THE ROLE OF EDUCATION FOR INDUSTRIAL DEVELOPMENT IN TANZANIA

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Abstract

The provision of education in Tanzania is guided by national macro policies, plans and strategies, and by education sector policies, programmes and strategic plans. The macro-policies include the Tanzania Development Vision 2025, the National Strategy for Growth and Reduction of Poverty (NSGRP/MKUKUTA) and the Tanzania Five Year Development Plan (NFYDP II) of 2016/17 to 2020/21. The main focus of the sector policies is to transform the education sector into an efficient, effective, outcome-based system, which would facilitate socio-economic transformation of the country including support for industrial growth. However, for Tanzania to achieve its Vision 2025 of becoming an industrialized and middle-income country, it will need to develop the right mix of high quality skills to drive continued growth. This paper shows that the path for industrial growth is challenged by a number of issues including lack of requisite skills to support and sustain industrialization. The paper calls for adoption of the technology entrepreneurship and establishment of effective financing and quality assurance systems for education to deliver and support industrialization.

1.0 Introduction

The provision of education in Tanzania is guided by national macro policies, plans and strategies, and by education sector policies, programmes and strategic plans. The macro-policies include the Tanzania Development Vision 2025, the National Strategy for Growth and Reduction of Poverty (NSGRP/MKUKUTA) and the Tanzania Five Year Development Plan (NFYDP II) of 2016/17 to 2020/21. The national policies/plans are further supplemented by education sector policies and programmes. National education policies and strategies have also been shaped by Tanzania's international commitments.

The main focus of the sector policies is to transform the education sector into an efficient, effective, outcome-based system, which would facilitate the achievement of the educational goals as delineated in the Tanzania Development Vision 2025 and the three pillars of the NFYDP II namely industrialization, human development, and implementation effectiveness.

The Tanzania Vision 2025 articulates the aspiration of the the country of becoming an industrialized and middle-income country. This necessitates the need to develop the right mix of high quality skills to drive continued growth. However, the need for the right mix of skills is overstretched by high population growth rate of 2.7% per year. That means Tanzania is adding approximately 1.2 million people per annum. The high population growth coupled with the increased number of children enrolled in school makes it more important than ever to develop relevant skills for the youth to ensure their effective participation in national development. Therefore, our intention is to improve the quality of education at all levels, strengthen vocational and technical training and create employment particularly through industrialization. We are convinced that we can – as China did gain from population dividend where the youthful population is effectively utilized to build the economy and realize our aspiration of becoming an industrialized and middle-income country by 2025.

This paper argues for education reforms necessary for industrial growth. The rest of the paper is divided into four sections. Following this introduction is the second section where the nature and challenges for skills development in Tanzania is presented and discussed. The third section presents drivers for industrial growth while the subsequent section presents the importance of technology entrepreneurship as key for industrial growth. The paper ends with a conclusion and the way forward.

2.0 Challenges for education and skills development in Tanzania

While Tanzania is envisioned to become a middle income country by 2025, the attainment of education among pupils and the entire population is showing both positive achievements and existing challenges. On the positive achievements, Tanzania's education sector has witnessed impressive increased school enrolments at all levels. For example, for the past five years, more than 90% of primary school-age children (age 7–13) are enrolled school (BEST, 2017). The introduction of free basic education has led to even a massive increase in number of children in primary schools from 8,298,282 in 2015 to 9,639,202 in 2016. The transition rate to secondary school has increased from 21.7% in 2000 to 70.6 in 2015 (BEST, 2017). Enrolment in higher learning institutions has increased from 44,715 in 2012/13 to 69,539 in 2016/17.

The main challenge existing that the government is currently addressing is the quality of education. We are still constrained by limited capacity to provide the necessary inputs for effective teaching and learning in our institutions. There is a need for expansion and modernization of our training institutions to match with the requirements of current technology. Equally important, there is an urgent need to re-balance both the number and skills relevance at all levels of education.

Findings from Tanzania Enterprise Survey 2013 show that about 40 percent of all firms involved in the survey identified an inadequately skilled workforce as a major constraint to productivity in many sectors. Figure 1 shows the kind of skills that were reported to be inadequate compared to the needs. Work ethics, communication and problem solving skills were among the skills reported to be highly inadequate. On the other hand, an even higher number of failed firms reported skills constraints as one of their main challenge. The survey shows that 63 percent of failed firms indicated that the shortage of workers with the right skills profile was a contributing factor of above average importance to failure.

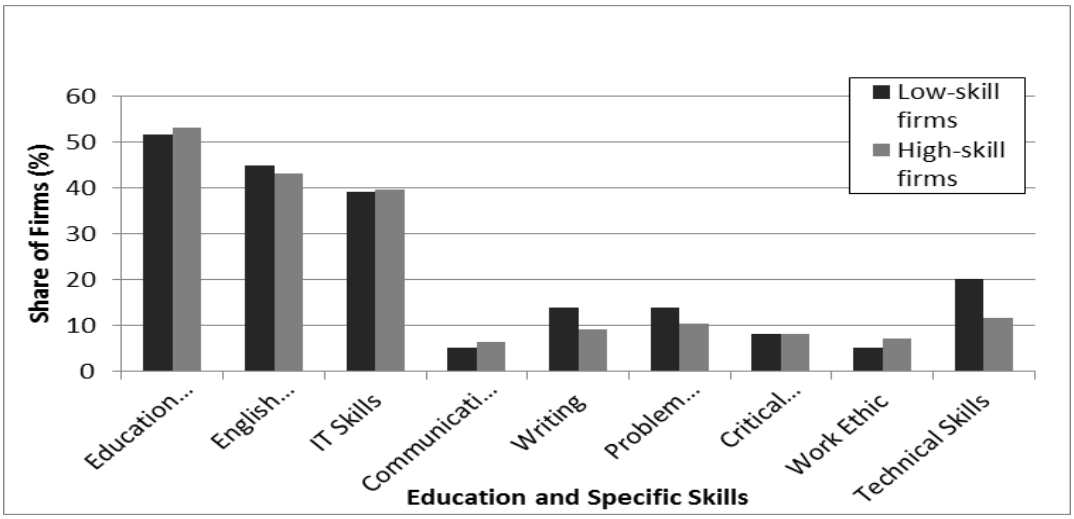

Figure 1: Percentage of Firms Reporting Skills as Inadequate Relative to Need.

3.0 Drivers for industrial growth in Tanzania

On the basis situation analysis, the process of industrialization is driven by three imperatives: the need to have a skilled labor force which can support the growth of key economic sectors, the need to accommodate large numbers of young people entering the labor force every year in search of productive jobs and the need to integrate science, technology and innovation to sustain industrial growth. Hence, we need to consider these imperatives in order for us to realize effective and sustainable industrial growth.

3.1 Skills relevance

Industrialization requires us to engage into building skills relevant to drive industrial growth. Reviews from labour market surveys indicate that out of a workforce of 19 million people more than 14 million are self-employed in the informal sector, primarily in agriculture and petty trading. Therefore, skills development interventions in the country should be designed to curb the existing skills gaps in both formal employment and in the informal sector.

Successful skills development needs involvement of stakeholders beyond colleges and institutions. Private sector and labor based organization must work together with state actors to bring about the desired targets and provide appropriate atmosphere for relevant skills development. Through Education for Skills and Productive Jobs programme, the government is determined to address the issue of skills relevance and increase the number of skilled workforce. The involvement of the private sector is crucial in ensuring that our institutions provide relevant skills and also in providing opportunity for the on-job training. We invite foreign investors and the private sector to support the government efforts in skills development so that we develop required competent manpower for industrialization.

3.2 Science, Technology and Innovation

The role of science, technology and innovation cannot be overstated. Governments, public-private partnerships, and development organizations across the world have attempted to emulate Silicon Valley for decades. Some of those efforts have paid off. For instance science, technology, engineering, and mathematics (STEM) employment has been influential in the overall growth of industries in the world. The future of our country and our ability to meet major economic, social, and environmental challenges rests largely on how we adapt to and take advantage of changes in technology.

Growing from within by supporting expanding young employers and assisting new startups has become a stronger, if not the primary, focus of job-creation efforts in many countries. Many state-led strategies for business growth are now based on the assumption that innovation and technology development drive growth and competitiveness along with technology entrepreneurship.

However, it is important to distinguish between technology entrepreneurship from other entrepreneurship types (such as social entrepreneurship, small business management, and self-employment). Technology entrepreneurship involves production of new products, assets, and their attributes, which can be intricately related to advances in scientific and technological knowledge and the firm’s asset ownership rights. “Innovation driven enterprises,” which include a wider universe of

entrepreneurial firms whose competitive advantage might be a process, service, or business model, are also an important piece of the puzzle for states wanting to foster a more innovative economy.

As we set up and operationalize the agenda for industrialization in the country, it is important that we support the growth technology entrepreneurship. Investment agents are therefore urged to come up with strategies and programs that support local technology entrepreneurship. This will not only ensure mass participation in the industrialization process but also enhance industrial sustainability.

4.0 Conclusion and the way forward

This paper has, in a summary, highlighted the role education and the challenges for skills development for industrialization in Tanzania. Looking at the analysis, it is evidence that while we develop the industrial sector, it is important for all stakeholders to work to support the development of requisite skilled workforce. More importantly, is the need to relate industrial growth with science, technology and innovation. Using the concept of technology entrepreneurship, stakeholders are encouraged to support the use of technology associated with entrepreneurship. To do so, the paper suggests the following:

4.1 Supporting institutional growth

There is a need to support the growth of both the institutional mechanisms and systems designed to have transformative impact and high potential for growth and job creation. To achieve this, the government will build on the existing functional structures while creating new institutional mechanisms to address the emerging requirements.

4.2 Improving quality of course content and trainers

Traditionally, the curricula used for skill training were developed without the involvement of industry. As a result, the gap between skill sets demanded and skill sets supplied keeps on increasing. There is a need for skills providers to develop effective mechanisms to involve the industry in the skill development process as they play an important role in the job market. Efforts should also be made to involve the private sector in developing cost effective learning tools related to Industry.

4.3 Inclusive skills development efforts

There is a need adopt a “smart” skills development model in which active participation of employers and employees in education and training is backed with institutional support from the government. It is through these kinds of partnerships that the supply and the demand side of skills continuum will be maintained for effective industrial growth and development.

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