The Contribution of Credit Accumulation and Transfer System: Lessons to the Ethiopian National Qualifications Framework

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Abstract: Ethiopia is a developing country which aspires to become a middle income country by 2025. To realize this vision different development plans including the Growth and Transformation Plan and the Plan for Accelerated and Sustained Development to End Poverty have been developed. The first step toward supporting development plans through education is developing education and training policies, strategies and devices that aim to improve the knowledge, skills and competence of the society. In relation to this one of the instruments which have been used in several countries to enhance quality of education, promote recognition of qualifications and facilitate lifelong learning is National Qualifications Framework. This paper argues that, among others, well-designed and implemented credit accumulation and transfer system could support the Ethiopian National Qualifications Framework in achieving its purposes by facilitating quality assurance, recognition of prior learning, progression and transfer between institutions and education sectors, mobility and comparability and recognition of qualifications both at national and international levels.

Introduction

There is no single way to define qualifications framework, and finding an agreed upon definition is rather challenging and often a source of confusion. The definition of qualifications framework by the Organization for Economic Cooperation and Development (OECD) is the common and widely used one. OECD (2007) defines a qualifications framework as "an instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves or made explicit in the form of a set of level descriptors" (p. 22). However, we need to acknowledge that in different countries, qualifications framework is understood differently (Allais, 2011).

In many countries, National Qualifications Framework (NQF) has been seen as a useful policy instrument to improve the relationships between education and training systems as well as the labor markets and the education and training systems (Allais, 2011). Although the main purposes of NQF may vary from country to country, some of the common purposes include establishing standards of knowledge, skills and competence, facilitating comparability and recognition of qualifications, and enhancing access to and transfer of learning (Coles, 2006). The reasons for developing NQF may also vary slightly from country to country. Nevertheless, promoting lifelong learning, quality assurance, and recognition of

qualifications seem to be the main and general reasons that stand out from the others. Although studies indicate that there is lack of or little evidence that support NQFs are achieving their goals (Allais, 2011; Keating, 2011), many countries have introduced NQF believing that "NQFs can help to ensure that qualifications meet the country's economic and social needs, are of good quality, provide flexibility and progression for learners, and enjoy international recognition" (Tuck, 2007, p. 1).

The other issue that is often discussed in relation to qualifications framework is the scope of a qualifications framework which can be defined based on the types of systems that categorize the education and training system into three broad categories – tracked, linked and unified. "In a tracked system vocational and general education are organized in separate and distinctive tracks. A linked system has different tracks but emphasizes their similarities and equivalence, with common structures and elements, and opportunities to mix or transfer between the tracks. A unified system does not use tracks to organize provision but brings all provision within a single system" (Howieson & Raffe, 1999, p. 2). It is up to individual countries to select one of these systems depending on the general purpose and scope of the NQF.

"The scope of frameworks may be comprehensive of all learning achievements and pathways, or may be confined to a particular sector, for example; initial education, adult education and training or an occupational area" (OECD, 2007, p. 22). Regardless of their scope, however, all qualifications frameworks provide a foundation for enhancing accessibility, quality, mobility, and recognition of qualifications within and across countries. "The value of an NQF lies in its potential to contribute to policy goals such as lifelong learning, recognition of skills, or improving the quality of education and training" (Tuck, 2007, p. 5). If available, the NQF needs to take into consideration the Regional Qualifications Framework (RQF) (as the Southern African Development Community RQF) and/or the Continental Qualifications Framework (CQF) (as the European Qualifications Framework). RQF and CQF provide a seamless system of comparability and recognition of qualifications among member countries. This contributes to the internationalization and harmonization of education system and enhances the competitiveness of member countries in the global knowledge economy.

One of the main aspects in developing NQF is identifying and setting different qualification levels which describe the learner's expected learning outcomes in terms of knowledge, skills, and competence. The qualification levels vary from country to country. For example, France has five qualification levels; Denmark, Lithuania and Netherlands have eight qualification levels; Ireland, South Africa and Tanzania have 10 qualification levels; and Scotland has 12 qualification levels. However, most countries have either eight or 10 qualification levels. Despite the variation in levels, the general purposes of most NQFs are more or less the same.

Although the implementation of NQFs has begun in the late 1980, it became very popular in the mid-2000s. NQFs can be divided into three generations based on the extent of NQFs

introduction worldwide (Tuck, 2007). The first generation includes countries (e.g. Australia, New Zealand, Scotland, South Africa, and UK) which implemented NQFs between the late 1980s and the mid-1990s. The second generation includes countries (e.g. Ireland; Malaysia; Mauritius; Mexico; Namibia; Philippines) which implemented NQFs in the late 1990s and early 2000s. The third generation includes countries (e.g. Angola, Botswana, Brazil, China, Colombia, Tanzania, Turkey, Uganda, and most European countries) which have introduced NQFs since the mid-2000s. Based on this category Ethiopia belongs to the third generation.

Since the inception of the Bologna Process in the late 1990s, there are several studies which indicate various benefits of a credit system including facilitating mobility and comparability of qualifications. Studies also indicate some commonalities between credit system and qualifications frameworks such as enhancing mobility and contributing to lifelong learning and development of human resource. This in turn indicates that "credit systems and qualifications frameworks are interwoven" (European Centre for the Development of Vocational Training, 2010, p. 1). However, there is lack of scholarly works indicating how credit accumulation and transfer system (CATS) contributes to NQF in achieving its purposes. Therefore, the main purpose of this paper is to discuss the contributions of CATS to the Ethiopian National Qualifications Framework (ENQF). It argues that by facilitating quality assurance, recognition of prior learning (RPL), progression and transfer, comparability and recognition of qualifications, and national and international mobility, learner-centered CATS contributes to the ENQF in achieving its purposes. To better understand the issue under study, in the next two sections of the paper, a brief overview of the proposed ENQF and about CATS will be discussed. Subsequently, the potential contributions of CATS to the ENQF will be thoroughly discussed.

The Ethiopian National Qualifications Framework

The Ethiopian government has identified education as a key to various development plans of the country. However, as it is the case in many countries, there are several problems that hinder the contribution of the education sectors in the development of the country. Education related problems cannot be addressed through single policy, strategy, program, or instrument, and thus harmonized effects of all these are necessary to alleviate the existing and potential problems in the best possible way. As part of this strategy, in 2007 the Ministry of Education (MoE) of the Federal Democratic Republic of Ethiopia has sought the development of ENQF to address the need for better educated, highly skilled and motivated workforce. The Higher Education Strategic Center (now called Education Strategic Center) was mandated to facilitate the development and implementation of the ENQF in collaboration with the MoE and other national and international partners. Here, it is necessary to mention that prior to the ENQF, Ethiopia developed the Technical and Vocational Education and Training (TVET) Qualifications Framework in 2006 to define the value of qualifications, to ensure comparability of different qualifications, and to facilitate mobility within the TVET system (MoE, 2008c).

The ENQF is part of a wider national policy and strategy, and it cannot be isolated from other educational and economic plans and strategies that aim to enhance the dynamism and competitiveness of the country in the global knowledge economy. There are various models and approaches in the design and implementation of NQF in different countries. This is both an opportunity and a challenge for the ENQF. Therefore, both in the process of designing and implementing ENQF, it is crucial to take into consideration the country's agriculture-led economy, education system and vision to become a middle income country by 2025.

According to MoE (2008a), the main purpose of the ENQF is to (i) establish national standards of knowledge, skills and wider competence to ensure the relevance of qualifications to national economic and social needs; (ii) resolve the diversity of sectors and improve articulation and comparability between qualifications of different sectors; (iii) establish national quality standards and systems for quality assurance of providers, programs, delivery and assessment; (iv) establish clear progression pathways and facilitate procedures for access to learning and transfer and recognition of learning; and (v) provide a means to benchmark qualifications nationally and internationally.

Unlike some qualifications frameworks that focus on a particular education and training sector, the proposed ENQF is comprehensive including general education, higher education, and TVET. Experiences from other countries' NQFs indicate several benefits of adopting a comprehensive qualifications framework. Among the three types of system (tracked, linked, and unified), the ENQF seem to prefer a linked system (MoE, 2008a) in which different tracks exist with emphasis on similarities and equivalence, and opportunities to mix or transfer between the tracks. From various levels of qualification, ENQF adopted 10 levels of qualification which cover all education sectors (general education, TVET and higher education).

Credit Accumulation and Transfer System

Credit is understood as a measure of the volume of learning required for each qualification or part of qualification (South African Qualification Authority, 2013), and a credit system is a systematic way of describing an educational program by attaching credits to its components (European Commission, 2009). A credit system varies from country to country and region to region, and it may be based on different parameters, such as student workload or contact hours. As a framework, it has a set of specifications for measuring, describing and comparing learning achievements. As an accumulation and transfer system, credit is developed with the assumption that learning can be accumulated and transferred regardless of the place and type of education (Allen and Layer, 1995).

There are several CATS worldwide that are being used at national, regional and continental levels. At continental level, the European Credit Accumulation and Transfer system (ECTS) is the common and arguably the most successful CATS (Adamu, 2012). It served as a point of departure in building CATS in other regions, for instance, University Credit Transfer

System (UCTS) for the University Mobility in Asia and the Pacific (UMAP), and SICA *Sistema de Creditos Academicos* (System for Academic Credits) in Latin America. ECTS is "a learner-centered system for credit accumulation and transfer based on the transparency of learning outcomes and learning processes" (European Commission, 2009, 11). It is based on the workload students need to achieve the expected learning outcomes that a learner is expected to know, understand and be able do after successful completion of a process of learning (European Commission, 2004).

A credit system based on the contact hours whereby hours are allotted only for activities that require contacts between students and teachers (e.g. lecture) had long existed in the higher education system in Ethiopia. This credit system excluded the time that students spend on independent study such as reading, doing assignments, and preparing for exams. Moreover, contact hours-based credit system could not be applicable to most non-formal and all informal learning settings. To address this problem and also to facilitate the modularization in Ethiopian higher education institutions (HEIs), a credit system based on student workload has been introduced as of 2012 (Higher Education Strategic Center, 2012). International experiences and national contexts were taken into consideration when adopting the newly introduced Ethiopian Credit Accumulation and Transfer System. This learner-centered credit system includes contact hours (e.g. lectures and seminars), and time spent on independent study (e.g. doing assignments and preparing for exams) and workplace learning and training. This system is far better than the previous contact hour-based credit system as it provides a better way of quantifying the learning achievements.

Potential Contributions of CATS to the ENQF

Although this paper mainly focuses on discussing the contribution of a credit system to a qualifications framework, it is necessary to understand that a qualifications framework also makes the need for a credit system become increasingly visible. In some countries such as England, Northern Ireland, and Wales it seems not to be good to separately approach credit systems and qualifications frameworks. Thus, the NQF in these countries is replaced by a Qualifications and Credit Framework. This shows the strong relationship between credit system and qualifications framework.

NQF can adopt different philosophies and approaches, but it should focus on and prioritize the problems and specific needs of the country it serves. In the process of developing the ENQF and identifying its purposes, national contexts were taken into consideration. The following sub-sections discuss about how a credit system could contribute to the ENQF in achieving its purposes. The discussion is mainly based on the above mentioned purposes of the ENQF.

Quality assurance

Quality and relevance of education are among the major problems that the education sectors in Ethiopia are facing (MoE, 2008a). Low level of education quality is one the most

significant challenges manifested in all education sectors (general education, TVET and higher education), and this affects the recognition of qualifications by stakeholders. For instance, in the higher education sector there is lack of trust between public and private higher education providers regarding the quality of education which affects the recognition of qualifications. In this particular case the presumed comparatively low quality of education in private higher education seems to have affected the recognition of qualifications from private HEIs by public higher education providers, employers and the society at large.

There is a clear lack of systemic quality assurance process in all sectors of education in the country. Without a systematic quality assurance a qualifications framework cannot achieve its purposes. Developing and effectively implementing a quality assurance system at institutional, regional and national levels helps to ensure that required standards for a certain qualification are met. It also helps to enhance credibility, trust and confidence among stakeholders regarding qualifications. Ensuring quality not only develops trust between private and public education providers but also enhances the credibility of qualifications offered by an institution through different modes of study (regular, evening, summer and distance). By facilitating different qualifications framework activities and purposes such as comparability and mobility, CATS could make the need for quality assurance become increasingly visible. It also complements institutions' quality assurance tools by making learning components measurable and comparable (European Commission, 2009). Hence, it can be argued that by facilitating quality assurance CATS contributes to achieve one of the essential purposes of the ENQF, which is promoting the quality of education and training provision.

Recognition of prior learning

MoE (2008b) states that one of the main objectives of the Ethiopian Education and Training Policy (ETP) is "to produce a trained manpower at different level that will competently participate in the various economic political and social undertakings of the country" (p. 1). Moreover, enhancing the social and economic development of the country and participating in the competitive global market economy necessitates the contribution of all individuals. Achieving these purposes requires promoting lifelong learning which is defined as "all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment-related perspective" (European Commission, 2001, p. 9). This in turn necessitates the recognition of knowledge, skills and competence acquired at any stage of a person's life through all learning settings (formal, non-formal, and informal learning).

Recognition of Prior Learning (RPL) refers to the procedures and practices of assessing, valuing and recognizing learners' knowledge, skills and competencies acquired in the past through formal, non-formal, and informal learning. In developing countries like Ethiopia, where the formal learning alone cannot address the education and training needs of the society, the recognition of knowledge, skills and competence acquired through non-formal and informal learning settings becomes even more important (Molla, 2010). This contributes

both to ensuring equitable access to education and training and to enhancing the human resource development. So far, however, there seems to be a weak link among the three forms of learning, and this makes difficult the recognition of learning achievements acquired through non-formal and informal learning that contributes to the ultimate goal of the proposed ENQF which is developing human resource in the country.

In practice, in addition to lack of cooperation among education and training providers, and perceived poor quality and relevance of education and training, lack of an established system seems to be the main challenge for the recognition of knowledge, skills and competencies acquired outside the formal learning setting. Hence, there should be a system in practice that enables to recognize, for example, the knowledge that a learner acquired through attending alternative basic education (non-formal learning) and to easily compare with and transfer to the general education (formal learning). Without such approach it is not possible to promote lifelong learning, which is one of the general purposes of the NQF. The conceptual framework for the development of the ENQF supports this approach as its underlying philosophy advocates that "all learning can be assessed and certified regardless of when and how it took place" (MoE, 2008a, p. 66). However, it seems to have put little emphasis on informal learning and RPL. This may be because of two reasons. First, different educational plans, strategies, and instruments are developed often based on the ETP, and ENQF is no exception. The ETP hardly addresses informal learning and RPL, and this seems to influence the emphasis given to informal learning and RPL in the ENQF. Second, assessing and recognizing prior knowledge, skills and competence acquired through informal learning is costly and challenging (Molla, 2010). The global inventory on NQFs also found that accrediting prior learning and integrating qualifications acquired outside formal learning and training is very challenging during implementation (UNESCO, 2013). However, it is not impossible and allocating credits to the learning acquired through non-formal and informal learning facilitates the RPL (Souto-Otero, 2013). Several research and reports also assert the significant contribution of CATS to enhance the RPL and lifelong learning (Adamu, 2012; Molla, 2010; European Commission, 2009) and widen access to the workplace. Hence, one can argue that by facilitating RPL, CATS contributes to open up opportunities both for lifelong learning and for the labor market which are some of the issues that the ENQF needs to address.

Progression and Transfer

The organizing principle of the ENQF is based on the assumption that "Frameworks provide learner-centered systems in which there are no barriers to progression other than the learner's own performance" (MoE, 2008a, p. 66). Such a principle promotes progression and transfer between and within institutions and education sectors. Although progression pathways within a single educational sector (e.g. higher education) seem to be easy to develop and maintain, it is very complicated and challenging to develop and maintain an overarching progression pathways in the ENQF that covers the three education sectors (UNESCO Institute for Lifelong Learning, n.d). In the current Ethiopian education context, although there is a relatively easy transfer between private and public general education sector, there is no

transfer between private and public higher education sector at all[1]. The transfer between general education (mainly preparatory education) and TVET and between TVET and higher education is also very limited. This is mainly because there is a lack of proper coordination among stakeholders and a lack of system in practice that allows the learning achieved in one sector or level of education to be recognized in another. This forces learners to re-learn what they already know and experienced. It is also one of the factors that impede lifelong learning opportunity which paves the way for effective human resource development.

The ENQF is designed to include both academic and vocational qualifications in a single framework. It clearly stipulates how one can progress across academic and vocational fields, and progress through levels of the NQF. One of the systems that facilitate such progresses and transfer between different education sectors is CATS. This is because a learner-centered credit system can facilitate easy progress and transfer within and between education sectors by providing "a way of quantifying the learning to be transferred or recognized [...and allowing] the amount of time required for the learning to be described and compared" (MoE, 2008a, p. 26).

The ENQF indicates that despite lack of flexibility in the current system, "credit transfer and other mechanisms for enhancing lifelong learning are not strongly identified as either key benefits or key priorities" (MoE 2008a, p. 53). This shows that stakeholders seem to have overlooked the contribution of credit system, and this may be because of how and for what purpose the previous and long existed credit system has been used in the country. Studies indicate that by facilitating transferability, comparability and recognition of qualifications, CATS could promote lifelong learning and enhance the establishment of a flexible learning pathway (Adamu, 2012; European Commission, 2001) which are essential to develop individuals who become entrepreneurs and can easily fit to the knowledge-based labor market.

Mobility and comparability and recognition of qualifications

As mentioned above the NQF needs to emphasize and prioritize addressing national needs and problems. In addition, in order to increase the country's competitiveness in the global knowledge-based economy, it also becomes necessary to compare the national standards and qualifications with the international standards and qualifications. In order to enhance comparability of qualifications and mobility of learners and labor within the country and across borders, and also to facilitate mutual recognition of qualifications, the NQF needs to be aligned with international qualifications frameworks (e.g. RQF and CQF).

Lack of recognition of prior studies and qualifications, poor quality of education, and lack of appropriate regulatory mechanisms are some of the challenges facing the education sector in

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[1] This refers to lack of opportunity to transfer credits accumulated in private higher education institution to public higher education institution and vice versa. It does not refer to the recognition of qualifications obtained in either of the institutions.

most African countries, and thus affect the mobility within and across the countries (Adamu, 2012). Since its foundation, UNESCO has carried out several activities to facilitate academic mobility. The adoption of the five regional conventions, including the Arusha Convention in Africa in 1981, is part of UNESCO's effort in promoting academic mobility (Beridze, 1998) by recognizing studies and qualifications across borders. Students often decide to study abroad if they think the institution provides quality education, and if what they learn and achieve will be recognized by their home institutions or national education system (Adamu, 2012). By enabling the transfer of credits awarded in one program or institution to another program or institution, and by promoting quality assurance, CATS could facilitate an easy comparability of qualifications and academic and work-related mobility within and across countries.

Conclusion

The ENQF may not be able to achieve its all purposes in a short period of time because of the broad education related problems in the country. Thus, in the implementation process it is necessary to prioritize the purposes of the NQF based on the social and economic priorities of the country. It is also necessary to identify systems and activities that facilitate and contribute to the ENQF in the process of achieving its purposes. Clearly one could argue that by facilitating quality assurance, RPL, recognition of qualifications, progression and transfer between institutions and education sectors, and national and international mobility, CATS could play a significant role in achieving the purposes of the ENQF. Here it should be noted that CATS alone cannot facilitate various activities that contribute to achieve the purposes of the ENQF. There should be cooperation and trust among stakeholders regarding provision and quality of education and recognition of qualifications. Different policies, strategies, and programs need also to recognize and promote different forms of learning that enhance lifelong learning which is at the center of the general purpose of the ENQF. In relation to this, the Ethiopian education system advocates lifelong learning and this cannot be achieved without putting coordinated and exerted efforts on recognizing prior learning acquired in various settings and widening access to learning opportunities. Therefore, despite the challenges, the ENQF needs to put emphasis on integrating informal learning and promoting RPL. In this regard, CATS provides a flexible basis for lifelong learning, and promotes establishing all-inclusive ENQF by lessening challenges for the recognition of knowledge, skills and competence in a range of places and ways.

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