

Towards an Integrated Model of Entrepreneurship Ecosystem

Dr. Ishraga Khattab

Professor Omer Osman Al-Magli

Sudan Academy for Banking and Financial Sciences

1. Introduction

Until recently, many governments and international financial organizations were focusing on existing enterprises as the main source of economic growth. These established firms act as economic levers. Thus, governments attempted to support these enterprises through developing regulations and laws that improve the competitive atmosphere and in turn, achieve efficiency gains among these firms. However, the slowdown in economic growth, the increase in unemployment rate, the advance of technology and the emergence of social changes, have all prompted a new economic thought to deal with such challenges. Thus, many countries have focused on developing policies that facilitate setting up new firms and entrepreneurial activities. Many scholars and policy makers have deemed entrepreneurship development as one of the main drivers of economic growth, employment and productivity, and an effective way out of the current economic dilemma.

The focus on entrepreneurship has swiftly increased in the 1990s, with the publicizing of different studies e.g Ahmed& Hoffman (2007) that stress the need for the creation of new innovative business deals that will impact economic development. In retrospect, governments became more concerned with entrepreneurship development and the value of entrepreneurship to the national economy. For example a study by Kelley, et.al (2010, p.12) revealed that "entrepreneurship is a catalyst of economic growth and national competitiveness". Additionally the Global Entrepreneurship Monitor (GEM) (2010 Global Report) claims that most policymakers and academics believe in the value of entrepreneurship to the society and economic growth. They are convinced that entrepreneurship can positively encourage innovation and economic reform.

In this respect, and to get more significant gains from entrepreneurship there is a need to create conducive atmosphere. International organizations believe that there is a need to formulate policies that create more enabling environment. The Organization of Economic Cooperation and Development (OECD, and 2008) and the European Commission (1998) emphasise that formulating entrepreneurship policies is critical to entrepreneurship development and the well being of society.

Governments are facing enormous challenges in finding solutions for economic slowdown and unemployment problems. In addition, the advancement of technology and the major social changes have thrown new pressures and new demands on governments and societies across the globe. With the acceptance of entrepreneurship as a main component of job creation and economic development, and the challenges that face the success of entrepreneurship (finance, management of business, policies etc), there is a real need to adopt a holistic approach to this phenomenon to generate high levels of dynamism, innovation, effectiveness and allow for the creation of conducive atmosphere.

Many scholars emphasize the need to develop a policy framework that guides entrepreneurship practice. For example, Audretsch & Thurik, (2001) argue that entrepreneurship policy formulation is a reaction to changing from managed economy to entrepreneurial economy whose attribution is transition from "industrial economy" to "knowledge-based economy", "structure and production part" to "service part", "big companies" to "small companies" and from "small companies" to "new companies".

Isenberg (2010:P 8-9) argues that the success of entrepreneurship does not depend on one factor. He claims that providing financial support only may be useful at the start up of the firm but strategic guidance, leadership development and business mentoring are required to ensure the sustainability of the entrepreneurial activities. He goes on to indicate that this kind of interactive and experiential learning is more of a value to improving the growth of entrepreneurship phenomenon.

Based on the above, policy makers and scholars became more concerned with a system –based form of support rather than "piece-meal approach" to encouraging entrepreneurship practice. Such an approach incorporates a more holistic approach of the situation which focuses on different aspects that support entrepreneurship success such as: developing networks, aligning priorities, building new institutional capabilities and fostering synergies between different stakeholders (Rodriguez Pose, 2013; Warwick, 2013). Such inclusive prespective can help to reduce obstacles and facilitates better resource access, which improves the whole entrepreneurship supporting system (Ács, Z., J.,Szerb, I., (2007).).

It appears that many countries now conceive of entrepreneurship as a multi-faceted phenomenon and many have undertaken different actions to improve the practice thereof. However, it is fair to say that very few, if any, have managed to develop clear road map to guide the activities of the players within this phenomenon. Thus, the aim of this paper is to develop a holistic approach about entrepreneurship by identifying its main players and how they can interact to create conducive conditions and ultimately boost prospects of entrepreneurship success.

2.0 Literature Review

One of the methods to deal with entrepreneurship policy framework is to focus on 'entrepreneurial ecosystems'. (Zacharakis et al, 2003; Napier and Hansen, 2011; Malecki, 2011; Kantis and Federico, 2012; Feld, 2012; Isenberg, 2010). Rosted (2012) argues that dynamic ecosystem fosters the emergence of new companies, and support employment creation in comparison with firms that lack the support of the ecosystem.

Entrepreneurial Ecosystem (Mason, C.& Brown, R. (2013,P5) is defined as '*a set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organizations (e.g. firms, venture capitalists, business agents, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes(e.g. the business birth rate, numbers of high growth firms, levels of blockbuster entrepreneurship', number of serial entrepreneurs, degree of sell-out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment'*

In brief, entrepreneurial ecosystem includes all activities, processes, key players, and everything that may influence the development of entrepreneurship. There are different models in the literature that discuss various entrepreneurial ecosystems. The following models illustrate emerging ways of different thinking about entrepreneurship ecosystem's structure. The chosen entrepreneurial ecosystem models are discussed below.

2.1 The Entrepreneurial Personality Model:

According to Valdez (1988), -s tart-up is the combination of the relations of potential entrepreneurs, their immediate environment and the current market circumstances.

A potential entrepreneur is a complex personality who has educational capabilities, willingness to take risk and deal with alternative options and make use of opportunities and available financial resources. The entrepreneurial environment comprises many circumstances and factors that influence the entrepreneurial decision. With regard to environmental factors, Valdez,(ibid) referred to the work by Bruno and Tyebjee (1982), who identified the most cited factors of an entrepreneurship-friendly environment. These are:

Venture capital availability	Attractive living conditions
Presence of experienced entrepreneurs	Proximity of universities
Technically skilled labor force	Availability of land or facilities
Accessibility of suppliers	Accessibility to transportation
Accessibility of customers	Receptive population
Favorable governmental policies	Availability of supporting services

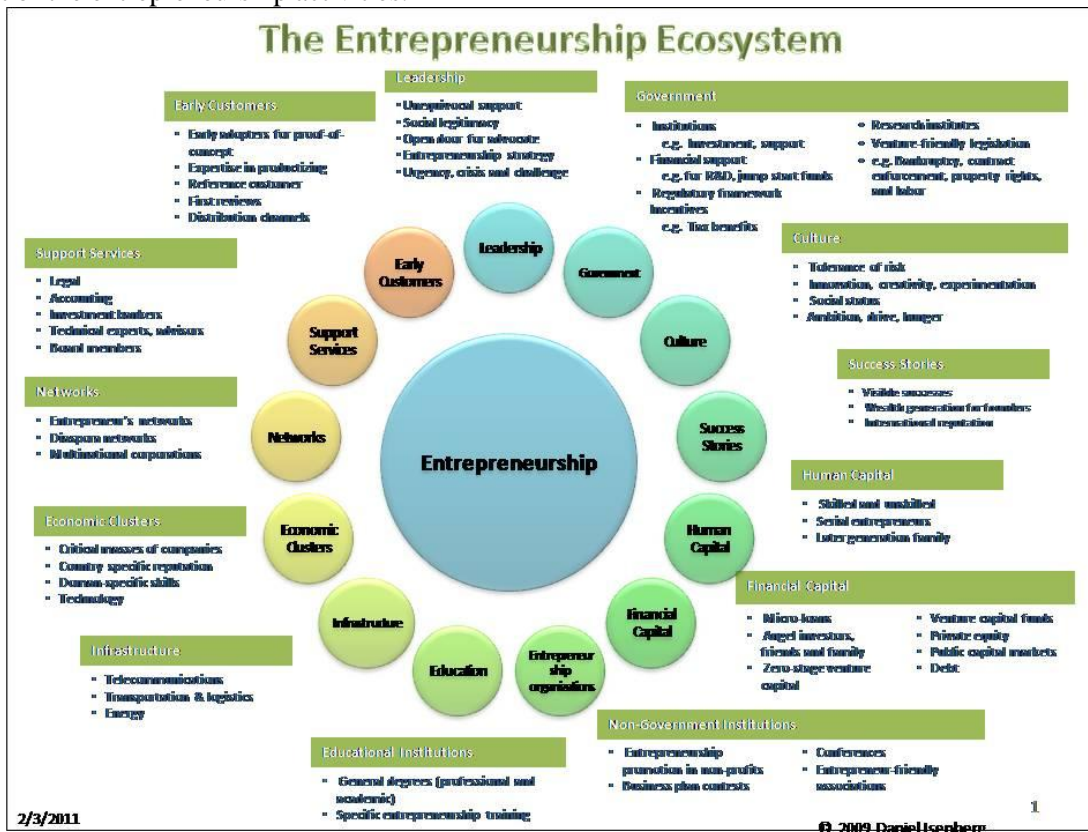
2.2. Entrepreneurial Process Model (1994)

Another interesting perspective on the entrepreneurial ecosystem is presented by Gnyawali and Fogel (1994). Their theoretical framework categorizes the environmental factors into five dimensions and links them with the five core elements of the start-up process, which, according to the authors' comprises entrepreneurial opportunity, ability to enterprise and propensity to enterprise

Gnyawali and Fogel (1994) described the starting up of the enterprise as follows: the first seed for this model is the entrepreneurial opportunity, then the entrepreneur who, makes use of this opportunity and starts up the enterprise, followed by the entrepreneurial abilities (economic-technological-knowledge) to run and manage his business (propensity to enterprise). Once these three conditions are available then it becomes more likely that the person will start-up the business. The starting up process should be supported by the environmental factors which are: (1) government policies and procedures, (2) socioeconomic conditions, (3) entrepreneurial and business skills, (4) financial assistance and (5) non-financial assistance

2.3 Entrepreneurial Ecosystems Model by Isenberg (2010, 2011)

Isenberg (2011) developed what is known as ‘entrepreneurship ecosystem for economic development (2011a, p.1). He identified six domains within the entrepreneurial system: a conducive culture, enabling policies and leadership, availability of appropriate finance, quality human capital, venture friendly markets for products, and a range of institutional supports (Figure 1). Isenberg claims that each context requires its own ecosystem as the components of the system include a number of units and pieces that interact in different distinctive ways based on the context of the entrepreneurship activities.



2.4 University-based Entrepreneurial Ecosystems (2010)

The heart of a university-based entrepreneurial ecosystem is a university or college. According to Greene et al. (2010, p. 2), a university-based entrepreneurial ecosystem is defined as „multidimensional enterprises that support entrepreneurship development through a variety of initiatives related to teaching, research and outreach. Volkmann (2009) argues that the university is expected to promote entrepreneurial thinking and act through various activities and initiatives which go beyond the university itself to support networking with relevant internal and external stakeholders. Fetters et al. (2010) developed University-Based Entrepreneurship Ecosystems – Global Practices “that offers a comprehensive picture of university-based entrepreneurial ecosystems which takes practical as well as theoretical aspects into account. Six university-based entrepreneurial ecosystems and their history are discussed, for example Babson College, Singapore University and Texas University. According to this analysis, universities which succeed in spreading and promoting the entrepreneurship spirit in their region have created fully functional university-based entrepreneurial ecosystems.

2.5. Koltai's Entrepreneurship Ecosystem Model (2014)

This model is developed by Steven Koltai, who created and ran the Global Entrepreneurship Program for the U.S. Department of State. Koltai developed his six + six model for entrepreneurship in Ghana. The model composes of six pillars and six types of actors. The six pillars are: (*Identify, Train, Connect & Sustain, Fund, Enable, Celebrate*) and the six types of actors involved in the ecosystem activity (*NGOs, Foundations, Academia, Investors, Government, Corporations*). For further information please refer to Figure 2. The researcher emphasizes that these factors need to interact to create a supportive environment for entrepreneurship. Basically Koltai's model depends on the interaction between these factors and actors to develop entrepreneurs. He also argues that not all entrepreneurs are inventors of new products. Actually, only about 20 percent of entrepreneurs are innovators in that narrow sense. Eighty percent are commercializers who bring new ideas to market.(Koltai, 2012).

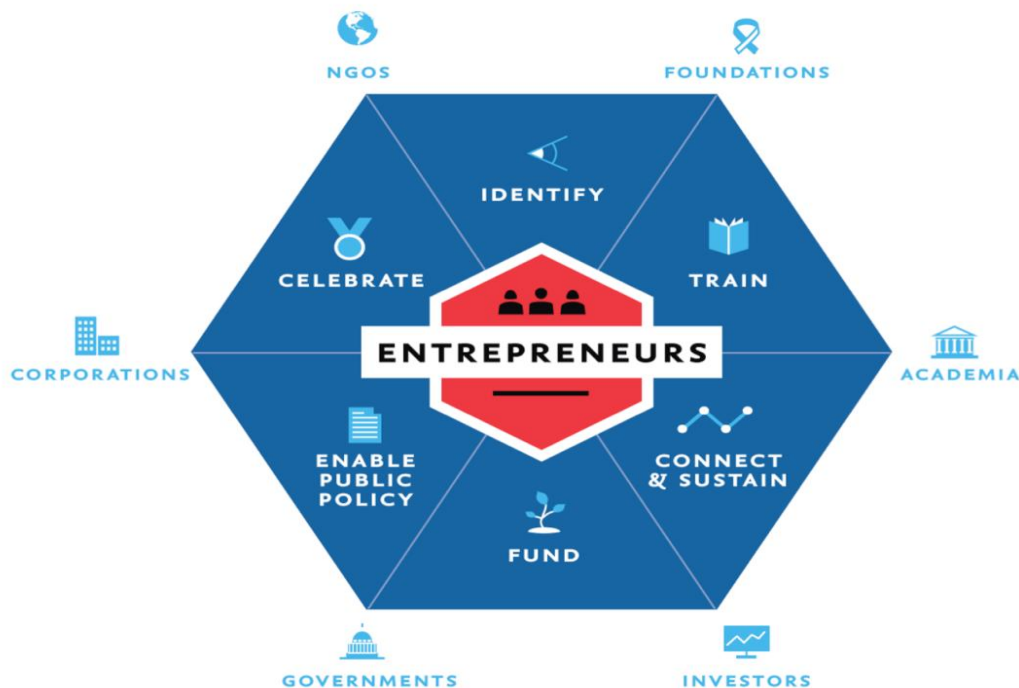


Figure 2: Koltai's Entrepreneurship Ecosystem Model

(Source)

2.6. The Eight Pillars of *Entrepreneurial Ecosystem Model* (Foster et al., 2013)

The model identifies eight factors as the main pillars for entrepreneurship development. The next table describes the components of the model:

<p>Accessible Market</p> <p>Domestic market:</p> <ul style="list-style-type: none"> – Large companies as customers – Small/medium-sized companies as customers – Governments as customers <p>Foreign market:</p> <ul style="list-style-type: none"> – Large companies as customers – Small/medium-sized companies as customers – Governments as customers 	<p>Human Capital Source</p> <p>Management talent</p> <ul style="list-style-type: none"> --Technical talent --Entrepreneurial company experience --Outsourcing availability --Access to immigrant workforce
<p>Funds and Finance</p> <p>Management talent</p> <ul style="list-style-type: none"> --Technical talent --Entrepreneurial company experience --Outsourcing availability --Access to immigrant workforce 	<p>Support Systems and Mentors</p> <p>Mentors/advisers</p> <ul style="list-style-type: none"> --Professional services --Incubators/accelerators --Network of entrepreneurial peers
<p>Government and Regulatory Framework</p> <p>Ease of starting a business</p> <p>Tax incentives</p> <p>Business-friendly legislation/policies</p> <p>Access to basic infrastructure</p> <p>Access to telecommunications/broadband</p> <p>Access to transport</p>	<p>Education and Training</p> <p>Available workforce with pre-university education</p> <ul style="list-style-type: none"> --Available workforce with university education --Entrepreneur-specific training
<p>Major universities as catalysts</p> <p>Available workforce with pre-university education</p> <ul style="list-style-type: none"> --Available workforce with university education --Entrepreneur-specific training 	<p>Cultural Support</p> <p>Tolerance of risk and failure</p> <ul style="list-style-type: none"> --Preference for self-employment --Success stories/role models --Research culture --Positive image of entrepreneurship --Celebration of innovation

from to the literature reviewed above, it appears that most of the studies focused on ecosystem models that deal with entrepreneurship in a more detached mode, Thus further studies are needed to investigate ways to develop a more integrative and collaborative way of promoting entrepreneurship. Furthermore, some of the ecosystems discussed are of a rather descriptive nature where the roles of the key players are not clearly defined. Few studies focused on the roles and responsibilities of these players and how their roles interact with each other. There is a need to focus on developing an integrated ecosystem that stresses the need for collaborative efforts from the various stakeholders who may influence the development of entrepreneurship. Additionally, the local context may influence the identification of the key drivers and their interaction with each other. Thus, this study focuses on proposing an ecosystem that is suitable for a developing country taking the country case of Sudan.

3.0 *The Proposed Entrepreneurship Model*

The uniqueness of the proposed model is manifestly seen in the collective reactive attribute that clearly identifies the roles of the players and how they interact with each other. The success of entrepreneurship framework is based on good identification of the key players within the relevant environment and the way they evolve and interact with each other to support the nourishing of entrepreneurship practices. The framework consists of different players. However, we will focus on the most influential players, as follows:

- Educational and training institutions
- Corporations and business associations
- Potential and existing entrepreneurs

- Government agencies/policy makers
- Financial institutions /investors
- Media organizations
- Technology community
- Business and advisory agencies (access to market, etc).

Recognizing the main players in the area of entrepreneurship practice will assist in identification of the role of each player as explained in the following section of this document, However, we have to consider that these players have their own cultural attributes that influence their interaction and their perception of entrepreneurship. Thus, the culture is considered as one of the main factors that set the boundaries for these players within the entrepreneurship ecosystem model.

Table 1 The role of education and training institutions in supporting entrepreneurship

Player Title	Key player role	Interaction with other players
Education and Training Institutions	Embed entrepreneurship in formal education by developing relevant curriculum and , making good use of technology.	Link up with private sector, NGOs, media organizations, and technology community to incorporate their needs within the curriculum design and, generally, the promotion of entrepreneurship practices.
	Promote vocational training. Link up with entrepreneurship training centers within universities.	Provide politicians with grounded work from scientific researchers

Table 2 The role of corporations and business partners in supporting entrepreneurship

Player Title	Key player role	Interaction with other players
Corporations and Business Partners	-Share experience and provide management and business models. -Foster new entrepreneurs and provide support for the new comer.	-Link up with entrepreneurs through educational and training institutions. -Partner with government agencies to provide support to entrepreneurs. -Work closely with media organizations and NGOs to promote entrepreneurship.

Table 3 The role of entrepreneur in supporting entrepreneurship

Player Title	Key player role	Interaction with other players
Entrepreneur	-Pursue his/her innovative idea. -Translate the innovative idea into usable product or service. -Actively seek to start up the enterprise. -Build his/her managerial and technical capabilities (seek development).	-Government agencies, NGOS and business supporters and the private sector need to provide programmes that facilitate the entry of entrepreneurs into the industry. -Educational institutions need to provide technical help with designing usable products. -Government agencies and financial institutions should have financial programmes in place. -Educational and training institutions should provide assistance on the know-how of starting and managing business.

Table 4 The role of government agencies and policy makers in supporting entrepreneurship

<i>Player Title</i>	<i>Key player role</i>	<i>Interaction with other players</i>
Government agencies and policy makers	<ul style="list-style-type: none"> -Map the current status of entrepreneurship in the country -Formulate policies and regulations that support entrepreneurship development. -Align entrepreneurship strategies with national development strategies and private sector development strategies. -Build entrepreneurs’ confidence in the regulatory environment by setting rules and channels to deal with conflicts and financial challenges. 	<ul style="list-style-type: none"> -Get clear grounded work from scientific research (educational institutions). -Partner with the relevant government agencies and the private sector to manage the interaction and create synergies. -Link with regulatory agencies and financial institutions. -Cooperate with the media, business supporters to raise general awareness about entrepreneurship.

Table 5 The role of financial institutions in supporting entrepreneurship

<i>Player Title</i>	<i>Key player role</i>	<i>Interaction with other players</i>
Financial Institutions	<ul style="list-style-type: none"> -Improve access to finance. -Build the capacity of the financial sector to serve start-ups. -Support small enterprise development and sustainability. 	<ul style="list-style-type: none"> -Partner with the private sector, government agencies and educational institutions to develop financial services that support entrepreneurship development. -Cooperate with training institutions to train financial institutions staff to better serve entrepreneurs. -Partner with the private sector and various educational and training institutions to extend the support to entrepreneurs beyond the financial assistance.

Table 6 the role of media organizations in supporting entrepreneurship

Player Title	Key player role	Interaction with other players
Media Organizations	<ul style="list-style-type: none"> -Highlight the value of entrepreneurship to the society and disseminate information on social entrepreneurship. -Launch entrepreneurship outreach and awareness campaigns at national regional and local levels. -Organize information and career fairs, forums and summits on business opportunities in specific economic sector or on specific businesses. 	<p>Work closely with all stakeholders.</p>

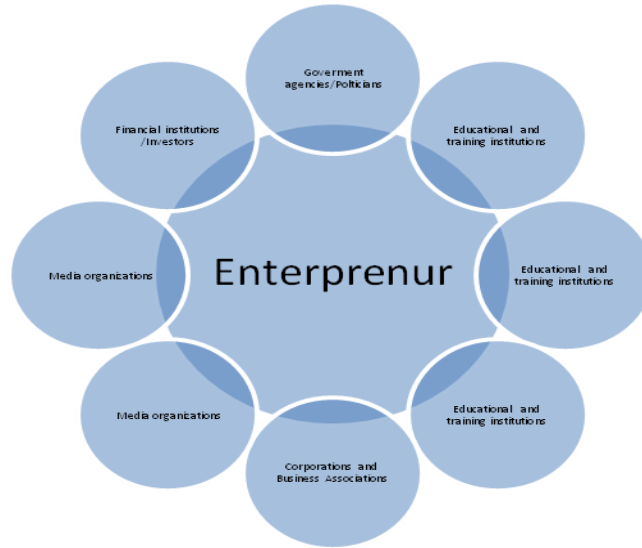
Table 7 The role of technology community in supporting entrepreneurship

<i>Player Title</i>	<i>Key player role</i>	<i>Interaction with other players</i>
Technology Community	<ul style="list-style-type: none"> -Provide innovative technological solutions to entrepreneurs. -Build the technological capacity of the entrepreneur. 	<ul style="list-style-type: none"> -Partner with government agencies, educational institutions, financial institutions and entrepreneurs to improve innovative processes and products. -Link with entrepreneurs and the private sector.

Table 8 The role of business and advisory agencies (access to market, etc). in supporting entrepreneurship

Player Title	Key player role	Interaction with other players
Business Advisory Agencies (NGOs)	-Facilitate link and access of entrepreneurs to supply chain -Provide help for entrepreneurs in (both input and output). various entrepreneurship activities (online help)	Work closely with all players locally and support internationally to entrepreneurship development.

Figure 3 Illustrates the main players in Khattab and Magli Entrepreneurship Ecosystem Model



3.1. Difference between the proposed model and other models:

It is worth noting that there are clear differences between the proposed model and the available models in the literature. For example, some of the entrepreneurial ecosystems discussed earlier focus on the role of a single case entity (university based model), where this entity is considered as the main driving force of entrepreneurship actions. Another model - entrepreneurial personality model- focuses on the opportunity where entrepreneurs do not cause change (as claimed by the Schumpeterian or Austrian school) as they just use the opportunities that change (in technology, consumer preferences etc.) may cause. Furthermore, some of the entrepreneurial ecosystems are of a rather abstract and descriptive nature, where the roles of the ecosystem players are not clear. And the stakeholders are still trying to figure out their responsibilities. Most of the discussed models have not comprehensively identified the role of each key players and their expected activities and how these roles interact with each other. Taking this into account it appears that there is a need to develop a model that deals with these limitations. At the same time, (Isenberg (2011) argues that no sustainable entrepreneurial ecosystem can be designed without taking into account the local situation and the specific context.

Each country needs to evaluate its own conditions and design typologies that are related to their cultural realities. Kolati (2012) also agrees with this approach where he claims that countries need to consciously build ecosystems that help the different kinds of entrepreneurs succeed.

Thus, there is a need to tailor a model that corresponds to the environment and the cultural attributes of the Sudanese society. The proposed model responds to such demand by providing a framework that can sketch the responsibilities of all key players who seek to contribute to the success of entrepreneurship practice.

Such framework acts as a road map for policy makers in partnership with the private sector and other civil society stakeholders, including academia, NGOs, and community organizations to create an enhanced environment that promote sustainable development of entrepreneurship. The next section provides a review of some practical entrepreneurship development initiatives in the Sudan.

4.0 Selected Entrepreneurship Development Programmes In Sudan

Following the launch of microfinance initiative in Sudan in 2007, the Sudanese government, has initiated some more effort to develop policies and to support small enterprise development programme the role of entrepreneurship is well recognized in employment generation, poverty reduction and economic development. government programmes touched different dimensions. Some of these programmes focused on building the individual capacity, others on institutional build up, where the government agencies were actively out policies and regulations to support entrepreneurship development. As for building the capacity of potential entrepreneurs the following major programmes were discussed:

4.1 Sudan Startup Weekend programme:

This programme is part of a worldwide initiative targeting potential entrepreneurs and equipping them with the basics of establishing startups and launching successful ventures. The non-profit organization responsible for this initiative is headquartered in Seattle, Washington, but Startup Weekend organizers and facilitators can be found in over 200 cities around the world. All potential entrepreneurs come together for weekend long workshops to pitch ideas, form teams, and start companies. All Startup Weekend events follow the same basic model: anyone is welcome to pitch their startup idea and receive feedback from their peers. Teams organically form around the top ideas (as determined by popular vote) and then it's a 54 hour work that ends with business model creation, coding, designing, and market validation. The weekends conclude with presentations in front of local entrepreneurial leaders with another opportunity for critical feedback. In Sudan, the same model is followed and the programme is regularly offered.

4.2 Mashrouy Programme:

Mashrouy, which is an Arabic word meaning 'My Project', is based on a competition that aims to spread the idea of entrepreneurship among young people and to shed light on the vast opportunities that entrepreneurship can provide to the youth of Sudan. Mashrouy is a project that is run in partnership with the British Embassy and the Sudanese Young Businessmen's Association, which tries to promote entrepreneurship among young people in the country and raise awareness among the general public. Twelve contestants compete with each other to present their best business ideas. Their ideas are then developed and refined by a panel of business executives, who provide valuable professional advice. After a series of challenges and twists, six contestants are chosen by the panel of judges. From these six contestants, five are then chosen by a public vote to have a chance of being one of three prize winners. For the Institutional build up, the following section describes different examples of this dimension:

4.3 IRADA Company:

The Islamic development Bank and Bank Al Khartoum have partnered together to establish IRADA company as an Islamic Microfinance Venture in 2012. IRADA distinguishes itself from other microfinance institutions by providing finance and technical support for beneficiaries. IRADA seeks to support SMEs development through extending its support over and above the financial component. For example in the Moringa & Jatropha Agricultural Project, IRADA has managed to empower 150 families in traditional agricultural sector by providing technical and supervisory support in addition to finance.

4.4 Inauguration of Entrepreneurship Centre based on the Bahraini Experience

Based on the noticeable success of the Bahraini Entrepreneurship Model overseas, an entrepreneurship Training and Development Centre has been set up in Sudan under the auspices of UNIDO in collaboration with the Islamic Development Bank (IDB) and the Ministry of Investment in Sudan. The Centre was named the Arab Regional Centre for Training and Development of Entrepreneurs. (ARCDE).

In the context of the new Centre (ARCTDE) the UNIDO has organized a visit by a group of Bahraini entrepreneurs to Sudan to attend the inauguration ceremonies and offer technical and institutional advice to their Sudanese counterparts reflecting on their experiences with respect to both small and medium investment projects. Additionally the group was waited the opportunity to have first hand information about the investment realities in the Sudan to further advance collaboration between the two countries including the exchange of relevant information as stipulated in the statute of the Centre. One significant outcome of the Bahraini group's visit to Sudan was the creation of a Sudanese national pool of trainers covering various government ministries and departments, financial institutions, universities, association of Sudanese businessmen, and investment directorates in seven states.

The new Entrepreneurship Centre in the Sudan was well received by all concerned parties based on a widespread belief that the Bahraini experience in the area of entrepreneurship development has gained an international acclaim. It is widely expected that the establishment of this new centre will not only secure an access to the Bahrain experience to be considered for adoption and adaptation, but will also boost the prospects of inter-country partnership and collaboration in various investment areas, particularly agriculture and animal production.

The Centre for Entrepreneurship Training and Small Business Development implemented a regional forum on entrepreneurship under the slogan of (Badir: : an Arabic word for taking the initiative). The event was sponsored by Zain company and was attended by the State Ministers for Investment and Social Welfare in addition to experts from both inside and outside Sudan. The State Minister for Investment praised the Sudanese experience in the area of entrepreneurship and small business development as manifested in the many initiatives launched by telecommunication companies, particularly Zain , which is renowned for promoting social responsibility initiatives. Additionally, the State Minister for Social Welfare has expressed strong support by the government for all productive activities and projects to contribute towards the socio-economic development of the country. The minister also hailed the efforts by Zain Company to boost the prospects of entrepreneurship in the country and the pioneering role of the company in the area of social responsibility. He, furthermore called upon all companies to follow in the footsteps of Zain to help create more conducive conditions for small investors to take their place in the economic / investment cycle. The director of the Entrepreneurship Training and Small Business Development Centre explained the mission and goals of the centre, which aims to promote entrepreneurship and develop small businesses indicating that the centre has managed to obtain the international entrepreneurship license, which will encourage further efforts by the centre to deliver on its mission.

Zain's representation listed the activities undertaken by the company to promote entrepreneurship through many initiatives targeting capacity building among university graduates in the area of the business management. In addition to providing some logistic support for small investors in the distribution sector . the Institutional Liaison Director of Zain Group (the parent company of ZainSudan) expressed their support for the initiative by Zain Sudan and quoted , as an example , the project undertaken by Zain to offer telephone set and a money balance for household wives to practice trade and exchange from their homes, which has significantly increased the income of targeted families and contributed towards their financial stability. Sudatel Telecommunication Company and Entrepreneurship Center got together to launch Badir (take the initiative) initiative which seeks to train thousand young men and women on entrepreneurship. Within the context of its social responsibility program, Sudatel company has inaugurated phase one of its initiative (Badir) for training thousand youth on entrepreneurship which is going to be implemented by the Entrepreneurship Training and Small Business Development Centre (ETSBDC).

The inauguration was attended by many key officials in the government and the company, showing their interest and support for the initiative, which comes as a practical step towards the implementation of the Memorandum of Understanding between Sudatel group and the Ministry of Social Welfare signed during the fourth national conference on social responsibility in which Sudatel company has undertaken to offer comprehensive training to a thousand youth in the area of entrepreneurship and building their capacities in the selection of the appropriate investment projects, the running and development of these projects in addition to the management of their finances. This initiative is expected to generate a wide range of results for the youth and their families in addition to reinforcing the private enterprise culture which is strongly supported by the government.

Furthermore, Zain Group in collaboration with MIT forum and the founding partner, Abdelateef Jameel Social Initiatives, have announced the passing of 75 teams from 15 Arab counties through to the final round of MIT forum contest for the best entrepreneurial projects in the Arab world in which the basic criteria for competition are creativity and innovation.

MIT is the initials for Massachusetts Institute of Technology in the USA, which has gained reputation for its pioneering role in the development of the digital era. This institute focuses on equipping its students with the necessary tools required for conversion of technological ideas into successful business ventures. The MIT forum for the Arab region, which was established in 2005 is one out of 28 forums established worldwide by MIT international forum with the purpose of encouraging innovation globally by involving ambitious entrepreneurs in initiatives that are sponsored by various agencies in both public and private sectors.

As for this contest 75 teams qualify to compete in the final round and Zain group is going to hire specialist trainers for each team to do well in the competition.

The chief executive officer of Zain has made a comment on this final round showing their satisfaction regarding the quality of projects offered by various teams. He goes on to confirm the fact that the participating nations need these entrepreneurs to make a significant difference in the future and that the company will definitely benefit from the innovative ideas in the digital areas to help them provide better quality service to their customers. The chairperson of the MIT forum competition for the best entrepreneurial projects explained that their new partnership with Zain group has contributed towards achieving many breakthroughs as manifested in the proposals made by participants from many Arab countries including Sudan. She goes on to emphasize that their original partnership with Abdelateef Jameel Social Initiative is successfully recruiting many participants from across the Arab world as a record figure of participating entrepreneurs (12000) was reached. The president of Abdelateef Jameel Social Initiatives expressed his pleasure for taking part in the 8th round of MIT competition for the best entrepreneurial projects and goes on to highlight the component of initiative which is manifestly seen in the proposed projects by all participants. The significance of the initiative stems from the fact that the initiator can convert the business idea into a successful real life business venture and thereby secures rewarding employment of his talents and skills. This outcome constitutes the cornerstone of Abdelateef Jameel Social Initiatives which seeks to reduce unemployment in the Arab region.

The participants in this competition are supposed to attend a four day training course in Kuwait to get a reasonable dose of knowledge regarding entrepreneurial projects and activities. The course will be delivered by trainers from MIT Silicon Valley office. Ten successful projects will be selected for the final round in each business area. The successful teams will be given the opportunity to present their business ideas before a panel of assessors made up of successful-investors and entrepreneurs.

In the closing phase of the program three winning teams will be declared in each business area during a ceremony coinciding with the convening of the 8th round of the MTI Arabic Conference organized by the Association of Arab Graduates for MIT, USA. The MIT forum for the Arab region was established in 2005 as one of 28 international MIT forums to promote entrepreneurship and innovation globally. The forum has established an admirable record in the area of entrepreneurship promotion and development through the organization of annual competition for the most successful entrepreneurial projects in the region in collaboration with Abdelateef Jameel Social Initiatives targeting 21 Arab countries and getting more than 5000 applications annually for participating in the competition. The outcome of this competition has so far been manifested in the training of more than 900 entrepreneurs and more than 200 start ups in the field of technology in many Arab countries.

4.5 The Ministry of Higher Education (MOHE) efforts towards promotion of entrepreneurship:

Although it is not the immediate responsibility of the Ministry to look into issues relating to the employment of university graduates, the Ministry is trying to formulate an appropriate response to the national concerns expressed by many parties about the employability of these graduates. In this context the Ministry has so far undertaken two activities:

(1) The first activity relates to consultations with the British Council and similar organizations on ways and means of injecting into the higher education system activities which aim at the promotion of the enterprise culture and the development of entrepreneurial competences. Along these lines the proposed initiatives include:

A- Establishment of entrepreneurship centres in as many Sudanese universities as possible to do research, training, teaching and raising awareness.

B- The (MOHE) shall work in collaboration with relevant government agencies and civil society organizations to boost the prospects of entrepreneurship.

C- the (MOHE) shall mandate the introduction of some entrepreneurship related courses as part of the university curriculum for all disciplines.

(2) The second activity, which was carried out in collaboration with the Ministry of Industry, was intended to implement some of the agendas included in the first one, particularly with respect to the role of the (MOHE) in galvanizing institutional support for the idea through undertaking joint activities with government ministries and other stakeholders. A multi – disciplinary committee was set up as per a ministerial decree to make necessary arrangements for a workshop to be held under the auspices of the Council of Ministers to bring together all concerned agencies and parties.

Working papers were prepared by specialists from both universities and the industry focusing on the success requirements for the promotion and development of entrepreneurship in Sudan. The workshop was attended by many people representing different interests and orientations including the two ministers of Higher Education and the Industry. A set of recommendations was reached by the participants and it is expected that they will be sent to the concerned parties inside and outside the government structure to translate them into action plans. It is a bit early to assess the aftermath of the workshop and the (MOHE) expects to select a follow up team to measure the actual outcome on the ground and provide necessary feedback.

4.6 Establishment of Entrepreneurship Development Centres

In a bid to provide institutional support for the development of entrepreneurship, several bodies such as academic institutions and banks, for example, the Family Bank and other Microfinance Institutions have established entrepreneurship Development centres that seek to provide microfinance customers with practical training and hands on experience to start up business. Examples of these centres: Sudanese Riyadh Centre, Sudanese Eibdah Centre, etc.

Entrepreneurship Education Programmers

Additionally, some universities and educational institutions in Sudan have introduced entrepreneurship module as a compulsory course within their curriculum, for example, Khartoum University and Ahfad university. While Alriyadah college has developed a leading degree program in entrepreneurship.

5.0 Conclusion

Entrepreneurship is deemed to generate a powerful force of economic development. Entrepreneurs are considered to inspire economic change by offering new products and services, and turn new ideas into business solutions to local and international needs. At the same time, entrepreneurship requires an enabling environment to grow and flourish. Startups require low barriers at the outset; to achieve scale they require a legal and regulatory framework that rewards entrepreneurial initiative, ensures fair competition, and protects private property rights. Thus, a sustainable entrepreneurship ecosystem, financial, educational, legal and other supports must be encouraged by a robust policy environment. Governments should therefore focus on building the legal and institutional basis for supporting bottom-up efforts of entrepreneurs. The private sector can provide invaluable input into the design of policies and reforms as well as their implementation. Through an open, transparent, and democratic dialogue with the government, business organizations in countries around the world can become representative voices of business and key partners in reform. Engagement with the business community can therefore help shape an entrepreneurship ecosystem that is uniquely tailored to local needs and circumstances. Within this ecosystem, given the chance, entrepreneurs will find their way forward and bring economic dynamism that delivers.

References

- Ács, Z., J., Szerb, I., (2007). Entrepreneurship, Economic Growth and Public Policy, *Small Business Economics* 28, 109–122
- Ahmad and Hoffman, A (2007) A Framework for Addressing and Measuring Entrepreneurship. OECD: Entrepreneurship Indicators Steering Group. Presentation to OECD LEED Programme Workshop on Entrepreneurial ecosystems and Growth-oriented entrepreneurship, The Hague, 7 November.
- Audretsch, D.B. and A.R. Thurik, 2001, What is new about the new economy: sources of growth in the managed and entrepreneurial economies, *Industrial and Corporate Change* 19, 795-821.
- Bruno, A. V., & Tyebjee, T. T. (1982). The environment for entrepreneurship.
- Foster, G., Shimizu, C., Ciesinski, S., Davila, A., Hassan, S., Jia, N., & Morris, R. (2013, September). Entrepreneurial ecosystems around the globe and company growth dynamics. *World Economic Forum* (Vol. 11).
- Feld, B (2012) *Startup Communities: building an entrepreneurial ecosystem in your city*, Hoboken: NJ, Wiley.
- Greene, P., Rice, M and Fetters, M (2010) University-based entrepreneurship ecosystems: framing the discussion, in Micheal Fetters Patricia Greenem Mark Rice and John Sibley Butler (eds.) *The Development of University-Based Entrepreneurship Ecosystems: Global Practices*. Edward Elgar, UK.
- Isenberg, D (2011b) When big companies fall, entrepreneurship rises, *Harvard Business Review*, <http://blogs.hbr.org/2013/03/when-Big-companies-fall-entrep/>

- Kantis, H. and Frederico, J. (2011) Entrepreneurial Ecosystems in LatinAmerica:therole of policies,Download from:http://www.innovacion.gob.cl/wpcontent/uploads/2012/06/Entrepreneurial-Ecosystems-in-Latin-America_the-role-of-policies.pdf
- Malecki E J. (2011) Connecting local entrepreneurial ecosystems to global innovation networks: open innovation, double networks and knowledge integration, *International Journal of Entrepreneurship and Innovation Management*, 14, 36-59.
- Mason, C.& Brown, R. (2013) Entrepreneurial ecosystems and growth oriented entrepreneurship. Background paper prepared for the workshop organised by the OECD LEED Programme and the Dutch Ministry of Economic Affairs on Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship, The Hague, Netherlands
- Napier, G and Hansen, C (2011) Ecosystems for Young Scaleable Firms, FORA Group.
- OECD (1998) *Fostering Entrepreneurship*. Paris: OECD.
1. OECD (2008) *Measuring Entrepreneurship: A Digest of Indicators*, OECD-Eurostat Entrepreneurship Indicators Program, Organisational for Economic Co-operation and Development (OECD), Paris.
 2. Rodriguez-Pose, A. (2013) Do Institutions Matter for Regional Development? *Regional Studies*, 47, 1034-1047.
 3. Valdez, J. (1988): The entrepreneurial ecosystem: Toward a theory of new firm formation. Working Paper. Web: <http://www.sbaer.uca.edu/research/sbida/1988/PDF/11.pdf>.
 4. Warwick, K (2013) *Beyond Industrial Policy: emerging issues and new trends*, OECD Science, Technology and Industry Policy Papers, No 2. OECD Publishing (<http://dx.doi.org/10.1787/5k4869clw0xp-en>)
 5. Zacharakis, A. Shepard, D. and Coombs, J. (2003) The development of venture-capita-backed internet companies: An ecosystem perspective, *Journal of Business Venturing*, 18, 217-231.