The Role of Higher Education in Achieving Uganda Vision 2040

Wilson Mugizi
Faculty of Humanities and Education, Kampala International University (Western Campus).

ABSTRACT
The Uganda Vision 2040 is a blueprint identifying the development paths and strategies to operationalise Uganda’s Vision statement which is to transform Uganda from a peasant to a modern and prosperous country within 30 years. The vision aims at transforming Uganda from a predominantly peasant and low-income country to a competitive upper-middle-income country. This paper explored how higher education can contribute to the achieving of the Uganda Vision 2040. The findings indicated that higher education influences development of improved technology, knowledge transfer, promotes national unity, promotes democracy, supports innovation and increases productivity which are all important if Uganda is to achieve the Vision 2040. Thus, this paper suggests that for higher education to contribute to the achieving of Uganda Vision 2040, it is necessary for the government of Uganda to engage higher education in the process of implementing the vision 2040. The government of Uganda also needs to support institutions of higher education such that they are able to develop the capacities they need to be able to help the country achieve its Vision 2040.

1. Introduction
Higher education is an important form of investment in human capital development which through specialised knowledge it offers makes the necessary contribution, in concert with other factors, to the success of national efforts to boost productivity, competitiveness and economic growth (Fagoyinbo, 2013). For African countries where growth is essential if they are to climb out of poverty, education is particularly important. However, whereas development agencies have placed great emphasis on primary and recently secondary education, they have neglected tertiary education as a means to improve economic growth and mitigate poverty (Bloom, Canning, Chan & Luca, 2014). Universities have thus continued to struggle under the burden of reduced funding and increasing expenditure occasioned by increased enrolment (Otieno, 2013). However, if universities have been founded on the activities of teaching (first mission) and research (second mission), the application and exploitation of university knowledge outside academic environments, and then interactions between universities and society is their third mission (Rinaldia & Cavicchia, 2016). Trencher, Yarime, McCormick, Doll and Kraines (2014) infer from the African proverb: If you want to go fast, go alone. If you want to go far, go together. They explain that the proverb points to the world of the emergence of an entrepreneurial university, a ‘third mission’ of contributing to economic development that has emerged alongside the ‘first mission’ of teaching and the ‘second mission’ of conducting basic research. Trencher, Bai, Evans McCormick and Yarime (2014) indicate that in the contemporary world there has emerged the global proliferation of cross-sector university partnerships due to the knowledge economy. Intimate university-industry relations in many partnerships have spread due to the entrepreneurial university and technology transfer activities, that is, the ‘third mission’ for the university. As knowledge-producing institutions, universities are now widely positioned as engines of economic growth.

2. Historical Perceptive
2.1 The state of Higher Education in Uganda. The genesis of university education in Uganda is traced to the inception of Makerere University in 1922 (Nabayego & Itaaga, 2014) as a technical college to train African carpenters, construction workers and mechanics. In 1950, Makerere was elevated to a university-level institution whose degrees were granted by the University of London. Upon the independence of Uganda, in 1963 Makerere was reconfigured as one of three colleges constituting the University of East Africa joining its young sister colleges in Dar es Salaam and Nairobi. The loose federation ended in 1970 when it became an autonomous national university (Sicherman, 2008). Until 1988 when Islamic University in Uganda came on board, higher education in Uganda was entirely a public venture and Makerere University as the only public university at the time almost had monopoly over the higher education market but deregulation as part of the restructure adjustment measures of the 1990s ushered in a host of private universities to meet a pent-up demand for higher education. The growth in the sector has been nothing short of phenomenal (Olweny, 2011). Jacob, Nsubuga and Mugimu (2009) report that today hundreds of colleges in Uganda make up a major part of the human resource development in all regions of the country. The colleges range from private colleges with nothing more than one or two rented classrooms in an office building to HEIs that comprise large campuses with thousands of enrolled students. However, still future expansion of higher education institutions (HEIs) at all levels will be required to meet the growing demands.

2.2 Uganda Vision 2040. Uganda in April 2013 launched the Uganda Vision 2040. The theme is to transform the Ugandan society from a peasant to a modern and prosperous country...
within 30 years. For instance, with 2010 as the baseline and 2040 as the target year, the vision seeks to increase per capita income from $ 506 to $ 9500; percentage of population below the poverty line from 24.5% to 5%; reduce sectoral composition of GDP which is reliant on agriculture from 22.4% to 10%; increase industry from 26.5% to 31%; services from 51.2% to 58%; and reduce labour force distribution in line with sectoral contribution in agriculture from 65.6% to 31%; increase industry from 7.6% to 26% and services from 26.8% to 43%. The vision also helps to increase the share of national labour force employed from 70.0% to 94%; manufactured exports from 4.2% to 50%; gross capital formation of GDP from 24.1% to 30%; saving of GDP from 14.5% to 35%; ICT goods and services total export from 0% to 40%; technology up-take and diffusion (Technology Achievement Index [TAI]) 0.24% and 0.5% (Rwendeire, 2012). The vision also mentions the attainment of a more democratic political dispensation as a goal (Kayizzi-Mugerwa, 2013); increasing life expectancy; reducing infant and maternal mortality rate; reducing population growth; literacy rate and reducing corruption (Rwendeire, 2012); among others. The opportunities for harnessing is to exploit country’s enormous opportunities in; oil and gas, tourism, minerals, ICT business, youthful labour force, geographical location, fresh water resources, industry and agriculture. Strengthen infrastructure, science and technology, engineering and innovation, and human resources (Kayizzi-Mugerwa, 2013).

3. Literature Review

3.1 Theoretical Review. The early German theorist of the political economy of development, Friedrich List (1789 - 1846) argued for education and education institutions to play a role in national development. This concern was taken up very clearly in the Innovation Systems (IS) approach (Kruss, McGrath, Petersen & Gastrow, 2015). During the 1980s and 1990s, the systems of innovations approach (Edquist 1997) or the national systems of innovation model as Lundvall (1992) called it, was developed to better grasp the processes through which scientific knowledge is produced and transferred to businesses to improve their competitiveness and develop national and/or regional economies. The IS approach postulates that the ability of businesses to be competitive increasingly depends on their capacity to apply new knowledge to their products and processes. IS approach suggests that first, there should be production and dissemination of scientific and technological knowledge in interactive process of many types of actors such as businesses, private and public laboratories and universities (Albert & Laberge, 2007). The character and outcomes of interactions determine how and to what extent goals can be attained (Johnson, 2007). IS approach indicates that innovations are characterised by fundamental uncertainties, chaos, unintended consequences, conflicts and unpredictable trajectories of change which cannot be understood from a reductionist perspective or for that matter, from the perspective of direct cause-effect relations that seem to be at the core of former problem-solving approaches (van Mierlo, Arkesteyn & Leeuwis, 2010). IS approach propounds that innovation is a collective undertaking in which knowledge is shared. Knowledge is an economic activity; its distribution helps in attainment of economic goals (Manley, 2002). Therefore, interaction of higher education and government agencies can lead to knowledge sharing and this will lead to the in achieving Uganda Vision 2040.

3.2 Higher Education and Uganda Vision 2040. The third stream (mission) of universities activities is concerned with the generation, use, application and exploitation of knowledge and other university capabilities outside the academic environment (Lebeau & Cochrane, 2015). The rise of the knowledge economy has thus posited a new conception of the role of Higher Education Institutions (HEIs) in the development of the area on which they are embedded. International policymakers, such as the OECD and the European Union have put forward the need for universities to create networks with businesses and governments, in order to favour the knowledge flow (Rinaldi & Cavicchi, 2016). The role of higher education in achieving national development includes: Scientific advisory/ communicator role, that is higher education actors can be used to disseminate pilot or research projects results and advise on the appropriate course of action (Rinaldi & Cavicchi, 2016). Higher education can play the inventor/ innovator role through involvement in creation and diffusion of cutting-edge technologies and innovative ideas. Higher education actors also can play the revitalising /retrofit role that is working with external developers and authorities to improve existing infrastructures rather than pursuing new development (Mirirai, Dawson & Hoven, 2012). Higher educationists can play the developer role by helping in the designing of new development infrastructure and construction. Higher educationists can also carry out the director/ linker role by which academics create a grand vision for the future and seek its materialisation by leveraging other partners’ assets and know-how. They can other actors by creating networks into which they feed intelligence and guidance. On the other hand, higher educationists can play the facilitator/ empowering role whereby they can attempt to unleash change by empowering key stakeholders to self-diagnose problems and create conditions that will lead to a self-realised transformation (Rinaldi & Cavicchi, 2016).

Scholars (e.g. Atchoarena & Holmes, 2005; Bloom et al., 2014; Castelló-Climent and Hidalgo-Cabrillana, 2012; Chang, Azizan & Amran, 2014; Diagne & Diene, 2011; Ferretti & Parmentola, 2015; Fleisher, Hu, Li & Kim, 2011; Hashim & Tan, 2009; Kostoglou & Siakas, 2012; Lester, 2005; Mercana & Sezer, 2014; Nicolae & Vitelar, 2016; O’Carroll, Harmon & Farrell, 2006; Otieno, 2014; Pillay, 2011; Preece, 2011; Rinaldi & Cavicchi, 2016; Tafese & Desta, 2014; Vasilidiass & Poulios, 2007) reveal the role higher education can play that can enable achieving of Uganda Vision 2040. Atchoarena and Holmes (2005) revealed that universities potentially make a greater contribution to the prospects of depressed, relatively neglected rural communities by forging new partnerships with schools, academia and rural space stakeholders; expanding their representation in governance; and holding continuous dialogue with policymakers. In addition, higher education institutions provide access to lifelong learning to rural people. Bloom et al. (2014) reported that tertiary education improved technological catch-up helping to maximize Africa’s potential to achieve more rapid economic growth. Accordingly, education had the potential to improve technological catch-up. Higher education produced graduates aware of and better able to use technologies. They were also more likely to develop new tools and skills themselves. Their knowledge could also improve skills and understanding of non-graduate co-workers, while the greater confidence and
know-how inculcated by advanced schooling may generate entrepreneurship, with positive effects on job creation.

Castelló-Climent and Hidalgo-Cabrillana (2012) indicated that education affects economic growth by increasing the extensiveness and expanding access to more agents as well as the intensiveness and increasing the investment made by each agent of the accumulation of human capital beyond primary education. Educational plays a central role in the composition of human capital and in the long-run level of income. Chang et al. (2014) found out that a more interactive and proactive way of teaching and learning in university courses ensured that good policies/concepts/ideology were introduced towards promoting national unity. In pluralistic societies universities could play an important role in promoting national unity as well as to world peace. Diagne and Diene (2011) established that educated people were more productive because they had a high level of human capital and technical progress because higher education led to a greater ease of adaptation or development of new technologies. Higher education in a knowledge economy reduced the technological gap between rich and poor countries by promoting the adoption, imitation and creation of new technologies. Ferretti and Parmentola (2015) reveal that universities help to adapt knowledge originating elsewhere to local conditions; integrate previously separate areas of technological activity in the region; and unlock and redirect knowledge that is already present in the region but not being put to productive use. Fleisher et al. (2011) found out that highly educated workers in cities that were more economically advanced were significantly more productive. The direct effect of education on production had a positive and significant effect on total factor productivity growth for firms.

Hashim and Tan (2009) showed that university education could enable students to possess a greater sense of ethnic understanding and appreciation with a curriculum that empathises critical inquiry and deliberation of ethnic issues. Kostoglou and Siakas (2012) with regard to entrepreneurship that is considering the motivation to start a business, the process through which a business is started and financial issues concerning the start-up, the degree grade and acquisition of a postgraduate degree had a significant effect. Lester (2005) reported that universities enhance innovation not only through their own discoveries but also help to attract new knowledge resources from elsewhere. Mercana and Sezer (2014) revealed a positive relationship between education expenses and economic growth in the Turkish economy for the period 1970-2012. Universities led to increased transfer of opportunities of knowledge production, sharing and manufacturing process. Nicolae and Vitelar (2016) reported that higher education was one of the key drivers of education because not only did it generate but also transferred knowledge to society. The ability of higher education to communicate, share and innovate was critical in order to meet the challenges of the knowledge society.

O’Carroll et al. (2006) presented a substantial body of international evidence that demonstrated a measurable beneficial impact of investment in higher education on the economy and society. They revealed that a higher education system which is strongly research and innovation oriented has the potential for mutually beneficial interaction with the enterprise sector. Universities’ economic impact is in equipping students with the ability to generate new ideas.

Companies benefit by hiring graduates with knowledge and research skills. University graduates help firms become more efficient and productive, and help them to introduce new products and processes. The stream of new ideas and technologies stemming from universities translate, when its economic impact is measured through the dynamic approach, into an appreciable growth in GDP and employment. Furthermore, since university research accelerates at least the development of new products, countries that supported it secured a favourable position in a knowledge-intensive, globally competitive marketplace. An institution’s economic impact takes many forms. University faculty lend their expertise to area companies, government agencies and non-profit organisations. Increasingly they collaborate directly with businesses large and small to commercialise products and processes developed in research, using a variety of technology-transfer models. Otieno (2014) revealed that higher education fosters national unity by changing people’s attitudes and developing positive mindsets towards each other and various ethnic diversities. Also, higher institutions contribute substantially in buttressing a democratic political system that is issue-based, people centred, result-oriented and accountable to the public by providing the intellectual citadel where political discourse occurs and ideologies pertinent to policy formulation are generated.

Pillay (2011) established that universities provide an important role as a public space for ongoing conversations involving local industry practitioners about the future direction of technologies, markets and local industrial development. This public space involves meetings, conferences, industrial liaison programmes, standard forums, entrepreneur/investor forums, visiting committee discussions of departmental curricula, and so on. The conversations between university and industry people that occur in these spaces often generate ideas that later become the focus of problem solving both in industry and in universities. Tertiary education can also have less direct benefits for economies. Preece (2011) in a study in Lesotho found out that a member of staff of the National University of Lesotho’s had founded a self-help community organisation that was looking after orphans and vulnerable groups. Agricultural, craft and livestock projects were supporting the basic needs of some families including advocacy and support for people living with HIV and AIDS. The study also found out that university academic staff in collaboration with other professionals guided Lesotho old citizen under old age pension on how utilise their funds which led to a range of activities such as health checks (blood pressure and blood sugar levels), saving plans and crime prevention to take place. Rinaldi and Cavicchi (2016) showed that a university is able to manage multiple stakeholders and to leverage interdependencies with local stakeholders through involving participants, raising issues and discussing with them the implications of applying new concepts, tools and how to make the most out of best practices presentations.

Tafese and Desta (2014) assessed the role of civics and ethical education in shaping the attitude of students. The study established that civics and ethical education in universities inculcates core values, social and cross-cultural skills that are critical for character and citizenship development producing rational and ethical citizens who participate in affairs of their community in particular and nation in general. Civic and ethical education in universities prepares students for responsible citizenship and effective
participation and makes them to involve in activities that promote and demonstrate good citizenship, community service, and personal responsibility. Teferra (2014) indicates that higher education by producing well-trained teachers can enhance the quality of primary and secondary education and give graduates greater opportunities for economic advancement. By training doctors and other health workers, it can improve a society’s general health, raising productivity at work. By nurturing governance and leadership skills, it can provide countries with the talented individuals needed to establish a policy environment favourable to growth. Vasiliadis and Poulions (2007) established that higher education positively assisted graduates to set up self-employment with the graduates of higher education being associated with high rates of self-employment.

4. Methodology

The paper was based on content analysis research design. Content analysis research design is a detailed and systematic examination of the contents of a particular body of materials for the purpose of identifying patterns, themes or biases (Leedy & Ormrod, 2001). Content analysis is a method of analysing written and other messages in a systematic and objective way to describe phenomena. Content analysis helps in analysing documents and allows the researcher to test theoretical issues to enhance understanding of the data. Through content analysis, it is possible to distil words into fewer content related categories. The aim is to attain a condensed and broad description of the phenomenon, and the outcome of the analysis is concepts or categories describing the phenomenon (Elo & Kyngäs, 2008). Content analysis reviews forms of human communication including books and newspapers, and films as well as other forms in order to identify patterns, themes or biases (Williams, 2007). The method enabled obtaining of information in less time and efficient way because of availability of documents. Basing on thematic analysis, emerging themes were categories for analysis involving careful, more focused re-reading and review of the data (Bowen, 2009). Using content analysis, the researcher identified patterns and themes in existing literature on how higher education can be brought on board in order to achieve Uganda vision 2040. The findings were based on synthesis from multiple studies and reports. Using the studies and reports a systematic evaluation was carried out to relate data to the context. Data were summarised making meanings for presentation of the findings.

5. Findings

Presentation, analysis and interpretation of multiple sources on the role of higher education in Presentation, analysis and interpretation of multiple sources on the role of higher education in realising of development goals of nations revealed that higher education influences the development of improved technology necessary for development of a country. This is done through a deliberate set of science and technology policy for higher of education institutions aimed at promoting the development of a national system of innovation, prioritising larger science, technology transfer and the growth of niche competences and capabilities. Higher education makes technological innovations aimed for transferred to small scale enterprises (Kruss et al., 2015). Higher education also leads to knowledge transfer. This is possible if formal strategies are introduced to facilitate research and transfer process. Allocating human resources for linking the transfer can be established. The human resource should review current research and teaching policies in creating the research and transfer link. There should also be review of staff recruitment and development strategies at regular intervals such that for example, research staff job descriptions can be changed to include teaching duties. The learning environment should also be improved to make effective use of advanced technologies, creating and maintaining interactive forums, both physical and virtual (Senaratne & Amaratunga, 2008).

Higher education also promotes national unity necessary for achieving national development. This is because higher education integrates nationals from diverse ethnic groups in a country. Higher education creates a national language through which the learners are taught and communicate with each other which plays a significant role in fostering and integrating unity in higher education institution. The integration also leads to the emergence of national identity among the multi ethnic communities on campus (Yaacob et al., 2011). In higher education institutions there can also implementation of a civilisation dialogue for shaping a one kind culture reminding students of the importance of achieving national unity. A civilisation dialogue is very important mechanism for strengthening national unity that is more educational, systematic and suitable for a multi-cultural nation (Chang, Azizan & Amran, 2014). In relation to the above, higher education promotes democracy. This is possible if it is ensured that values of peace, conflict prevention and resolution as well as the right attitudes, behaviours and ethics are inculcated in students and staff. These are attitudes favourable to an open democratic society. Therefore, higher education can help to foster democratic values amongst those in the higher institutions of learning (Preece, 2011).

Still, higher promotes community work that facilitates development. This is possible if higher institutions of learning refocus their research and teaching missions to transform and revitalise the relationship between higher education and national development needs. Higher education activities can be aligned to community services through a cluster of activities that include service learning, problem-based teaching and research that addresses specific wants and needs of a community. This means that there has to be a process of creating a shared vision between community needs and higher education institutions. Higher institutions of learning activities should be associated with doing public good (Preece, 2011). Another significant contribution of higher education institutions is that they provide access to lifelong learning to rural people. Educational institutions can promote the conditions for wider and successful adult participation in learning and training activities, providing learning opportunities related to their needs and removing existing barriers, such as time and finance constraints. The adult learner should be placed at the centre of the learning process that must be understood as an inclusive process covering multiple objectives and responding to different motives for learning underpinned by professional, personal or social reasons (de Oliveira Pires, 2009).

Further, higher education supports innovation. Higher education institutions can turn their researches and production of knowledge into innovation. This can be through is applying them in a new and novel manner that creates new outcomes and the intellectual property that accompanies such innovations. This adds value to industry and the economy. Higher institutions of learning can orient themselves to the national innovation system which both positions knowledge
as the key factor of economic growth and sees the main purpose of knowledge as contributing to such growth (Blass & Hayward, 2014). Another imperative role of higher education is that it can lead to a country’s realisation of its vision through its ability to increase productivity. Higher education leads to the accumulation of skills that make workers more systematic and dynamic in performing their chores, thus leading to productivity. The skills can be either job specific or broad skills relevant in improving productivity (Arshad & Ab Malik, 2015). Therefore, higher education institutions can plan to offer those skills necessary for realising a country’s vision. Last but not least, higher education plays a central role in the composition of human capital and in the long-run level of income. This is because higher education produces more skilled and productive workers. Innovation in education plays an important role in determining the quality of human capital. Higher education can be organised to trains future leaders prepared to lead the country in every aspects of the economy.

6. Discussion

This section discusses the findings from review of the various empirical studies. The findings indicated that Higher education influences the development of improved technology necessary for development of a country. This finding support the finding by Rinaldi and Cavicchi (2016) that tertiary education improves technological catch-up helping to maximise the potential to achieve more rapid economic growth. Rinaldi and Cavicchi (2016) reported that tertiary education improves technological catch-up helping to maximise the potential to achieve more rapid economic growth. Similarly, Diagne and Diene (2011) revealed that higher education in a knowledge economy may reduce the technological gap between rich and poor countries by promoting the adoption, imitation and creation of new technologies. Consistent with the above, Pillay (2011) indicated that higher education has the potential to improve technological catch-up because higher education institutions produce graduates aware of and better able to use technologies. They are also more likely to develop new tools and skills themselves. Their knowledge can also improve skills and understanding of non-graduate co-workers. On the other hand, higher education leads to knowledge transfer. In agreement, Mercana and Sezer (2014) state that universities lead to increased transfer of opportunities of knowledge production, sharing and manufacturing process. Concurring with the above, O’Carroll et al. (2006) indicate that university faculty lend their expertise to area companies, government agencies and non-profit organisations. Increasingly they collaborate directly with businesses large and small to commercialise products and processes developed in research.

Likewise, Rinaldi and Cavicchi (2016) showed that a university is able to manage multiple stakeholders and to leverage interdependencies with local stakeholders through involving participants, raising issues and discussing with them the implications of applying new concepts, tools and how to make the most out of best practices presentations. On their part, in agreement Nicolae and Vitelar (2016) established that the ability of higher education to communicate and share knowledge is critical in order to meet the challenges of the knowledge society. The findings also revealed that higher education promotes national unity necessary for achieving national development. This finding agrees with the finding by Otieno (2014) that higher education fosters national unity by changing people’s attitudes and developing positive mindsets towards each other and various ethnic diversities. On their, Chang et al. (2014) indicated that universities by using a more interactive and proactive way of teaching and learning in university courses ensured that good policies/ concepts/ ideology were introduced towards promoting national unity. Universities thus could play an important role in promoting national unity as well as to world peace.

Relatedly, Hashim and Tan (2009) showed that university education could enable students to possess a greater sense of ethnic understanding and appreciation with a curriculum that empathises critical inquiry and deliberation of ethnic issues. Furthermore, higher education can help to promote democracy requisite for national development. In line with this, Otieno (2014) reported that higher education institutions contribute substantially in butressing a democratic political system that is issue-based, people centred, result-oriented and accountable to the public by providing the intellectual citadel where political discourse occurs and ideologies pertinent to policy formulation are generated. On their part, Tafese and Desta (2014) established that civics and ethical education in universities inculcated core values, social and cross-cultural skills that are critical for character and citizenship development producing rational and ethical citizens who participate in affairs of their community in particular and nation in general. Civic and ethical education in universities prepares students for responsible citizenship and effective participation and makes them to involve in activities that promote and demonstrate good citizenship, community service, and personal responsibility. Higher education also promotes community work that facilitates development. This observation concurs the finding by Preece (2011) who revealed that in a member of staff founded a self-help community organisation that was looking after orphans and vulnerable groups. Also in collaboration with other professionals, academic guided Lesotho old citizen under old age pension on how utilise their funds that led to a range of activities such as health checks (blood pressure and blood sugar levels), saving plans and crime prevention to take place. Consistent with the above, Atchoarena and Holmes (2005) revealed that universities potentially make a greater contribution to the prospects of depressed, relatively neglected rural communities by forging new partnerships with schools, academia and rural space stakeholders; expanding their representation in governance; and holding continuous dialogue with policymakers. In addition, higher education institutions provide access to lifelong learning to rural people. Another way higher education contributes to the realisation of a country’s vision if through supporting innovation.

In line with the above, O’Carroll et al. (2006) state that a higher education system that is strongly innovation oriented has the potential for mutually beneficial interaction with the enterprise sector. The universities’ economic impact was in equippings students with the ability to generate new ideas. Companies benefit by hiring graduates with knowledge and research skills. University graduates help firms become more efficient and productive, and help them to introduce new products and processes. Consistent with the above, Pillay (2011) identifies a number of ways through which they contribute to innovation. Accordingly, universities enhance innovation not only through their own discoveries but also help to attract new knowledge resources from elsewhere. Universities help to adapt knowledge originating elsewhere to
The government of Uganda also needs to support the institutions of higher education such that they are able to develop the capacity they need to be able to help the country achieve its Vision 2040.

References


