Policy Scenarios in Ethiopian Higher Education Expansion: Challenges of Program Diversification and its Future Implications

Teklu Tafase Olkaba [a,*], Wakgari Tasisa Duressa [b]

[a] College of Education, Jimma University, Ethiopia
[b] College of Education, Haramaya University, Ethiopia

Abstract

The study investigated the extent of Ethiopian higher education expansions policies and its program diversification responding to the local market demands and realities on the ground. The study explored a range of literature on Ethiopian higher education policy scenarios within national development policies. The study was guided by one research question: To what extent the expansion policy and program diversifications in Ethiopia higher education responded to the demands and realities of the local economy? The literature review, document survey, and focus group discussions were used to examine the expansions policies and their program diversification processes. The findings of the study illustrate that the responsiveness of Ethiopia's higher education expansion policy brought a tremendous increase in enrolments within a short period. Moreover, the finding confirms that the Graduate Mix Policy resulted in poor program relevance and a graduate unemployment crisis. Based on the findings of the study, conclusions were made for policymakers to critically revisit the policy scenarios in Ethiopian higher education expansion, diversification, and relevance in line with national, regional, and global manpower demand.

Keywords: deliverology, diversification, expansion policy, graduate mix, higher education, program relevance.

Introduction

The endorsement of the Ethiopian education and training policy of 1994 brought endeavors to expansion and program diversifications of higher education for the last fifteen years (2002–2017). Following the education and training policy, the education sector development program was developed to translate policy into action in line with the Ethiopian government's five-year strategic plan (Ministry of Education, MOE, 2014). The reform initiated by the Ethiopian government aimed at addressing the rapidly changing global knowledge convergence that demands local and global knowledge integrity (Teshome, 2007). In the current transformation of nations into knowledge economies and knowledge societies, higher education provides not only educated workers but also knowledge workers who contribute to the growth of the economy (Altbach, Knight, 2007). Scholars of higher education remarked that higher education as the chief concern of the nation and plays a tremendous role in shaping and preparing nations for the future in an increasingly globalized world. As stated by Altbach et al. (2009):

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[*] Corresponding author
E-mail addresses: teklu252@yahoo.com (T.T. Olkaba), wakgaritasisa2016@yahoo.com (W.T. Duressa)

"Globalization is the flow of technology, economy, knowledge, people, values, ideas across the borders. Globalization affects each country in a different way due to a nation's individual history, traditions, culture and priorities. To cope with the globalization, the higher education system has to re-orient its structure and function besides enlarging the scope of its provisions to meet the challenges of globalization" (Altbach et al., 2009: 57).

On the other hand, institutions in any country or nation are a reflection of culture and traditions, although globalization directly affects institutions, whether educational or otherwise. Even though nations or countries have their institutional policies and procedures, they cannot escape the influence of global discourses (Altbach, Knight, 2007). Since the endorsement of the current education and training policy of 1994, Ethiopia has engaged in a highly ambitious effort to re-align its higher education system more directly to its national strategy for economic growth and poverty reduction (MOE, 2016). The number of universities changed drastically from two universities to 49 universities within the last fifteen years. Within this expansion, an attempt was made to diversify disciplines and human resource requirements in all sectors (MOE, 2016).

The increase in university enrolments in science, engineering, and technology is the result of the new strategic approach of the government of Ethiopia (MOE, 2017). In this context, the government of Ethiopia is focusing on helping its tertiary education institutions to become more innovative and responsive to the requirements of a globally competitive knowledge economy. However, the local responsiveness of Ethiopian higher education within the context of the current global demand may be questioned. In light of these realities, the study was guided by the research question: *To what extent the expansion policy and program diversifications in Ethiopia universities respond to the demands and realities of the local knowledge economy?*

Ethiopian Development Policy in Higher Education Context

The study was conducted in Ethiopia, the second-most populous African country after Nigeria with about 100 million people. According to the World Bank report, the population of Ethiopia is still growing at a rate of 2.5 % per year (World Bank, 2013). Regarding the population, about 45 % of the people fall into the youngest group of younger than 15 years of which 83 % live in the rural areas of the country. This shows that Ethiopia has considerable potential regarding human resource development that can make a positive contribution to national economic development. From the geographical and ecological point of view and concerning the traditions of the country, agriculture is the main occupation for both the highland and lowland inhabitants (World Bank, 2013). The inhabitants of the highland temperate zones are mostly into crop production and have good access to education. Nonetheless, most of the inhabitants of the lowland are pastoralists with limited access to education until the introduction of the 1994 education policy (MOE, 2016).

Based on the realization of the agriculture potential and the existing young population, Ethiopia's development policy was designed to be agricultural-development-led industrialization [ADLI] (MOFED, 2011). Ethiopia is one of the poorest countries even when compared to developing countries as well as other African countries. Ethiopia's population has experienced severe famine and endured starvation over an extended period. Traditionally, farmers engaged in only subsistence farming. There are neither educated farmers nor mechanized agriculture to satisfy the basic needs of the population such as food production, although the country has fertile land with sufficient and appropriate rainfall and enough water resources for potential irrigation (Belay, 2006).

Agricultural-led development policy was aimed at promoting agriculture and thereby, gradually producing an educated workforce that can promote industrialization. Strategically, when agriculture is well developed, it realigns its position in the industry; while the industry plays a leading role (MOFED, 2011: 34). As evident:

"Modernizing agriculture and improving its efficiency and productivity ensure food security, create employment opportunities and enhance the country's foreign exchange earnings with the aim to promote the development of a vibrant industrial sector and accelerate overall economic growth. ADLI is supplemented by sector-specific strategies in areas such as health, education, ICT, population, industry."

The Ethiopian government's ambition is to:

"…to see Ethiopia become a country where a democratic rule, good governance and social justice reign upon the involvement its peoples, and extricating itself from poverty becomes a middle-income economy" as recognized by a per capita income of 1000 USD by 2025" (MOFED, 2010: 12).

The intention of the Ethiopian government development plan can be met if the sustainability of educational reforms meets the pace of local and global demands through competitive performance (Teshome, 2004). Whatever the policy of the country, the skills of educated human resources ensure the implementation of a paper policy in practical terms in today's globalized knowledge economy, where 'information societies are emerging' (Teshome, 2004: 17), higher education institutions are inspired to produce appropriately skilled human power required that link-local and global knowledge demand.

The Ethiopian government endorsed the growth and transformation plan to boost the country's economic development to the minimum threshold of the middle-income countries by 2025. The first phase of growth and transformation plan was endorsed in 2010 till 2014/15, while the second phase of the plan to endorse from 2016 to 2020. To achieve the intended target by 2025, the Ethiopian government expects higher education to play a role in local development that in turn promotes the competitiveness of the country with global policy discourses.

The quality of knowledge and the knowledge economy relies on the quality of research and innovation that higher education delivers to meet the global knowledge demand (World Bank, 2015). The World Bank recommends that Ethiopia "would be wise to begin looking at ways to improve the relevance of education in the near-term, but must be aware of the long-term nature of investments in tertiary education (World Bank, 2015: 90). Therefore, on the legal basis of the Growth and Transformation Plan (GTP), Ethiopian higher education institutions are expected to produce graduates with skillful focusing on job creation, the satisfaction of local manpower demand, and technology transfer consistently with country's priority needs that responds to global policy discourses.

In Ethiopia, higher education research report portrays that for the last 15 years, different reform tools for both higher education administration and quality management have been introduced (Olkaba, 2015; Teshome, 2007). Some of these tools are as follows: Business Process Re-engineering (BPR) implemented for responding bureaucratic administration aspects of higher education, while Business Score Card (BSC) and Kaizen were introduced for quality and resource management strategies in Ethiopian higher education (Olkaba, 2015). The Office of Quality Assurance at institutional levels and Higher Education Quality and Relevance Agencies were established at a national level to monitor Ethiopian higher education quality at large (Olkaba, 2015; Teshome, 2007).

Graduate Mix Policy and program diversification in Ethiopian universities

Besides the expansion policy of higher education, the Ethiopian Ministry of Education inaugurated the 'Graduate Mix Policy' (MOE 2009: 39) in all public universities. The basis for the Graduate Mix Policy was to balance the qualified human power for the growth and transformation plans to revitalize the country's economy from an agriculture-based economy to the export-led economy (MOE, 2009). The Graduate Mix Policy intends to have about 70 % of science and technology graduates leave school to join public universities in the fields of science and technology (MOE, 2009). However, the Graduate Mix Policy of Ethiopian higher education resulted in a rapid increase in science and technology enrolments with large numbers of new entrants at all Ethiopian public universities. Though Ethiopia's Ministry of Education is claiming to continue at the same rate until 2025 (MOE, 2014), scholars in an area claim that the rapid increase in enrolments in the science and technology streams without much preparation and program relevance (Mulu, 2012, Olkaba, 2017, 2015). This they believe may affect the likelihood of graduates either getting employed or creating jobs as the country's economy is at an infant stage to absorb exacerbating graduates in science, engineering, and technology disciplines. In contrast, due to the global knowledge economy and market competitiveness, educated manpower with globalized knowledge for local and global development is demanded to foster sustainable, rapid and equitable economic

growth (World Bank, 2015). These illustrate the breadth and ambition of the Ethiopian government's current higher education reform, which suggests strengthening national capacities and improving the linkages between the labor force demands of an emerging global knowledge economy. Even though the Ethiopian government gives higher education a central position for social and economic development, its policy position for local knowledge economy development and market demand needs critical analyses to foster balanced manpower of both local and regional development demands.

'Deliverology': A quality management strategy in Ethiopian universities

Academic community and scholars in areas of higher education policy can question why deliverology in Ethiopia, and why it is in higher education? During the introduction of deliverology, the philosopher of Deliverology, Sr. Michael Barber came to Ethiopia and gave a day lecture on how to use deliverology in the educational system in general and higher education in particular. In his lecture, Michael Barber told the country that he worked in various levels of education in the United Kingdom and advisor of the former UK Prime Minister, Tony Blair and head of Delivery Unit, which supports the government of Blair for prioritizing and improving public high public demands and services (MOE, 2017).

During the inception of deliverology in Ethiopian, it was believed that the organization of delivery unit under ministry of education and delivery unit in each university were empowered to foster quality of graduates that secures job either by employment or by job creation. The partial restructuring of the delivery unit of each University was entitled to respond to the prioritized areas in quality teaching-learning processes, and assurance for program relevance of undergraduate programs (MOE, 2017). Accordingly, the endorsement of deliverology in Ethiopian higher education is to reverse the graduate unemployment crisis which is linked to the quality and relevance of the program, and the Graduate Mix Policy. Then, the government of Ethiopia took the initiative to translate the graduate employability plan in education sector development (ESDP V, 2016–2020) into action. Thus, the essence of deliverology in Ethiopia higher education is to ensure implementation of the fifth national education strategy for development program, ESDP-V (2016–2020). This program was planned to ensure graduate employability of 80 % within one year from the date of graduation (MOE, 2016).

However, in the last two decades, Ethiopian higher education is characterized by unexpected expansion and enrolment growth of students with the policy notion of graduate mix approach and program diversification without considering the country's economic backlog. Even though deliverology stresses a few qualities of input and process management, program relevance, and quality of the program itself in Ethiopian universities.

Methods

The study conducted an extensive literature review and recent empirical studies on Ethiopia's higher education expansion and its program diversification process for the higher education system. The researchers employed document surveys at the national level, Ethiopian ministry of education annual data of five years (2013–2017); policy documents and strategies, empirical studies and focus group discussions with the academic community of Ethiopian public universities. The rationale for this approach was to provide a general picture of realities on the ground and practical policy implications for future policy actions.

The results of the study were categorized into the potential patterns of higher education enrolment, graduate mix policies, institutional policy disparity, and program relevance directly linked to graduate employability, and practices which provided a basis for the data complementarities.

Results and Discussion
Graduate Mix Policy program diversification

Graduate Mix Policy and enrolment trends of the last five years (2013–2017) official data at Ethiopian Ministry of Education is evidence that expansion policy is going on. The data generated and computed from the Ethiopian Ministry of Education Annual Education Abstract (2017) depict

the realities of the Graduate Mix Policy exacerbating the science – engineering and technology enrolment beyond the market demand of the country.
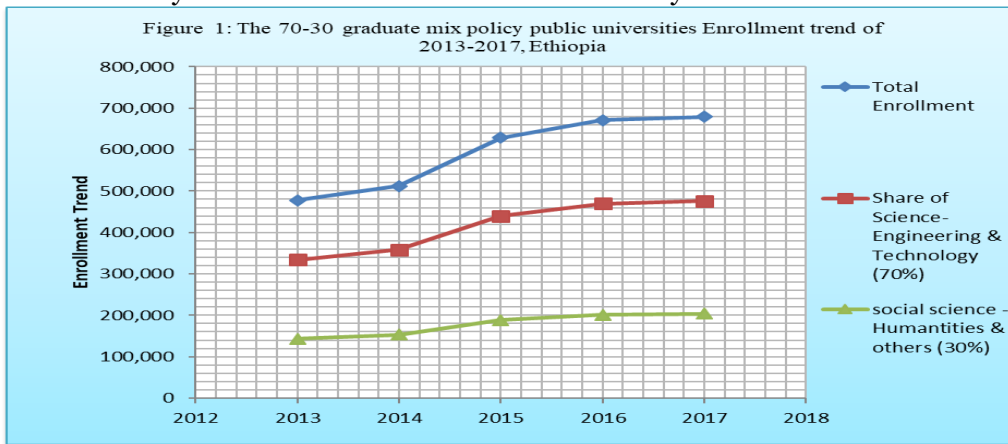

Fig. 1: Ethiopian higher education enrolment trend 2013–2017

Figure 1 shows the quantitative expansion of enrolment between 2013 and 2017. It shows the enrolment trends in science, engineering, and technology slightly increased from 2013 to 2014, and then sharply between 2014 to 2016. This essentially fulfilled the government Graduate Mix Policy premises of 70/30 student admissions to higher education.
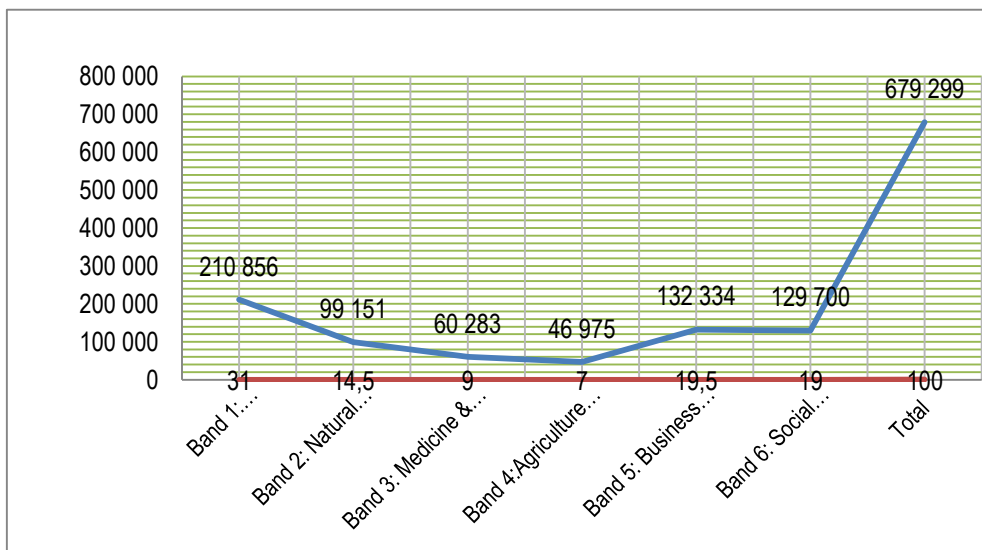

Fig. 2. Ethiopian public higher education undergraduate enrolment by band – 2017

Fig. 2 depicts that the Graduate Mix Policy of Ethiopian universities enrolment differentiated into different bands. From the total enrolment of students in public universities, 31 % of them joined engineering and technology, 14.5 % joined natural and computational sciences, 9 % joined medicine and health sciences, 7 % joined agriculture and life sciences, 19.5 % joined business and economics, and 19 % joined social sciences and humanities. Accordingly, the sum-up of students enrolled in science – engineering and technology (band1, band 2, band3, and band 4) account for 61.5 % while the sum-up of business and economics – social sciences and humanities (band 5 and band6) accounts for 38.5 %. Even though the differentiation of undergraduate program enrolments in Ethiopian universities attempted to balance manpower demands of the country, the enrolment in science – engineering technology is contrary to facts and figures of Ethiopian manpower demand with the existing economy.

Scenarios in a graduate unemployment crisis

The success of one university is measured by its quality education, program quality, and opportunity for graduate employment. In this regard assessing global and local manpower demands and designing reliable academic programs are the responsibilities of universities (Olkaba, 2015). On the other hand, the program quality should be assessed through a tracer study that shows where graduates are, indicates the graduates' profile, and their placement in the local and global job market. Further, the analysis of the evidence of the impact on students' knowledge, attitudes, beliefs, skills, and careers from global perspectives is a measure of graduate profile responding to the current global knowledge convergences. The response of **Participant 1** regarding graduate employment was as follows:

"We simply teach and graduate our students. We follow their academic completion according to their years of study and curriculum of their respective disciplines. So far no institutions are engaged in tracer study with clear policy direction to follow our graduate profile, whether employed at a local or global working environment. Because of Graduate Mix Policy, most students who graduate in engineering and technology erode the street in search of jobs. No need of researching the job security of graduates; you can hear from the family of graduates."

The participant reflection depicts the burden of Graduate Mix Policy suffering graduates of science-engineering and technology disciplines. On the other hand, some participants claim for the Ethiopian higher education expansion policy were as follows:

"Without any hesitation, the expansion of higher education has a lot of opportunities which can be explained in different dimensions. The current higher education expansion is addressing our country's educated manpower demand and fair disturbing of universities between regions and the provision of local higher education demands."

According to the views of these participants, the problem is not the expansion of higher education. It is possible to deduce from this argument that there is clear merit of higher education expansion. However, the challenge is the way Graduate Mix Policy endorsed without sufficient preparation and consensus among the implementers. Furthermore, regarding the outcome of the Graduate Mix Policy the participants had explicitly explained the realities on the ground as follows:

"There was an orientation when we took our first entry to our university how and why to assign the proportion of students as 70:30 ratios. During the orientation, some academic groups understood that the country's manpower demand dictated the government to develop the policy. Today it is referred to as 70:30 higher education admission policies. But within a short time, we are observing that there will be a mismatch between manpower demands in the intended ratio of graduates. For instance, for this year the Accounting Department of our university wanted to recruit lecturers who graduated with an MA degree in Accounting discipline and advertised in Addis Zemen two times and eventually didn't get any candidate. However, in the same university, in the Electrical Department vacancy advertised for the recruitment of lecturers 27 MSc graduates and more than 200 BSc graduates submitted their CVs to the Human Resources of our university. For further scrutiny, if we visit job seekers among others, at least 55% are graduates of engineering and technology. We cannot deny these realities; it is an implication of the 70:30 admission outcomes. On the other hand, even though not supported with statistical data, there are hearings of here and there on lack of social science teachers for secondary education. This is also one indication of the 70:30 outcomes."

These arguments confirm that there is a gap between the intention of endorsing program expansion and diversification process and having a clear policy and program relevance to make sure graduates will be employed by the local and global market.

Institutional policy disparities

The national development policy is rooted in agricultural led industrialization (ALI). The policy synopsis of ALI truly describes the realities of the Ethiopian stagnant economy. The country is technologically and economically underdeveloped, and on the other side, the country has well-resourced with fertile lands for agriculture and manpower to transform agriculture that would develop an economy which in turn promotes industrialization. Thus, to realize the national development policy, ALI, a qualified agricultural technologist with the relevant skill for national agricultural transformation should be expected to graduate from the universities.

Furthermore, the quality of Agricultural technologists must be with high-quality standards to create jobs and run their own business in agriculture. In short, the researchers' view is that until the country's economy is ready enough to start moving towards industrialization, the quality and quantity of students joining and graduating from Ethiopian universities in agriculture will determine the fate of ALI policy.

Acknowledgments

Conflict of Interest

The authors of the manuscript declare that there is no interest in conflict and all reference materials were dually acknowledged.

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