

Enhancing Industrialisation and Modernisation in Universities in Zimbabwe

By

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Abstract

This paper outlines cardinal facets of industrialisation and modernisation which the Government of Zimbabwe launched as a higher education strategy for national development through institutions of higher learning. The paper recommends several strategies universities in Zimbabwe can use to advance industrialisation and modernisation. One of the key strategies is that universities should embrace other stakeholders that include schools and colleges as well as the private sector. As part of this process, local universities are also expected to modernise themselves by providing quality and relevant education.

Keywords: *Education 5.0; Innovation; Industrialisation; modernization higher education*

Introduction

In 2019, the Ministry of *Higher and Tertiary Education, Science and Technology Development* (MHTESTD) pronounced a new philosophy of higher education coined Education 5.0. In this new philosophy, the MHTESTD expected institutions of higher education especially universities to extend their traditional functions by embracing innovation and industrialisation. Hence, in addition to teaching, research, and community, higher education institutions are now expected to put more emphasis on innovation and industrialisation to facilitate the production of goods and services. To spearhead the implementation of this new philosophy, the Zimbabwe University Vice Chancellors Association (ZUVCA) established a *Task Force on Transformation of Higher Education for Industrialisation and Modernisation*. This paper seeks to further advance the operationalization of this pragmatic strategy to accelerate the development and modernisation of the country. Specifically, the paper recommends several strategies universities in Zimbabwe can use to advance industrialisation and modernisation. The paper further urges universities to widen the scope of industrialisation and modernisation by engaging more stakeholders, especially schools and colleges given the multifaceted nature of the two related processes. Local universities are called upon to establish industrialisation and modernisation interdisciplinary teams as a strategy to further promote this noble agenda at both micro and macro levels. Lastly, the paper urges universities to implement the modernisation of the higher education system in Zimbabwe whereby universities are encouraged to enhance the quality and relevance of higher education consistent with the 21st-century global expectations.

Higher education policy driving industrialisation and modernisation

Industrialisation and modernisation are premised on the Government of Zimbabwe's higher education policy Education 5.0. This policy puts emphasis on innovation and industrialisation. The first three are the traditional functions of universities which are teaching, research, and community service. The remaining new functions of universities that were added by the Zimbabwean Government were innovation and industrialisation. The innovation component expects universities to be innovative and generate inventions

that support industries. It is hoped that the innovations would facilitate industrialisation in the country. The product of these innovations would be the production of goods and services. As a process toward innovation and industrialisation, universities are expected to establish innovation hubs and industrial parks. Innovation hubs or centres seek to develop universities' innovation skills in various ways such as developing new products which can compete in new markets, producing cheaper goods, promoting value addition of raw materials, or developing new tools to improve service delivery. Industrial parks are places established and organised to promote the setting up of industries within a university. Hence, industrial parks are offices and functional industries such as bakeries, soap factories, and timber processing plants. Education 5.0, therefore, expects universities to establish their productive industries. The government hopes that the industrialisation of the country would lead to the development and modernisation of the country.

Concept of industrialisation

The industry refers to the production or processing of goods while industrialisation is a process whereby more and more industries are being established. During the process, an economy of a country is transformed from primary industries to the manufacturing of goods and provision of services. The process should take place on a large scale. As the process takes place, mechanised mass production of goods usually and gradually replaces manual labor. As this takes place, assembly lines replace craftsmen. Key elements of industrialisation include the application of technological innovation to solve problems, more efficient division of labour, and economic growth. Given the important role of innovation and technology in the industrialisation process, the Zimbabwe Government expects colleges and universities to play a key role in the country's industrialisation process.

Before the role of higher education institutions in the industrialisation process is delineated, I outline four major types of industries as follows:

- i. Primary industries (they extract raw materials from the environment, for example, from land and rivers).

- ii. Secondary industries (sometimes referred to as manufacturing industry- they produce processed goods such as producing sugar from sugar cane).
- iii. Tertiary industries (sometimes referred to as services industry- they provide services to other industries and people in general; e.g., tourism).
- iv. Quaternary industries: They use modern technology in research and development to train and provide information to other industries. Consultancy firms and information and communication technologies belong to this group of industries.

Universities in Zimbabwe are therefore expected to play a key role in the above industries, especially in the manufacturing industry sector which involves value addition. They should come up with industries that manufacture goods. This is why the MHTESTD puts emphasis on industrial hubs. Without industrialisation, Zimbabwe will continue to be poor as it will depend on exporting raw materials which are generally cheap on the global market. Focusing on exporting raw materials is the basis for the world-systems theory which explains the exploitation of developing or periphery countries by the developed or core countries (Sorinel, 2010). As part of the industrialisation process, new inventions and improved transportation are needed and universities are expected to provide the necessary innovation through research. The process of industrialisation is part of modernisation. A country cannot modernise and become a modern state without industries.

Elements of industrialisation and the role of universities

In this section, cardinal elements of industrialisation are delineated and then roles universities should play are suggested for each identified element.

- i. Industrialisation involves producing goods using machines - universities should design and produce these machines and then produce goods.
- ii. Most of the workforce in an industrialised country work in manufacturing – universities should be at the centre of production through their industrial hubs. For example, departments of production engineering in universities must play a key role in manufacturing.

- iii. Industrialised countries have large markets, marketing scholars in universities should research to find out how markets for emerging industries can be expanded.
- iv. Industrialisation is associated with accelerated high-tech innovations – Research and Innovation Centres in universities should spearhead accelerated innovation programmes.
- v. Industrialisation is accompanied by a development in countrywide transportation network – through research, university departments such as Geography Departments should advise the government on how the transport system in the country could be modernised.
- vi. Increased accumulation of capital for investment is a major feature of industrialisation –Economics Departments in universities should advise the government on how investment could be increased.
- vii. Industrialisation is usually positively associated with urbanization and a gradual increase in the number of large cities and conurbations- Departments of Rural and Urban Planning could assist in designing modern cities of the 21st century for the country.

The foregoing shows that all university departments have a role to play in the industrialisation process. In the next section, I delineate how universities can plan for industrialisation.

Recommended strategies to enhance the implementation of industrialisation

Industrialisation does not just happen. It is a well-thought-out process and takes time. A book by Bhagwati and Desai (1970) titled “India: Planning for Industrialisation” clearly shows that thoughtful planning is necessary since industrialisation planning requires a multi-sectoral approach. Therefore, universities in Zimbabwe should broaden their conceptualization of industrialisation if the initiative is to succeed. Guided by the MHTESTD’s strategic plan which stresses innovation and industrialisation, universities should focus on priority areas that are delineated in this section:

- i. Universities should incorporate innovation and industrialisation agenda into their strategic plans whereby each Faculty has a clear work plan on how they will implement the innovation and industrialisation agenda.

- ii. An inter-faculty coordinating team should be established in each university to plan how research, innovation, and industrialisation are to be carried out. This will also include the teaching of innovation and industrialisation. For example, in the European Union, the University of Danube is offering a Master of Education degree in Research and Innovation. Universities cannot just implement innovation and industrialisation without some basic conceptual and theoretical understanding of these two terms. The importance of theory is stressed by Kurt Lewin, a renowned social psychologist who famously surmised that “There's nothing so practical as a good theory”, mainly because a good theory guides effective action (Billig, 2015:1). This is critical in teaching the theoretical underpinnings of innovation. In fact, in some disciplines such as commerce innovation is taught. It helps learners and instructors to have a deeper understanding of related concepts such as imitative innovation and innovative imitation (Huang, Chou & Lee, 2010; Segerstrom, 1991).
- iii. For innovation and industrialisation to succeed, universities must provide high-quality and relevant higher education. Universities must therefore continuously assess the quality and relevance of their education. Concerning quality, universities in Zimbabwe can assess the quality of their education by using the African Standards and Guidelines for Quality Assurance in Higher Education (HAQAA Initiative. (2019). This is important because only quality education can bring about successful research and innovation for industrialisation.
- iv. Universities in Zimbabwe should re-examine the adequacy of their curricula content for their research methods courses, especially at Masters Level where most institutions offer one research methods course. This is critical because in other countries, for example, the USA, graduate students usually take a minimum of 3 courses in the research methods component. The three separate courses usually focus on quantitative research methods, qualitative research methods, and generic research methodology courses. My view is that one course at the Masters Level covering all three components of research methods is inadequate. This is

important because the key to innovation in research and innovation is critical for industrialisation.

- v. Universities must enhance meaningful academia-public-private engagement as emphasised by the MHTESTD in its 2019-2023 strategic plan. Universities, businesses, and the public sector must be partners in innovation and industrialisation. Both the private sector and public sector must be aware of this new dimension and national priority.
- vi. While Science, technology, engineering, and mathematics (STEM) subjects are key to industrialisation, all disciplines must be fully involved in innovation and industrialisation. Most importantly, humanities and social sciences must play a key role in bringing about a conducive cultural environment for modernisation since modernisation is not just about industrialisation but a paradigm shift from traditionalism. Additionally, social sciences are critical for research and development as part of the quaternary industry.
- vii. Universities and other educational institutions including schools must work together with government departments to promote the new education thrust on industrialisation since industrialisation calls for collective effort and requires inter-sectoral linkages. Universities must therefore promote the concept of industrialisation to all learners and practitioners from school level to university.

Concept of modernisation and proposed implementation strategy

Modernisation is often viewed as the transformation from a traditional, rural, agriculture-based society to an urbanised, industrialised, and secular society. The following features are associated with modernisation:

- i. Modernised society is industrialised.

- ii. Modernised society is characterised by cultural, social, political, economic, and technological advancement.
- iii. It involves explaining and predicting events, processes, and phenomena based on scientific and technological knowledge.
- iv. Cultural transformation is a key component of modernisation whereby society gives up old ways and traditions and adopts contemporary ones.
- v. Democratic associations, increasing literacy, and a high level of urbanization are cardinal elements of modernisation.
- vi. Mass education through mass communication is an important facet of modernisation.
- vii. Modernisation is consistent with good governance which is associated with sharing of civic, political, and social rights, and resources.
- viii. Modernisation is a developmental and continuous process.

The foregoing shows that modernisation is complex and multifaceted. While the modernisation process can take a long time, it can also be accelerated through comprehensive planning. The MHTESTD's focus on innovation and industrialisation is largely aimed at accelerating modernisation through innovation and industrialisation in colleges and universities.

Antecedents of modernisation

Modernisation scholars have argued that several preconditions or antecedents should be in place for modernisation to take place. The most common explanation is based on the western school of thought that says that several impediments hamper development in developing countries and these obstacles are largely internal. In this regard, third-world countries are undeveloped because they have negative cultural values and practices that inhibit development from taking place. For example, Parsons (1964) was especially critical of the traditional values of developing countries in Africa, Asia, and Latin America. His main argument was that these countries were too attached to traditional practices, values, rituals, and institutions, which Parsons argued were a barrier to development and modernisation.

Parsons (1964) further maintained that traditional values that acted as barriers to development included particularism – where people are given jobs based on personal or family relationships. For example, a Chief Executive Officer of a company may give his relative a job rather than employing someone competent or talented to do the job. In contrast, Parsons believed that western cultural values which promoted competition and economic growth were more developmental. Another developmental value cited by Parsons is universalism which involves applying the same standards to everyone, and judging everyone according to the same standards. This is the opposite of particularism, where people are judged differently based on their relationship to the person doing the assessment.

Achieved status and meritocracy is another progressive value that is associated with modernity where people can be successful based on their efforts. In a truly meritocratic society, the most talented and hardworking should rise to the top, and these should be the best people to drive economic and social development.

Morocco and Moracco (1978) writing in the late 1970s, observed contestations among scholars concerning modernisation or modernity. For example, they noted that religious leaders condemn the rise of secularization while traditionalists warn of problems that will follow the weakening of family ties and the disappearance of social structures. For modernity to take place, political scientists point to the need for governments to be efficient and responsible to the people. Moracco and Moracco further observed that as part of modernisation, psychologists claim that changes must take place within the individual before societies can change. The two scholars also gave great attention to the formation of personalities high in achievement motivation and low in authoritarianism which they saw as a barrier to modernisation.

Given the various explanations and contestations, universities in Zimbabwe need to examine various explanations and theories for modernisation, and then come up with possible models relevant to Zimbabwe. In addition, several explanations for development and underdevelopment should be included in the university curriculum. This will help universities in Zimbabwe identify best practices for managing modernisation in the country.

Role of education in modernisation

Since modernisation is about transforming society, it means that all forms of education should play a role in the transformation process. The change of values starts at the primary and secondary school levels. This means that the whole education system, from preschool to university must play a role. One strategy is to put emphasis on science at all education levels. While tradition is very important, it should be noted that too much emphasis on tradition can work against modernisation. It may take time to modernise if the country's value systems are fixated on traditionalism, for example, beliefs are *juju* to enhance business performance instead of investing in modern business management strategies.

Those who believe in traditionalism are more conservative while advocates of modernism are more amenable to change. Modernists are therefore more open to accepting new ways of life. They are also apt to adapt to new social trends. Traditionalists, however, show high regard for the old ways of doing things including staunch beliefs in traditional religious values. Given these contradictions, Zimbabwe cannot just modernise without tackling traditionalism. While progressive ideas in traditionalism should be upheld, the education system must also tackle traditional practices that might hamper modernisation. For example, while respecting ancestors is important as part of the tradition, hard work should also be encouraged rather than focusing on traditional charms as a means to success. Table 1 summarises the expected roles of education in modernisation.

Table 1: Roles of education in modernisation and proposed educational institutions to play the respective roles.

Roles of education in modernisation	Proposed Institutions to play the roles
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Eradicating mass illiteracy	Primary and secondary schools
Social and political socialization.	Schools, colleges, and universities
Promoting emotional and national integration	Schools, colleges, and universities
Promoting science and technology education	Schools, colleges, and universities
Promoting equal educational opportunities	Schools, colleges, and universities
Compulsory primary education	Primary schools
Nurturing positive attitudes and values toward the development	Schools, colleges, and universities
Expanding social education for good citizenship	Primary and secondary schools
Providing education for international understanding	Schools, colleges, and universities
Education for democratic values	Schools, colleges, and universities
Research and innovation	Colleges and universities

Based on the foregoing analysis in Table 1, it is the proposition of this paper that all sectors of education should play a role in the country's modernisation. The analysis clearly shows that primary and secondary schools have a key role to play. The same applies to colleges and universities, especially in the area of research and innovation. One area Zimbabwe's education system has tended to ignore is social, economic, and political education for nation-building. For example, high school students must study government and civics as well as basic public policy-making as part of education for good citizenship. Again, this should not be done in a partisan way. Modernised countries such as the UK and USA teach these basic topics at the school level. It helps the young people to love their country irrespective of political affiliation. It also helps to build active and responsible citizenry which is required in a modernised society.

Modernisation of higher education is a cardinal facet of the modernisation process

In the literature of higher education, there is an aspect of modernisation that is specific to higher education focusing on universities. This is a new concept that has gained momentum in universities, especially in the European Union. Universities in Zimbabwe should not be left behind in this new thrust. Based on benchmarking with the European Union's (2011) Agenda for the Modernisation of Higher Education –2020 Strategy, universities in Zimbabwe should focus on the following:

1. Increasing access to higher education. In the context of Zimbabwe, this is being achieved through the massification of higher education. However, increasing numbers of university graduates alone are not enough. The quality of education must also become a priority, which takes us to the next focus area in the modernisation of higher education.
2. Improving the quality and relevance of education programmes as a strategy to increase graduate employability and to meet the demand for people with high-end skills. Universities in Zimbabwe must ensure that they provide quality and relevant education. This point is also emphasised in the MHTESTD's strategic plan. In this regard, universities in Zimbabwe should produce graduates with 21st-century skills for the 21st-century job market.
3. Universities in Zimbabwe must ensure that each graduate, whatever their discipline –has a good mix of sector-specific and cross-cutting skills to enable them to thrive in a labour market that now calls for multi-skilling.
4. As part of higher education modernisation, higher education institutions are expected to modernise their governance and funding models to enhance their performance. To achieve this expectation, Zimbabwean universities can refer to standards on good university governance which are outlined in the *African Standards and Guidelines for Quality Assurance (ASG-QA) in Higher Education* (HAAQA Initiative, 2019).
5. Modernisation of higher education calls for colleges and universities to play a major role in supporting sustainable growth, in their regions and beyond. This resonates

well with the MHTESTD's Education 5.0 delineated earlier. Hence, innovation and industrialisation efforts in colleges and universities should be scaled up.

Summary and conclusion

Research, innovation, Industrialisation, and modernisation are closely related concepts. In short, research in universities should be the catalyst for innovation and industrialisation that produce goods and services. As outlined in this paper, the industrialisation process must encompass all types of industries especially manufacturing with an emphasis on value addition to reduce exploitation of the country by the developed world. Universities in Zimbabwe should be catalysts for industrialisation and modernisation. However, they cannot do it alone. They should embrace other stakeholders that include schools and colleges as well as the private sector and government departments. As part of this process, local universities are also expected to modernise themselves by providing quality and relevant education. Local universities should be learning organizations (Senge, 1990) and scale up the higher education modernisation process by benchmarking their work against models of advanced organisations such as the EU's 2020 higher education modernisation strategy. Additionally, universities in Zimbabwe must set up professional learning communities (DuFour & Eaker, 1998) that study and research to find better strategies and models of accelerating industrialisation and modernisation so that the country can catch up with other countries in the region and beyond.

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