

## Opportunities and challenges in implementing the Education 5.0 policy in tertiary institutions in Zimbabwe.

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### ABSTRACT

There is a recent growing interest among scholars, academics and policymakers to find a lasting intervention to resuscitate the Zimbabwean economy, which has been under-performing for the past three decades. The paper assesses the opportunities and challenges in implementing the recently introduced Education 5.0 policy drawing upon a case study data from the two selected tertiary institutions in Zimbabwe. The study is a qualitative research of an interpretive philosophical dimension. It generates data from conveniently selected research participants. The exploratory research design informs the data collection and the analysis that uses the thematic approach. Face-to-face in-depth interviews and document analysis were employed to generate data. The findings of this study reveal that the Education 5.0 policy has productive opportunities which immensely contributed to national economic development. Some of the productive opportunities include employment creation, increased trade, and exploitation of mineral resources, economic development and poverty alleviation. The findings also revealed some of the primary challenges of implementing the Education 5.0 policy that include lack of adequate government funding and support resistance to change, policy inconsistency and poor orientation of the policy. The study recommended that the government of Zimbabwe should conduct regular workshops to raise awareness of the Education 5.0 policy framework as well as maximizing funding efforts to ensure effective implementation in tertiary institutions in Zimbabwe.

**Key words:** Education 5.0 policy; Innovation; Industrialisation; Policymakers; Zimbabwe

## INTRODUCTION

There is a recent growing interest among scholars, academics and policymakers to find a lasting intervention to resuscitate emerging economies in Africa through transformative educational reforms. Such reforms could have a burgeoning effect on human capital skills development that indirectly promote the growth of technological innovation and spur economic performance (Wang et al., 2022; Agasisti & Bertolotti, 2022; Maneejuk and Yamaka, 2021; Hussaini, 2020; Du & Yang 2014). This means that higher education in developing and developed countries needs to implement appropriate education reform-models or policies, which could mitigate regressive economic performance.

It has also been noted in Pakistan that there is a relationship between economic growth and higher education. Batool, et al. (2018) have confirmed that there is a positive relationship between higher education and positive impact on economic growth in the country. Similar findings were from China where a study found this relationship between higher education and economic growth. According to Dong, et al. (2018) higher education in China was responsible for the attraction of foreign investment, promotion of innovation and improvement of the quality of human capital skills. In the same vein Education 5.0 policy in Zimbabwe if well implemented is thought to inevitably offer opportunities for economic development.

In South African, higher education is regarded as an essential tool in that it enhances the skills and knowledge base of learners. It thus stirs national development by drawing from the effective research and teaching (Chankseliani et al., 2021). According to South Africa's Department of Higher Education Training (2021) an estimation of research output units confirmed that 10 out of 26 public universities have produced 82% research output units. Despite this significant achievement, South Africa still experiences a high rate of graduate unemployment, which has been a cause for concern. This is despite the positive financial support to the higher education at national level (Mncayi, 2016).

Upon attainment of political independence in Zimbabwe in April 1980, the Government introduced the Education-for-all policy reform (EFA). This policy led Zimbabwe to become a regional leader in education, which earned it international reputation (Garwe & Thondhlana, 2019). The EFA policy however failed to meet its quota. On realising that gap the Nziramasanga Commission of Inquiry into Education and Technology (CIET) was mandated to conduct a research into the situation in 1999. The CIET (1999) noted that the colonial

education system had been very restrictive and stifling, with graduates being trained to get into prescribed jobs upon graduation. Meanwhile Julius Nyerere's Ujamaa philosophy seemed to point out that students in the colonial education period were only being trained to advance the interests of the colonial state (Nyerere, 1968). Such an education was deemed to solely instil individualistic values, which did not guarantee community engagement, innovation and industrialisation in Tanzania. In the same vein, the Higher Education (HE) in Zimbabwe during the colonial regime was coded the Education 3.0 since it was supported by the three pillars, namely; teaching, research and community engagement. In Zimbabwe, like elsewhere, the three pillars were also found to be wanting in respect of delivery of relevant education service to society. Professor Amon Murwira (2019), the current Minister of Higher and Tertiary Education, Innovation, Science and Technology Development (MTESTD) underscored that "Education 3.0 was designed to just feed employees into existing colonial industries."

Professor Tagwira, the Permanent Secretary of the MTESTD in Zimbabwe stressed the need to embrace the new policy by shifting from 3.0 to 5.0 in order to achieve competitiveness, industrialisation and modernisation. The introduction of Education 5.0 in Zimbabwe was a response to the country's educational needs that of producing capable learners. The Zimbabwean Minister of Higher and Tertiary Education, Professor A. Murwira's heritage-based ideology encourages students to apply their knowledge to the local environment in order to develop meaningful goods and services (Ministry of Higher and Tertiary Education, Science and Technology Development, 2018). According to Loesberg (2021), technology can be a huge help in adapting education to specific needs.

The new policy advocated for some re-engineering or restructuring of the whole education system. Advancement in technology, globalisation, and free-market oriented higher education policies would be drivers to influence an education that ensures opportunities for learners (Murwira, 2019). It is important, therefore, that Zimbabwe's education policy models be reinvigorated, given that today's society considers a decent employment to be that attached to a university degree (World Bank, 2016). The university curricula in Zimbabwe should be underpinned on a realignment between skills and knowledge on one hand, and the needs of industry and development on the other. This state of affairs has, for decades, generated much interest among researchers, policymakers and practitioners to consider higher education as a powerful tool for personal economic development as well as national transformation in recent times.

In recent times, higher education has positively been given international recognition for being key to sustainable transformation. It has been enshrined in the developmental agendas of many countries and seen as a tool for the achievement of sustainable development (UNESCO, 2020; Figueiró and Raufflet, 2015). Thus, education at any level is regarded as an integral part of development that improves the quality of life and reduces poverty. Zimbabwe's unemployment rate is, however, presumed as one of the highest in the world (Future Africa Forum, 2023), being 70-95% in 2008. Mawere (2014) estimated the rate to have remained above 70% by year 2022. In the context of the unemployment problem in Zimbabwe; higher education remains a catalytic tool that could improve job creation opportunities for the country. This paper, thus, focuses mainly on the opportunities and challenges in implementing the Education 5.0 policy in the selected tertiary institutions in Zimbabwe.

In light of the above, Education 5.0 policy aims to make Zimbabwe competitive, modern, and industrialised (Jonathan 2019). According to Jonathan (2019), Education 5.0 policy should appropriately educate Zimbabwe for the demands of the fourth industrial revolution presently taking place. Zimbabwe's education, according to Murwira (2019), is in need of new methods for gathering minds and utilising potential to market the country as a top educational destination. Thus, the implementation of such a pivotal policy should be offered the necessary ingredients to realise maximum opportunities. Education 5.0 has a long list of intended outcomes if it is successfully implemented. Even more crucial is the fact that the unemployment rate must be reduced (Muzira, 2018). Most of society's and the nation's challenges can be solved by a well-designed education system (Murwira 2019). The country's higher education system must be reformed to fulfil the country's present development needs, as a result of this.

Emphasising the crucial role the Education 5.0 policy play in tertiary institutions and the nation's economic development the study seeks to address the implementation opportunities and challenges of the policy focusing of the following research objectives:

To examine the opportunities and challenges in the implementation of the Education 5.0 policy in selected two tertiary institutions in Zimbabwe.

This paper is structured as follows. The first section starts by introducing the concept under investigation. The second section reviews literature that is pertinent to opportunities and challenges in the implementation of education policies in Zimbabwe's tertiary institutions.

The section that follows describes the methodology, and the data collection and analysis procedures so as to address the research objective in this study. The study then discusses the results, gives a summary, the limitations and recommendations.

## **LITERATURE REVIEW**

This section presents the literature related to Education 5.0 in the context of opportunities and challenges.

### **Conceptualisation of Education 5.0**

Education 5.0 is a transformative education policy framework which is perceived as empowering the students or learners with knowledge, skills and attitudes and enhanced by the development of modern education environments (Samiha et al. 2022). Education 5.0's focus is on research, teaching, community service, innovation and industrialisation (Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development, 2018). The 5.0 framework intends to avail holistic learning in the tertiary institutions so that students gain maximum benefit from the modern technological tools in their localities.

The full panoply of the 5.0 framework acknowledges that the learner is at the centre of all the learning activities. It is considered that learning is connected to the learner, demonstrated by the learner and driven by the learner (University Teknologi Mara, 2019). Under the same score, the success of Education 5.0 is underpinned by a dynamic technological learning environment, which surrounds the learner and encourages the learner to apply creative thinking in solving problems in society (Melluso et al., 2020). It is interesting to note that in Zimbabwe, the Education 5.0 policy is responsible for the coherent hands-on learning, innovative delivery, and thinking outside the box, assessment, meaningful learning experiences as well as transformative learning. Furthermore, Melluso et al. (2020) underscored that the Education 5.0 graduates are by far, endowed with knowledge, skills and attitudes to innovate and industrialise, thus fulfilling the desire to modernise the education sector, which leads to economic development in emerging economies such as Zimbabwe. Dill (1995) underscores that the Education 5.0 concept is underpinned on competitive markets, practical innovations, industrial activities and a professional conduct through self-regulation.

### **Education 5.0 policy Opportunities and Challenges**

Institutions of higher learning have emerged in literature as cornerstones of development world over. Chankseliani et al. (2021) underscore the view that opportunities for lifelong

learning are promoted and embraced in the inclusive, equitable and quality education in universities around the world. It is within this context that education at all levels blesses learners with opportunities to gain knowledge and understanding, use skills to buttress poverty alleviation and improve livelihoods. In 1980 the government of Zimbabwe (GoZ) introduced the Zimbabwe Foundation for Education with Production (ZIMFEP). In due course it failed due to lack of policy continuity coupled with the negative perception the stakeholders cast on the policy. There was little relationship between what was learnt in school and real-life problems. A yawning gap separates theoretical knowledge from its practical application (Zimfep, 1991). Education per se is regarded as a catalytic tool to open up many opportunities for personal knowledge development. It is also a weapon to fight poverty. In Tanzania, Julius Nyerere's Ujamaa philosophy seemed to suggest that colonial education trained students to advance and serve the interests the colonial state and white collar skills (Nyerere, 1968). Opportunities for student personal empowerment were stifled. The Ujamaa philosophy wanted to correct such a system by centring the learner just like the current heritage-based Education 5.0 in Zimbabwe.

Similar developments were noticed in Zimbabwe, especially with the recommendations of the Nziramasanga Commission in 1999, which saw the birth of Science, Technology Engineering and Mathematics (STEM) education policy. STEM was introduced to cater for secondary and tertiary level learners with flair in Science, Technology, Engineering and Mathematics. STEM education did not get very far because the teachers were not well-oriented and had no background knowledge to fall back upon when lesson delivery presented challenges (Mabhandu, 2016). The idea of STEM education was a noble cause because the STEM skills were fundamental factors that would drive technological innovation and positively mould learners who would leave tertiary education with entrepreneurial skills for job creation. In some instances, educators felt unprepared for STEM education because they lacked authentic scientific research and inquiry experiences in the STEM policy (Nadelson et al., 2012).

In the light of the above educational policies, it is apparent that policies were meeting successive disruptions and they seemed not to be making desirable solutions to economic problems in Zimbabwe. Zhang and Wu (2021) postulate that higher education institutions could contribute to economic development by promoting innovation and entrepreneurship skills in learners. Higher education has been highly regarded as an essential driving force for economic and social development, a catalytic tool to reduce poverty and promote prosperity. It has also been accorded the first priority on various global development agendas such as the

United Nations' Sustainable Development Goals (SDGs) (Cf, O. D. D. S, 2015). With this in mind, Zimbabwe has shifted from the Education 3.0 to Education 5.0, which is heritage based. This was necessitated by the need to prepare university graduates for job creation and not as job seekers. According to Tirivangani (2019) Heritage-based education is premised on the exploitation of readily available agricultural, climatologically and mineral heritage for national development. Given the opportunities to exploit local resources, it is common knowledge that exports of produced goods and services could generate foreign currency, leading to job creation and lowering of the unemployment rates.

According to Professor Amon Murwira (2018), heritage-based philosophy is based on utilising advanced scientific methods to develop new products and services that are tailor-made to the local needs of the environment. According to Murwira, heritage-based Education 5.0 is anchored on innovation in order to deliver relevant goods and services. Zimbabwe is a mineral-rich country. Such resources could be tapped in to finance heritage-based initiatives. During the current study industrial parks were being created at state universities in Zimbabwe in order to link them with innovation hubs. The Minister further highlighted the opportunities of Education 5.0 policy by mentioning the programmes that universities have embarked on. For instance, the Midlands State University has embarked on a research programme on the value of indigenous trees and herbs in developing pharmaceutical products, and the University of Zimbabwe has commenced the Future Grains for Africa programme that intends to develop novel food products to boost food security and economic growth (Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development, 2018). Such opportunities are being born out of the heritage-based Education 5.0 prevailing in Zimbabwe.

However, the downside of Zimbabwe's heritage-based education hinges on its implementation. A research conducted in South Africa by Ng'ambi et al., (2016) on the perception on education on the 4<sup>th</sup> Industrial revolution found barriers to the uptake of technology in higher education institutions. They then suggested a cultural shift in embracing personalised learning which offers opportunities for student-centred participatory learning approach to teaching, learning and research (Ng'ambi et al., 2016). Although governments have shouldered responsibilities to fund such programmes, the lack of an embracive approach on things like educator orientation, communication and infrastructure negatively affected the initiative. Such things are essential apparatuses that deserve the highest attention in the new Zimbabwe. Muzira and Bondai (2020) conducted a research on the perception of lecturers on

the implementation of the Education 3.0 in Zimbabwe. Their findings revealed a resource-poverty-stricken education system which neither had any infrastructure nor finance to support policy implementation. On that score, the quality, worth, clarity, easiness, and practicality of the change is essential for the change to be accepted and supported (Ornstein & Hunkins, 2013).

### **Human capital development theory**

The chief tenets of human capital theory which underpin this study are Becker's (1962) and Rosen's (1976) respectively. It is believed that investment in education makes a positive contribution to economic development. This is the mainstream view shared by this paper that education is an instrument capable of making a positive contribution to economic development as already alluded. Human Capital Theory refers to the knowledge, skills, abilities and capabilities of the workforce that gives an economic value to organisations (Fugar et al., 2013). More interestingly, Human Capital Approach fosters high quality economic growth, which also provides a significant guarantee for the enhancement of human quality capital and level of operation (Wang et al., 2022). In recent times, product quality has become the output of an investment in education, which today is exemplified by the social benefits of education (ULS, 2018). Human Capital Theory is the chief paradigm in the economics of education.

The tenets of the theory recount that the productive of human as a form of labour stems from the investment in training and education. More productive individuals are rewarded through receiving higher earnings and being gainfully employed. Within this context, some recent scholars remark that countries that have a high foreign direct investment in education ultimately have positive returns on economic development (Agasisti & Bertolotti, 2022; Chentukov et al., 2021; Maneejuk & Yamaka, 2021). In further illumination of this theory, it was found that it has a positive contribution to the growth of GDP in circumstances where economic opportunities and formal regulatory systems prevail (Ali et al., 2018). This approach has been applied to support the effective implementation of the Education 5.0 policy in this paper. Moreover, Jun-Rong and Rong-Rong (2017) postulate and confirm that innovations and human capital are the main drivers of economic growth and technological innovation in Eastern China. Given the prominence of the human capital theory, this approach has been adopted in the current study on the opportunities and challenges in implementing the Education 5.0 policy in tertiary institutions in Zimbabwe. The relevance of



the Education 5.0 is to inform an understanding of human capital development from an education perspective. This understanding becomes the theoretical ground, upon which the current study on the opportunities and challenges of Education 5.0 in tertiary institutions in Zimbabwe is built,

## **RESEARCH METHODOLOGY**

The article is an exploratory study that was conducted to examine the opportunities and challenges in implementing the heritage-based Education 5.0 policy in Zimbabwe's tertiary institutions. A qualitative research approach was deemed appropriate to address the research objective. According to Saunders, Lewis and Thornhill (2016) a qualitative approach aids in deeper understanding of phenomena. Extant literature was reviewed in order to fully understand the phenomena and an interview guide was formulated to guide the in-depth face-to-face interactions. The qualitative study was informed by the interpretivist philosophy which guarantees individual views, opinions and perceptions to be studied in their natural settings (Creswell, 2014).

### **Research design**

In order to establish the opportunities and challenges of implementing the heritage-based Education 5.0, the exploratory research design was utilised for data collection and analysis. Saunders et al. (2012) posit that exploratory research is applied to investigate phenomena that have limited or scanty information about their background. Sample and data collection

The target population for the study was forty-five lecturers in the research area. In research terminology the population can be explain as a comprehensive group of individuals, institutions, objects and so forth with have a common characteristics that are the interest of a researcher (Rafeedali, 2015). The common characteristics of the groups distinguish them from other individual, institutions, objects and so forth. Research target population consisted of University and Polytechnic college lecturers from two institutions of Higher Learning.

Ultimately, eighteen (18) participants were purposively selected as a final sample in this study. The purposive sampling method is a method of generating a sample based solely on the researcher's discretion and interpretation of the target group, as well as the nature of the analysis (Kumar, 2011). People who only meet the study criteria and end objectives are chosen in this sampling process and the rest are excluded. Purposive sampling was used to select lecturers from two institutions as part of the study population as they are the primary

outputs of the education 5.0 education policy. Purposive sampling was also be used to select critical participants such as lecturers as they have relevant information for the study.

In-depth interviews were utilised for data collection in line with the qualitative research. Kuman and Aaker (2019), define an interview as a conversation between two or more people in which the interviewer asks questions to extract information or statements from the interviewee. In qualitative research, interviews are a common occurrence. When used as a tool for performing qualitative research, interviewing is a technique for learning about other people's experiences. The researcher used interview guide to gather data for the study because they are a convenient way to do so. Interviews were used to gather data because they helped the researcher to explain certain concepts to the respondent if they did not understand the questions the researcher was asking.

An interview guide was developed to guide the interactive sessions (Saunders et al., 2012). The interviews sought to find participants' perception on opportunities and challenges in the implementation of the Education 5.0 policy in selected tertiary institutions in Zimbabwe. Nine (9) participants from each institution were interviewed and each interview lasted between forty (40) and fifty (50) minutes. A total number of eighteen (18) participants, nine males and nine females, attained degrees as their highest academic qualification. To ensure credibility and trustworthiness of research, debriefing was done where follow-up discussions were held after each interview. In this respect, triangulation occurs when a researcher attempts to collect data from more than two lenses (Remenyi, 2012).Data was collected from 18 participants.

### **Study site**

The study area is the Zimbabwean higher education institutions with participating institutions comprised of one university and one polytechnic in Zimbabwe. The heritage based Education 5.0 is a compulsory government policy in Zimbabwe to be implemented in all tertiary institutions with a view to achieve a middle income economy by the year 2030 (Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development,2018).

### **Data analysis method**

Thematic analysis was applied after the collection of data related to opportunities and challenges in the implementation of the heritage-based Education 5.0 policy. Additionally, a rigorous transcription of digitally recorded face-to-face interviews and written notes was

executed hence the emergence of the themes. The researcher with the guide from Lune and Berg (2017) literature, the researchers used content and thematic data analysis to analyse the findings. Thematic analysis was convenient and adopted in this study since a well-structured and organised final report would emerge through a rigorous summarising of the themes. The researchers were primarily concerned with the emergence of common patterns and relevant themes on the opportunities and challenges in the implementation of the heritage-based Education 5.0 policy in tertiary institutions in Zimbabwe (Carter-Greene, 2019).

## RESULTS AND DISCUSSION

### Opportunities of Education 5.0

In this section the results of the study on opportunities and challenges in the implementation of the heritage-based Education 5.0 in tertiary institutions in Zimbabwe are presented. The four themes which emerged on opportunities are, namely; personalised learner-development, production-oriented learning, increased learner innovativeness and employment generation. These are presented and discussed below.

#### *Personalised learner-development*

The findings revealed that heritage based Education 5.0 has direct opportunities to learners in Zimbabwe. The following quotes expressed the opinions of the interviewees:

*I believe this policy dispensation in Zimbabwe is a noble initiative in the sense that it recognises the learner as the champion of education. It, therefore, empowers the learner with new learning methods that will culminate into individual development (Female P1).*

*Education5.0's first pillar is about teaching and learning and it enriches knowledge to the student leading to personal development. We no longer archive the knowledge researched in the library but it should be taken to the communities and allow community members to benefit through products and services the individual learner produce as symptomatic-vices for progressive learning (Male P18)*

*Heritage-based Education5.0 seems a more emphatic learning tool. By allowing personalised learning, it promotes tailor-made learning experiences based on the individual's needs, interests and pace of learners. This concept may be one of the best in Zimbabwe, if it gets full government support. It provides opportunities for learners to take ownership of their education. They can further connect theory with practice and apply the knowledge to real-life-world scenarios (Female P2).*

*If one is able to make personal achievement, the Education 5.0 ignites one's motivation leading to personal aggrandizement through producing products for personal commercialisation. This is a poverty-alleviation intervention (Male P7).*

The above statements inspire hope for the future of Education 5.0 policy. It brings glory to learners who can be in the centre of learning process. It emerged that the Education 5.0 plays a catalytic role by providing many learner opportunities, leading to self-empowerment with skills that can be further used to produce artefacts to start on a new business. Reality is now in the hands of the empowered learners who boost hands-on skills. The results corroborate Nielsen's (2015) findings that stipulate that an investment in practical education is, should be understood better from physically constructed artefacts as supported by tenets of constructivist approach. This implies that Education 5.0 is an instrument to empower the mind with knowledge and skills, and liberate the hands to fight any form of personal underdevelopment. Thus, the heritage-based Education 5.0 should not be under-estimated because its opportunities have found space in work where it acknowledged that student-centred education is enhanced when learners use their knowledge to solve community-based problems.

#### ***Production oriented-education innovation and commercialisation***

Production oriented-education and commercialisation emerged as another relevant theme. It was underscored that the Education 5.0 is more than producing entrepreneurs with a mind to service the needs of communities by merely using our local resources. Some universities in Zimbabwe such as Chinhoyi University of Technology are doing well in agricultural food industry. Some of the gains of adopting the 5.0 pillars have been stated below:

*You have heard about so many productions and innovations coming from industrial hubs of universities such as Midlands State University, Chinhoyi University of Technology, National University of Science and Technology and polytechnics. These are the power brains and the think-pots of the country. Mutare polytechnic students have built the MSU Medical Centre Ideology (Male 10P).*

*The heritage-based Education 5.0 creates in learners a productive mind-set. Evidently, many higher learning institutions have found opportunities of their innovations during the COVID-19 pandemic. Many of them have managed to produce and commercialise facemasks, sanitizers and other-related healthcare materials (Male P14).*

From the quotes above it is evident that the heritage-based-Education 5.0 could be the solution to the national economic woes in Zimbabwe. Respondents disclosed that practical solutions from the new education dispensation policy in Zimbabwe were bearing fruit. New knowledge is not useful if it does not benefit the society. This suggests that the Education 5.0

is a policy to reckon because it is the drive way to the 4<sup>th</sup> industrial revolution in Africa, and Zimbabwe in particular. This is in agreement with the theoretical arguments of Manyika et al. (2017) who underscored the opportunities noted as stated in a report by McKinsey and Company. They found that several existing work activities could be transformed into automation by the current technologies, which would create new types of jobs and save billions of company dollars.

Results also show that the government of Zimbabwe's (GoZ) new education policy development has received positive attention from academics. Two participants made the following apt statements:

*The heritage-based Education 5.0 policy is more practical than ever and exposes the learner to physically doing something rather than the old Education 3.0 which was more docile and not learner-driven. At the University of Zimbabwe there is a bakery, hospital garment factory and another factory which is manufacturing vehicle number plates (Female P12).*

*MSU has a printing enterprise. They also have a clothing industry that produces gowns among other products. Previously, the problem was having graduates with knowledge but who could not use it to do something tangible (Male P18).*

In view of the above responses the heritage-based Education 5.0 is playing a catalytic role that stimulates innovation in institutions of higher learning such as universities and polytechnics. Industrialisation is possible in Zimbabwe if institutions promote the use of local resources. Besides, Zimbabwe is endowed with several minerals that can be utilised to fund innovation and industrialisation in the country. The results of the interviewees above highlighted that commercialisation as opportunities from the Education 5.0 Policy are gaining prominence in universities. For instance, it emerged that UZ has started a bakery, hospital garment factory and the other factory producing number plate. With this rate of commercialisation in Zimbabwe's universities it would be fair to argue that, accordingly, the 4<sup>th</sup> Industrial Revolution is attracting increasing attention from policymakers, business practitioners and academics (World Economic Forum, 2018). Female participant 17 indicated that one polytechnic college in the Midlands province had showcased products such as chicken-eggs-incubators; maize shellers and chemical-water sprays were among many showcased exhibitions at Gweru show. Thus, opportunities for an entrepreneurial ecosystem are very high.

### ***Employment creation***

Another theme that emerged from the data collected was employment creation. The interviewees expressed that the Education 5.0 policy offered opportunities for entrepreneurship development. In this regard, it has been alluded to earlier on that the practical innovations and opportunities for industrialisation have taken place in some tertiary institutions in Zimbabwe. Some of the responses have been captured below:

*We have faced significantly high unemployment rates in Zimbabwe for the past three decades. With the proper implementation of Education 5.0, employment opportunities will openly present themselves. Notably, universities like MSU and UZ have well-resourced innovation hubs and industrial parks, and evidently, there are people already employed and working there (Male P6).*

*Another example is that there are graduates at Norton who have embarked on agriculture, aqua-culture and onion farming. This is evidence of how graduates from UZ are putting the scholarly knowledge into practical use (Female P4).*

In the light of the above statements from participants, the heritage-based Education 5.0 has proved to be bearing positive prospects of the new dispensation policy advocated by the president of the Republic of Zimbabwe to provide opportunities that create employment. It emerged that the efforts put by tertiary institutions in stimulating innovation and industrialisation contributed towards addressing the challenge of high unemployment in Zimbabwe. It is important to mention that the Education 5.0 policy was holistically anchored in entrepreneurship and that we cannot talk of the Education 5.0 without talking about entrepreneurship. Education 5.0 is an intervention that reduces poverty and unemployment by way of applying entrepreneurial skills. This is in tandem with the theoretical arguments of Kapse et al. (2018) who underscored that Education 5.0 provides unique learning environments to learners in order to instil job skills with which graduates could venture into self-employment, and thus fight poverty. Consistent with the human capital approach, researchers postulate and confirm that innovation and human capital are the main drivers of economic growth in eastern China (Jun-Rong & Rong-Rong, 2017).

### **Challenges of the Education 5.0 policy**

Themes that emerged on challenges are as follows; lack of policy-orientation, lack of adequate funds, and policy inconsistency by government. These are presented and discussed below.

#### ***Lack of orientation***

The responses from the interviewees bemoaned the challenges that stall the effective implementation of the heritage-based Education 5.0 in tertiary institutions in Zimbabwe. The interviewees expressed that the policy had been imposed and educators were compelled to implement it without fail. To this end, lecturers feel that there was need to further explain the policy framework to achieve more tangible results. However, if concerns are not rectified the implementation challenges will impede the attainment of the vision 2030. The President of Zimbabwe has stated that “Vision 2030 is our new drive for regeneration of employment, through innovation and industrialisation in the new dispensation” (Higher and Tertiary Education, Innovation, Science and Technology Development, 2018). The participants were so much worried about what is really needed. The responses below came out during the interviews:

*The interpretation of the two pillars, innovation and industrialisation is difficult as many people attach the meaning of industrialisation to physical production of tangible goods only, for example, producing a chair. Those with soft skills are somehow side-lined (Female P16).*

*In my view, I think the leadership of universities and tertiary institutions such as polytechnics might not be fully forthcoming, despite the developments broadcasted in the national televisions. Some of them are still in dilemma as to how every member has to achieve innovation and industrialisation (Male P17).*

*What may be stifling the achievement of Vision 2030 has to do with leadership crisis surrounding the Education 5.0 policy? This is despite the gains so far made. The powers that be are not well-versed with the nitty-gritty's of the policy. Moreover, leadership in some tertiary institutions in Zimbabwe appears to have created empires. These empires are difficult to break, penetrate or modify. People who are not close to them are shut out; no matter what new ideas they may have (Female P9).*

*I reckon the creation of industries in some institutions. I give credit to both management and staff. However, the policy is precariously limited in terms of communication. Thus, with limited communication, understanding becomes a challenge to many people (Male P14).*

Similar sentiments were echoed by several participants who expressed their fear to implement the Education 5.0 policy. It seemed that the fear draws from the negative perception of the policy. Fears are also thought to be propagated by the negative institutional problems in some cases. It emerged from the quotes above that there was misinformation as well as lack of understanding, and policy interpretation is likely to affect policy implementation. This is in accordance with the findings of Muthanna and Sang (2018) and Muthanna (2013) who investigated a conceptual model of the factors affecting education policy implementation in Yemen. They observed that there was lack of clarity on the roles of administrators and that

there was also unfair implementation of the policy. This was because of poor understanding, use of personal power and nepotism.

Overall, this showed a lack of policy orientation and commitment, which damages tertiary institutions. Such a scenario could result in poor implementation of government policies (Muthanna & Sang, 2023).

### ***Policy inconsistency***

The findings of this study revealed that institutions of higher learning suffered from a setback of policy inconsistency which they thought the Higher Education Ministry should be held accountable. The lecturer participants highlighted that their ministry had not been able to police one framework and support it till it had been established and achieved its objectives. There was evidence of lack of policy continuity. Some of the participants mentioned the following:

*Personally, I find the policies good although they are top down and we have no ownership. Their change may be too abrupt and without any form of consultation (Male P18).*

*The Science Technology Engineering and Mathematics (STEM) education policy was another example of an imposition and that is why it is not receiving full attention. The STEM policy was traded more in favour of boys who were good in science subjects and discriminated against other students who did not take engineering courses, especially in polytechnics (Female P3).*

*Our policies lack continuity. Among them have been ZIMASET, STEM and ZIMFEP just to mention a few (Male P16).*

*The issue of policy inconsistency demands one to seek knowledge of other policies supporting the Education 5.0. There is less emphasis on STEM education policy but you cannot achieve innovation and industrialisation without Engineering, Technology and Science. The STEM policy has now been shifted to Mkoba Teachers College where training of secondary Science and Mathematics teachers is taking place (Male P18).*

*In my view, the heritage-based Education 5.0 must be supported by the STEM policy and Entrepreneurship education policy. In fact, the Education 5.0 is the epitome of entrepreneurship that may lead to the forth industrialisation in this country (Male P11).*

It emerged from the data that there was policy inconsistency which presented challenges to the implementation of the Education 5.0 policy in Zimbabwe. Universities, polytechnics and teachers colleges have a ministerial duty to implement the policy in line with the government's Vision 2030. It implies that the implementation of the policy in tertiary institutions must remain consistent and driven by material, financial and human capital resources. Policy discontinuation tends to be cancerous in Zimbabwe. Participants felt that



there was a need to use the STEM education policy in support of the Education 5.0 policy and make a concise policy evaluation to gauge the extent of their success. They expressed the view that reforms that the government initiate should be completed, measured and evaluated according to stakeholder's expectations. This should be despite the costs incurred. There is a dark cloud of uncertainty. If implementers do not have any clue on a policy they may resist the change associated with it. The findings in this study find support in the works of OECD (2016:9), which observed that "due to high cost of reforms and the uncertainty about the outcomes, stakeholders may prefer sticking to the status quo rather than changing". From another perspective, the interviewees lamented the resistance to change as another primary challenge that stalled the implementation of the Education 5.0 policy in Zimbabwe.

### ***Lack of funds***

Another theme that emerged from the data collected was lack of funds to support the full implementation of the Education 5.0 policy in Zimbabwe's higher education institutes. The interviewees expressed the view that implementation of the Education 5.0 is hampered by lack of resources, which stifles progress in various institutions of higher learning in Zimbabwe. It emerged from the data that the government did not adequately and fairly fund all the institutions. Some have benefitted from government-sponsored innovation hubs while others were funded to construct industrial parks while others did not receive any financial support. Some of the participants' view were recorded underneath:

*I have already pointed out some of the challenges. It seems universities are getting more attention than polytechnics, forgetting that polytechnics' major mandate is to produce industrial hands and entrepreneurs. (Female P5).*

*Polytechnics really depend on students' fees and these are just but very little. Policymakers mute a policy and slide it into the concerned institutions for implementation. It seems as if the reform lacks a proper budget and it may lead to unexpected results (Male P10).*

*Let us say people pool their brains together and produce a product, the challenge comes during the stage where the group members attempt to share the proceeds from the innovation. It would totally blunt one's motivation for good (Female P4).*

*I feel so sad because Zimbabwe has plenty of opportunities that when tapped on, might roll the development of this philosophy 5.0. The country is endowed with plenty of minerals, educated human capital with relevant skills but the policy is under-resourced. This is a heritage-based philosophy endowed with passionate students, engineers, universities with hubs but the major black side of the philosophy is the lack of funding. (Male P15).*

As evident in the above responses the heritage-based Education 5.0 policy is underfunded. This is despite the privilege of being endowed with opportunities that can stir a remarkable

development in the country. It can create further opportunities for employment and leading to increase in trade and generation of foreign currency. Thus, the need for government support in high education institutions may be a positive move that bears testimony to the importance of education in the economic development and improvement of the general people's livelihoods. The results corroborate the findings of Verheul et al. (2015) who found that the investment in education facilitates the accumulation of the development of human capital, and, above all, can also lead to improvement in entrepreneurial activities by individuals. In order to improve the implementation of the Education 5.0 the whole programme requires commitment and resource support.

## **FINDINGS**

Findings indicated that Education 5.0 policy is the right initiative for the tertiary and higher education sector in Zimbabwe. This came as a result of a growing need to provide solutions to mounting economic problems that have lowered standards of living of the ordinary people all over the world. This was supported by Hanushek, (2008) who asserted that individuals who are better educated make others better by sharing their knowledge, more skilled societies are more likely to be innovative, and organisations could become more productive as a result of individuals who are better educated since they can effortlessly introduce new technologies.

Education 5.0 Policy is perceived as a solution to economies waning fortune because empowers students with practical skills apart from learning theory which equipped learners with relevant skills rather than being job seekers. In this perspective the social community tend to improve their standard of living. According to Solomon (2016), the quality of education input has a much bigger impact on cognitive results in poor nations than it does in developed countries. Small increases in input quality, according to Heyemand and Loxley (2013), lead to dramatic changes in disadvantaged communities.

In this regard, findings from the study asserts that the acquisition of cognitive skills by students while still at university plays a critical influence in defining their living standards later in life in both developed and developing countries (Solomon 2016),

However, besides these opportunities of implementing Education 5.0 policy in Zimbabwe, several challenges were noted from the study. Availability of critically relevant resources proved to be the major obstacle in the implementation process. Among the major challenges is financial support from the Government as well as well wishers to achieve desired results.

Innovative knowledge is well initiated but due to resource scarcity, all collapsed at the infancy idea stage.

## **PRACTICAL IMPLICATIONS**

This research has some practical implications for government, researchers and policymakers within the higher education institutions context. Given that the results established that the heritage-based Education 5.0 policy plays a catalytic role in stimulating economic growth through innovation and industrialisation, it would be prudent for the government to come up with further policies designed to complement the effective implementation of the Education 5.0 policy framework in tertiary institutions. The Zimbabwe government should demonstrate its commitment by way of providing an overwhelming support and funding to various innovation artefacts, prototypes and hubs and industrial parks. This could serve as a “bottom-up” toward complementing the Education 5.0 policy and fostering economic growth the in the country. The Entrepreneurship educators, Engineering, Innovation, Sciences and in other departments in the institutions could organise workshops at institutional level to disseminate crucial knowledge on the Education 5.0 policy.

## **CONCLUSION**

The study enriches the extant literature on implementation of the Education 5.0 policy in Zimbabwe. Opportunities and challenges in the implementation of the policy framework in Zimbabwe’s institutions of higher learning have been identified. The study established that the heritage-based Education 5.0 has opportunities which participants felt have positively contributed to national development. Employment creation, trade, plenty of mineral resources, skilled engineers, economic development, and poverty alleviation were some of the opportunities highlighted by the participants. Moreover, lack of adequate government funding and support, resistance to change, policy inconsistency and poor orientation of the policy were identified as primary challenges facing higher education institutions in the implementation of the Education 5.0 policy in Zimbabwe. Nevertheless, the heritage-based Education 5.0 is perceived as one of the policies which can stimulate innovation and industrialisation in Zimbabwe and fulfil the UN’s sustainable development goal number 4 whose aim is to improve quality education in the world.

The study also has some limitations. The possibility to generalise the findings of the study is limited due to the use of only two institutions of higher learning in Zimbabwe. The survey did not collect any data from teachers' colleges although these fall under the higher education institutions in Zimbabwe. In future, studies could make a quantitative survey that uses big data-set statistically to have more comparative information on people's views on the implementation of the Education 5.0 policy in the country as a whole. Likewise, teachers' colleges should be part of the study area. However, the study results demonstrated that higher education institutions play a crucial role in promoting innovation and industrialisation, which activates economic development in Zimbabwe. People in the grassroots lack knowledge of the policy. However, even some big people too are not well-informed on the policy, hence would want to maintain their status quo leading to resistance to change. The government of Zimbabwe must conduct many workshops to raise awareness of the policy framework. Any government programme requires concerted efforts and the commitment of stakeholders through budgetary support that funds the programme initiatives.

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