The Need for Entrepreneurship Education to achieve MDGs in developing countries: the case of Sudan
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1. Introduction
Sudan is endowed with valuable natural resources. This includes valuable mineral resources such as petroleum, natural gas, gold, silver, chrome, asbestos, manganese, gypsum, mica, zinc, iron, lead, uranium, copper, kaolin, cobalt, granite, nickel and tin. In addition to this, Sudan is endowed with a wide cultivatable land suitable for agricultural production. The total arable land was estimated at around 200 million feddan only quarter of it is cultivated every year (Central Bureau of Statistics 2010) In spite of these abundant and valuable resources, Sudan is among the poorest countries in the world with very low record in most of the human development indicators. It is clearly state of government and society failure to properly utilize its abundant resources for the benefits of its people. Since its independence in 1956, many attempts have been undertaken to utilize these resources and improve the welfare state of Sudanese people. As in the case of many previous economic plans from 1960s to 2005.

In the year 2000, Sudan signed the Millennium Declaration together with 189 member states of the United Nations. The Millennium Declaration aimed at improving the status of the basic needs and conditions of human development in the member states. To this end, the governments of the member states declare their commitment to work together toward achieving eight time-bound development goals. These are: eradication of extreme poverty and hunger, achievement of universal primary education, promotion of gender equality and empowerment of women, reduction of child mortality, improvement of maternal health, combating HIV/AIDS, malaria, TB and other diseases and ensuring environmental sustainability. For each goal a number of targets were specified and for each target a number of quantitative indicators were identified as well. The year 2015 was earmarked as the last year of a timeframe for achieving the specified targets from their initial values in the year 1990 (National Population Council General Secretariat 2010).

Since 2000 Sudan has been endeavoring very hard to meet its commitment towards MDGs. In line with that, the government signed the Comprehensive Peace Agreement (CPA) in 2005 with SPLA ending the longest war in Africa. Following the CPA the Sudan Launched the Joint Assessment Mission (JAM) the Five-Year Development Plan (2007-2011) together with many development programs
supported by the international community. The intention of the government was to attain some progress towards MDGs. In spite of all these efforts, the welfare of the Sudanese have not really been improved according to the evidence from reliable socio-economic data. In their assessment for the progress towards achieving MDGs the National Population Council (2010) has found that Sudan was far from achieving the MDGs. Some progress have been achieved in some goals but still were not in line with the targeted plan. Although only two years are left for the declaration deadline, there is little hope that Sudan will meet its MDGs commitment.

The present paper aims to review the available literature on this topic and draw some lessons from the past experience of other countries. Specifically, the paper review the previous studies about the effect of entrepreneurship education on graduate’s entrepreneurial skills and intentions to start-up their own business. It also aims for reviewing the studies that examined the state of entrepreneurship education on some Arab and African countries. In addition, the paper examines the current status of entrepreneurship education in Sudan at schools, universities and colleges levels. Moreover, it try to identify the possible benefit of entrepreneurship education for Sudanese economy.

2. An Overview of Sudan’s economic performance and MDGs Status

Sudan is a country of paradox, endowed with huge and valuable natural resources, yet suffer from severe economic problems. Its people have been suffering from poverty, high literacy rate, weak infrastructure and poor public services for more than half a century. Since the early 1970s to the late 1980s Sudan’s economic performance had been very poor. GDP growth was very low and even in some years negative. Per-capita income was less than 400 US $ with a large proportion of population living in less than one dollar a day. This poor economic performance manifested itself into weak human development indicators. The poverty headcount ratio was more than 50 percent, Gross Enrolment Ratio (GER) was less than 50 percent, life expectancy at birth was less than 55 years, literacy rate was more than 70 percent and mortality rate was also noticeable (World Bank data base).

Sudan started the export of oil resources in 1999, since then a significant change to the Sudanese economy has occurred. GDP increased from 12.2 billion US dollars in 2000 to 64.7 billion US dollars in 2010 with an average annual growth rate of
about 6 percent. Moreover, the per-capita income increased by five folds in ten years, from about 350 US dollars in 2000 to about 1400 US dollars in 2010. The following figures summarize the main macroeconomic indicators for Sudan during the period (2000-2010).

**Figure 1: Sudan's GDP in Million US $ (1999-2010)**

![GDP chart]

**Figure 2: Sudan's GDP per capita in US $**

![GDP per capita chart]
The question to be asked, had this good economic performance been translated into a socio-economic development of Sudanese society. To answer this question two reports were prepared to assess progress attained toward MDGs. The first one was undertaken by the United Nations in 2004 and the second was carried out by the National Population Council (NPC) in 2010. In what follows the main finding these two report are used to convey the status of MDGs for the period (2004 – 2010).

According to the 2004 report few MDGs had witnessed some progress. For example, with regard to goal 1, it was found that the percentage of the undernourished population fell from 31% in year 2000 to 26% in 2004, and over the same period the under-5 malnutrition rate declined from 33% to 18%. Based on this, it was argued that Sudan was on track for halving the proportion of population who suffer from hunger. With regard to Goal 2, it is found that the Gross Enrolment Ratio (GER) rose for both sexes, from 53% in 2000 to 59.6% in 2004. As to goal 3, the data shows that some progress has been achieved toward reducing gender disparity in education. The data shows that females constitute about 46.9% of the total number of students enrolled at the primary school level and the ratio of girls to boys is 88.3, while the ratio of girls to boys in secondary education is almost equal for the same years (48%).

In the progress report of 2010 it was revealed that the MDGs status had slightly improved. Out of the eight MDGs few goals witnessed noticeable improvement. The proportion of the population that live on less than one dollar per day reduced from 64 percent in 2004 to 25 percent in 2009. However, this is lower than the
targeted level. In addition, poverty incidence based on income/consumption was estimated to be 46.5 percent for Northern Sudan compared to 90 percent in 1992. Although a considerable improvement in this goal was accomplished, still the situation was not satisfactory. Nearly half of the Northern Sudan’s population live in severe poverty. One of the possible causes of such high poverty rate was the lack of employment opportunities. With regard to the MDG 2 gross enrolment in basic education increased from 65.1 percent in 2004 to 71.1 percent in 2009, but it still lower than the average rate of Sub-Saharan Africa of 76 percent (UN 2012). In line with this the literacy rate of 15-24 year olds, women and men increased from 27.1 percent in 1990 to 69 percent in 2008 and further to 77.5 percent in 2009.

For MDG 3 according to UN 2004 report, some improvement had been achieved with women’s economic participation rate rose from 18% in 1990s to 30% in 2000s, and the ratio of girls to boys in secondary education is almost equal for the same years (48%). In the NPC 2010 report the ratio of girls to boys in basic education was estimated to be 81 percent while the share of women in wage employment in the non-agricultural sectors was estimated at 51 percent.

For the rest of the goals the NPC 2010 reports shows that the infant mortality rate per(000) live birth was increased from 81 percent in 2004 to 92 percent in 2008. While the proportion of births attended by skilled health personnel was estimated at 49 percent in 2006 and the antenatal care coverage (at least one visit and at least four visits) was found to be 69.6 percent. the HIV prevalence among population aged 15-24 years was estimated to be 0.5 percent for males and 1.24% for female.

It is worth mentioning that most of the above mentioned result related to Northern Sudan. Thus, the situation in South Sudan and other peripheries were even worth. In general the progress in MDGs Status could have been much better, had the Sudanese government adopted more suitable strategic plan that focused among other thing on entrepreneurship education. Such policy could have help in improving the performance in most of the MDGs indicators. Specifically, problem related to unemployment, poverty, education gender inequality could have been solve through the integration of entrepreneurship education in schools and universities curricula at all levels In what follow the importance of entrepreneurship education are discussed.
3. Literature on the Importance of Entrepreneurship Education

The importance of entrepreneurship education is well recognized and repeatedly documented by many authors in the literature. The entrepreneurship education is important in many aspects. It is so important for both individuals and national economy. That at micro level and for national economy at macro level. At micro level it can help students to understand business and its purposes, structure, and interrelationship with the different sectors of the economy and society (Cheung 2012). It also encourage creative thinking and enhance the ability of students to recognize opportunities. In addition, it enrich their capability to pursue opportunities, by innovating new project ideas and raised the needed recourses. Moreover, it improve students managerial skills and enable them to create and operate new firm. Further, it equipped them with the ability to think in a creative and critical manner (Raposo & Paço, 2011).

For example, the study by Cheung and Ng (2010) clearly indicated that conducting entrepreneurship activity learning in business subjects created a positive atmosphere, which enhanced students’ motivation to learn and develop generic skills. Furthermore, the study by Cheung and Chan (2011) suggest that Entrepreneur- ship Education would have a positive impact on the strength of the students’ entrepreneurial spirit in terms of starting-up a new business, and a high percentage of students acknowledged that the entrepreneurial knowledge they had acquired would be useful to them.

At macro level entrepreneur education generates employment opportunities, promotes economic growth, contribute in eradicating poverty, enhance economic and human development. By so doing it can contribute significantly in achieving MDGs. Along this line of thinking IRIMIE, BĂLEANU and IONICĂ (2010) stated that “there is a positive correlation between entrepreneurship and sustainable economic growth (that based on innovation and excellence and therefore requires an increasing number of start-ups, which in turn are likely to provide more and better jobs); Entrepreneurship can contribute to social cohesion for less-developed regions, to inclusion and employment of unemployed or disadvantaged people, and especially helps young people to be more creative and self-confident in whatever they undertake and to act in a socially responsible way” (p.1. ).
In line with this Kuratko (2005) introduced some aspects of a perspective on entrepreneurship. He concluded that entrepreneurship firms have played an essential role in leading innovation and technological change that boost productivity and foster economic growth in the United States. He added that, it facilitate the access of millions of people (among them women and immigrants) to the pursuit of economic success.

Many studies have been undertaken to empirically examined the impact of entrepreneurship on individuals and national economies. Most of these studies have noted that an entrepreneurship education has a positive impact on individuals’ characteristics, and their views toward entrepreneurship. Mohan-Neill (2001) found that students undertaken entrepreneurship education have more intention to be entrepreneurs than non-entrepreneurship graduates. Based on this results he concluded that entrepreneurship education has positively affected the students’ views on entrepreneurship. Moreover, Danko (2005) argued that entrepreneurship education is a great enabler for student who study entrepreneurship at any education level. It can supply student with many skills such as self-empowerment, values clarification, role modeling, and systems thinking. These skills are very important for all students who plan to become entrepreneurs.

Raposo and Paço (2011) after reviewing a large number of studies about the impact of entrepreneurship education on entrepreneurship activity argued that there is a clear evidence that a positive relationship exist between entrepreneurial education and subsequent entrepreneurial activity. This evidence justify the support that government give to entrepreneurship education. They Added that for education and training to be more significant in affecting entrepreneurship activity it should be focused on changing personal attitudes rather than in knowledge delivery.

Based on theoretical background and the past experience of developed countries it has been argued that for developing countries to growth and maintain sustainable development, there is pressing need for integrating entrepreneurship education in their education system at all levels. Entrepreneurship must be made available for all students from basic education through secondary education up to the university level. Such policy option would help eradicate poverty incidence, solve unemployment problem, illiteracy, maternal mortality, infant mortality and reduce gender inequality (Akhuemonkhan et al 2013). Because of this entrepreneurship education has been receiving attention globally. In view of this the World
Economic Forum’s Global Education Initiative (GEI) organized a roundtable meeting in Marrakech, Morocco in 2010 on entrepreneurship education. The meeting came up with Manifesto for creating jobs and economic growth in MENA through entrepreneurship and 21st century skills. It stated that “the gap between skills and jobs is widening further in the MENA region, and many countries in the region lag behind other countries around the world in terms of competitiveness. The region must invest in developing entrepreneurial and innovative skills to build sustainable economic development, create jobs and generate renewed economic growth. The MENA region needs to equip future generations with the necessary skills for the 21st century” (p. 7).

Some countries of the region have recognized the benefit of an entrepreneurship education for their people and economies. Thus responded positively to this Manifesto by developing its education system to raise its capacity in the provision of skills required for enterprise development. In so doing, they have started developing policies to make entrepreneurship education available at all levels of education and make sure that all students receive some sort of entrepreneurship education during their formal schooling years.

For example Egypt, Jordan, Oman and Tunisia signed an agreement with the UNESCO and StratREAL Foundation of the United Kingdom in 2009 to launch a research project about the entrepreneurial components of their education system. According to this agreement the four countries will be a case studies of research project that aimed for supporting the integration of entrepreneurship education in the educational policies, systems, programmes and practices of the Arab State. This research project was carried out by a team of four experts led by Munther and published online in 2010. (Munther et al 2010).

The research indicated that Tunisia has supportive policies for entrepreneurship education and training. In addition, Tunisia is distinctive from other countries in the region for its focus on the promotion of entrepreneurial activities and the important skills in all elements of the education system. In Jordan the entrepreneurship education is catered for in its education system and outside the education system. Nevertheless, the study called the different stakeholder in Jordan to adopt a comprehensive strategy for entrepreneurship education and reflect it in the different components and mechanisms of the education and training system.

With regard to entrepreneurship education in Oman it was found that education system focused around entrepreneurial spirit, and that important initiatives have been launched to promote entrepreneurship in education. These initiatives have
contributed in creating education system and environment conducive for entrepreneurship development. In addition, other initiatives have been undertaken in the vocational training and technical education to make it more business oriented and geared toward entrepreneurship. Moreover, colleges of technology have adopted many successful initiatives to improve the entrepreneurial components of its curricula and make more capable in delivering entrepreneurial skills.

Finally, in Egypt the formal education curriculum at school level does not contain any stuff related to entrepreneurship education. This does not mean that students in public schools do not receive entrepreneurial education, but they receive it according to ad hoc arrangements and agreements between the Ministry and cooperating bodies such as the ILO and CIDA.

Kaijage and Wheeler (2013) undertook detailed study for entrepreneurship education in three East African countries, Kenya, Tanzania and South Sudan. They found that entrepreneurship programs at undergraduate and graduate levels are delivered by twelve Higher Education Institutes (HEIs) in Kenya, and two HEIs in Tanzania and zero HEI in South Sudan. Thus in South there are no HEI deliver entrepreneurship education program neither at undergraduate nor graduate level. Based on this finding they concluded Kenya has the best developed HEI infrastructure to support entrepreneurship education in their formal educational systems, with Tanzania in an intermediate position and South Sudan at third position with poor capacity to deliver entrepreneurship education by their higher education institutes.

In Nigeria entrepreneurship education were introduced in 2006 and made compulsory for all higher education institutes. All universities, colleges and polytechnics were mandated by the Federal Ministry of education to incorporate entrepreneurship education into their curricula. It was estimated that during the period (2006-2010) around 50 thousand students would have gone through entrepreneurship education and got sufficient skills. Out of those graduates it was presumed that at least 10 thousand engaged into self employment by establishing their own business (Akhuemonkhan et al 2013).

In Angola the Ministry of Education in decided to develop the “entrepreneurship curriculum in secondary schools” project in partnership with UNIDO and UNDP and other stakeholders in order to stimulate among the youth the positive attitude towards entrepreneurship. This project was launched to address the development of
human resources as an entrepreneurial foundation for bottom up growth and private sector development (UNDP- Angola 2010).

4. Entrepreneurship education in Sudan
Unlike the case of some developing countries where the importance of entrepreneurship education have been recognized and entrepreneurship courses were introduced at all level of studies. In Sudan yet no enough attention has been paid to this issue. At the basic and secondary school levels there is no course of entrepreneurial nature. The bad thing is that there is no even awareness about the importance of entrepreneurship education for people and economy. Thus there is no intention to incorporated it in the school curriculum in near future. Notwithstanding that Sudan held a big conference in 2012 to revise its education system and recommend the required reforms. In this conference almost everything related to education system was discussed except entrepreneurship education. This clearly reflect the negligence of government officials to the essentiality of entrepreneurship education. Along the same line I had the chance to meet the state minister of education last year and I discussed with her the importance of entrepreneurship education. She mentioned that the ministry are currently engaged with a team of experts to try introducing entrepreneurship courses at vocational schools (Commercial and Industrial School). Until that will happen in the coming year Sudan schooling system remain without any courses of entrepreneurial nature.

At higher education level (universities and colleges) the curricula does not contain a complete education program of entrepreneurship leading to bachelor degree. But at postgraduate level there is one MBA program of entrepreneurship which was newly introduced in School of Management Studies of the university of Khartoum. Also the chance are open for students who want to write their Master or PhD. dissertation in entrepreneurship at Colleges of Business and Economics in most of the old public universities. However, some courses of entrepreneurial nature such as project management, feasibility study, small business management, microfinance, risk management are exist in business and economic programs of most of the universities and colleges.

A survey carried out by Timan and Gangi (2013) has revealed that entrepreneurship education does not exist as a major or minor specialty in undergraduate level at any higher education institutes in Sudan. They further argued that entrepreneurship as a course is very dare and can hardly be found in any undergraduate curriculum of higher education institutes in Sudan. However, it can be found as a topic in some courses taught in business and economic programs.
Also there some courses of entrepreneurial spirit and can help in providing some of the skills needed by potential entrepreneurs.

The justification for this situation could have been due to the lack of policy that address this issue. Government officials do not aware about the importance of entrepreneurship for individuals and economy. Sudanese society as well as government are unaware about the role that entrepreneurship education could play in generating employment opportunities, fostering economic growth and enhancing economic development. Government express its intention to support small scale industries by adopting different initiatives. managerial and financial programs, but little attention been paid to education and capacity building program. As an example for government attempt to develop small scale industries, the productive student program was implemented during the period (2000-2006), and recently the micro-financed has been widely introduced.

5. Conclusion and Recommendation
The main of objective of this paper was to examine the importance of entrepreneurship education for MDGs achievement. To do so a review for the available literature on the effect of entrepreneurship education on MDGs indicators was carried out. Moreover, the status of the entrepreneurship education in Sudan and other neighboring countries was examined. It was found that entrepreneurship education could be effective policy stool to achieve most of the MDGs. In light of this findings it is recommended that developing countries as general and Sudan as a case study for this paper need to integrate the entrepreneurship education in school and university curricula at all level.

Reference:


Central Bureau of Statistics (2010), Statistical Survey (1990-2009), Sudan.


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