural transformation of the Eswatini economy, and it begins with knowledge based economy driven by science, technology, and innovation.

5.1 Partners relish EEC 2019 platform

The EEC 2019 partners were:

**Diamond:** Eswatini Revenue Authority (SRA)

**Platinum:** FNB Eswatini, RSTP, UNDP Accelerator Labs

**Bronze:** Eswatini Communications Commission (ESCCOM)

What the partners had to say:

5.1.1 First National Bank (FNB) Eswatini: Chief Executive Officer Dennis Mbingo

“We are very happy, especially because this creates a platform for many players in government and in the private sector to drive conversations that the country needs to have about its future.

The reality is that our traditional industries and old school employment creators have been disrupted so we have to agree on what Eswatini needs to look like in 20 years and a lot of that depends on conversations like that. We are very supportive of this initiative and look forward to this Conference continuing well into the future.”

5.1.2 Royal Science and Technology Park (RSTP): Head of Academics Mbuso Dlamini

“As RSTP we would like to express gratitude to the hosts of the Eswatini Economic Conference 2019 for allowing us to be part of this very important event. We are still a growing ‘child’ hence we do treasure all the contributions and recommendations received throughout the duration of the Conference. The plenary sessions were eye opening and we believe all this information will help us deliver on our mandate. We now have Memoranda of Understanding (MoUs) with the hosts and as RSTP, we are looking forward to more of such gatherings.”

5.1.3 Eswatini Revenue Authority (SRA): Director Research, Strategy & Statistics Edward Groening

“As SRA we are very happy with the attendance recorded during the Conference. On the first and second day, the numbers were overwhelming. The content here was relevant and talked to the challenges faced by the country. The sessions were very informative and as SRA, we loved the opportunity to be a partner in this Conference. Through the sessions, we got a lot of exposure and feedback on how the public, taxpayers and stakeholders understand tax issues. We are in the
process of formulating our strategy so the inputs here were very helpful to us and some of it will hopefully be incorporated into the strategy. So for us overall, our participation was effective and we are grateful to the hosts for this opportunity.”

5.1.4 United Nations Development Programme (UNDP): Head of Exploration – Accelerator Lab Wakhile Mkhonta

“As UNDP, we would like to congratulate the organisers of the 2019 Eswatini Economic Conference. Its theme as well as the discussions undertaken were pertinent to the issues that are a primary concern to UNDP today as it seeks to achieve greater development impact in pursuit of the SDGs. Through the UNDP workshop, we were able to engage a number of potential stakeholders for the new offering to the country in the form of the UNDP Eswatini Accelerator Lab. We have received a number of expressions of interest to work with us as we launch this important initiative. We are also keen to see the recommendations emanating from such an important conference as the Eswatini Economic Conference, particularly, as they pertain to economic recovery, as we envisage a role for UNDP as a partner in implementing these recommendations going forward”.

5.2 DELEGATES’ COMMENTS:

Young people from high school and tertiary institutions attended in great numbers and they were very excited to be receiving valuable insights on the various topics discussed. Interviewed on their views on the Conference, the students said they were happy to be part of such an important event, especially because the presenters talked to issues of the economy, which has been a major challenge for the country.

This is what they had to say:

Nsindiso Mkhabela (Form 4 pupil at Velebantfu High School)

“As an aspiring businessman, I learnt a lot during the Conference. The information shared by some of the speakers really surprised me and I believe with the knowledge I have gained I will do well in my aspirations to be a businessman.”

Nelisa Mamba (Form 4 pupil at Velebantfu High School)

“The presentation on Indigenous Knowledge by Dr Nokuthula Hlabangane from UNISA really sparked my interest, as I know that the knowledge I receive at home and at school is all important and that one needs to find a balance between the two. I was also fascinated by the topic on Machine Learning, which I believe will help me as I prepare and pursue my aspirations to be a doctor.”

Sipho setfu Dlamini (Agriculture and Bio-Systems Engineering student)

“I was really surprised to learn of the gap between developed countries and Eswatini during one of the presentations. From this, I noted that it would take a lot of effort from us to reach the levels they are at, in terms of development. I also learnt that we still have a long way to go to close that gap and that we, in the process, have to tackle it in a well-planned manner because there will be
serious repercussions if we use shortcuts. We need visionaries in the country so that we can go about addressing these issues the right way.”

Siciniseko Sithole (Agriculture Economics and Agribusiness Management - UNESWA)

“It is important to involve the youth when dealing with issues of the economy because we are the people who will address these issues in future, hence I am happy that we have been invited to be part of this important Conference. There were a number of topics that caught my attention but above everything else, there is the issue of artificial intelligence (AI) which needs to be implemented fully. Having attended this workshop on AI, I now know where to focus on and how to implement what I have learnt.”

Theophilus Dlamini (Agriculture Economics - University of Pretoria)

"The Conference was good and the presentations very insightful. However, the time allocation during the sessions was not well aligned in that it limited one to a single session when we could have switched to get more information on other topics. Another challenge, also because of time, was that we could not critique the academic papers presented yet this is essential, especially because we need to improve the number of Eswatini research papers published in reviewed journals.”

Temlandvo Maziya (Agricultural Economics and Agribusiness Management graduate - UNESWA)

“The Economic Conference is very insightful and I am happy to have been part of it. My highlight was the academic paper presentation on the Performance of Retail Micro, Small and Medium Enterprises. During the session, I learnt how MSMEs could contribute to economic growth. I also got to learn how tapping into the manufacturing sector could improve businesses as proven by the study on the Small Scale Enterprise Guarantee Loan Guarantee Scheme.

I also feel that government should extend access to the scheme from commercial banks to other financial services institutions.”

Sakhile Nsibandze (BSc in Animal Science)

“The EEC has exposed us to tools that we, as young people and aspiring entrepreneurs, can use for start-up businesses. In addition, the presentations on tax by the SRA Commissioner General were eye opening. There was also another contribution by Professor Patricia Joubert where she encouraged the Royal Science and Technology Park to build up on its competitiveness.

Nevertheless, on top of it all, I am very grateful to the organisers for inviting the youth to come and be part of this very important event. We all know that the youth are the drivers of the economy. Also, our opinions are very important because we are more dynamic than the older generation.”