



# ENTREPRENEURSHIP AND INNOVATIONS FOR SUSTAINABLE DEVELOPMENT IN THE ERA OF DISRUPTION IN NIGERIA.

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## **Abstract**

*The study focused on entrepreneurship innovation for sustainable development in the era of disruption in Nigeria. The objectives of this study are to analyze the challenges hindering entrepreneurship and Innovations for development in Nigeria; and to examine entrepreneurship and innovation as essential drivers of development in times of disruption in Nigeria. This a conceptual paper, anchored on the theory of diffusion of innovation propounded by Everett Roger, which describes the pattern of how new ideas or innovations spread throughout a society from a concentrated few user to a large general population of users across time as knowledge and use of the innovation builds. Findings showed that entrepreneurship and innovation are essential drivers for sustainable development, helping society adapt to disruptions while addressing environmental, social, and economic challenges. Entrepreneurship hold the potential to shape a more sustainable and resilient future for the global world. It was recommended that government should make policies that will favour small, medium and large-scale businesses in order to reduce unemployment rate and increase Gross Domestic Product.*

*Government should also create conducive industrial environment by providing the rural and urban sectors with basic infrastructures such as industrial zones; affordable, steady and reliable electricity; water supply; education; health services; and security.*

**Keywords:** *Entrepreneurship, innovation, disruption, sustainability, Nigeria.*

## **Introduction**

Entrepreneurship and innovation are important in diverse sustainable economic development. They are fundamental for the success of new organizations that are providing innovative solutions to meet environmental or social challenges. Entrepreneurship and innovation are also very vital tools for the success of already established enterprises. Organizations undertake sustainability entrepreneurship for so many reasons, which are; enhancing brand name and reputation and to benefit financially by being market leaders in business practices that reduce environmental and societal impacts in their sphere of operating influence. They also engage in sustainability entrepreneurship to affect positive societal change.

In Nigeria today, the need for economy diversification has been the order of the day due to the perceived rapid deteriorating nature of the oil sector and its continuous harm on the standard of living of the masses and the nation at large. The gross impact of entrepreneurship and innovation on job creation, enhancement of people's living standard etc. have since been acknowledged by the Government. The general impact on the economy drives for encouraging entrepreneurship as a way of diversifying the economic reliance on oil for development.

Entrepreneurship concept is used to describe self-motivated process of creating incremental wealth (Shailesh et al., 2013). This wealth is created by individuals that take calculated risks in terms of equity, time and career obligation of providing value to some agreed products and services. The product or service itself may or may not be entirely new or unique but value is necessarily needed to be infused by the entrepreneur through obtaining and assigning the needed skill and resources.

Entrepreneurship is also seen as the application of one's energy for initiating and creating an enterprise (Aondoseer, 2018). The main objectives of this study is to analyze the challenges hindering entrepreneurship and Innovations for development in Nigeria; and to examine entrepreneurship and innovation as essential drivers of development in times of disruption in Nigeria.

## **Review of Related Literature**

### **Concept of Entrepreneurship**

The concept of entrepreneurship is interpreted by various scholars, countries and fields. These different views and perceptions of the concept of entrepreneurship have made it difficult to define. Hence there is a lack of consensus on the definition of entrepreneurship (Kuratko, 2009). The definition of entrepreneurship continues to evolve as Kuratko (2009) affirms that definitions of entrepreneurship are abounding as there are researchers and writers who try as much as possible to define the concept differently from a previous writer. Kuratko however suggests that there is a need to broaden the definition of entrepreneurship as entrepreneurs are doing many things in recent times.

Entrepreneurship is to a large degree a mind-set, always striving to do new things in an innovative and better way. The meaning of entrepreneurship is derived from the French seventeenth-century term for someone who “undertakes” and more specifically someone who undertakes a specific project or activity. In the nineteenth century, the French economist Jean Baptiste Say refined the meaning of entrepreneurship to individuals who create value by shifting resources from lower- to higher-valued activities. The higher value activities can be activities that bring value to both individuals and society.

Entrepreneurship is discipline (Crocì, 2016). Entrepreneurship is a distinct, being a discipline by its own right. Crocì (2016) also defined entrepreneurship with autonomous discipline that can operate independently as well as interdisciplinary. Other study defines entrepreneurship as “practice begins with action and creation of new organization” (Barot, 2015). Barot (2015) also stated that entrepreneurship is a key to success and every individual that creates a new organization of business means enter into a new paradigm of entrepreneurship. Nevertheless, the entrepreneurship is an activity that shifted the old habits into the new one with fully discipline and independent. Entrepreneurship is an art (Chang et al, 2015). Chang (2015) stated that “art entrepreneurship is relatively new topic of research and the focus area are exploring the management process of entrepreneurship such as creativity and autonomy, capacity for adaptability, and create artistic as well as economic and social value”. There are many definitions of entrepreneurship, some of them are seeing entrepreneurship as a process of successful organization, and other define entrepreneurship as building mindset and skills. However, the final destination of entrepreneurship definition is generating jobs opportunities and lead to economic development (Barot, 2015) (Hessels, 2019). Next, entrepreneurship must employ manpower resources with technical and skill labor and managerial talents (Barot, 2015) (Chang et al, 2015).

It is the twentieth-century thought on entrepreneurship from Joseph Schumpeter, an Austrian born and then Harvard University-based economist and sociologist, which has most influenced contemporary thinking about entrepreneurship. In Schumpeter’s view, entrepreneurs are innovators who drive the “creative destruction” process, reforming or revolutionizing the pattern

of production. In many respects, sustainable businesses are significantly changing, if not revolutionizing, the patterns of production and service delivery, transforming business practices in ways that benefit the environment and society.

Another helpful view of entrepreneurship is provided by the twenty-first-century management scholar Peter Drucker. Drucker suggests that entrepreneurs always search for change, respond to it, and exploit it as an opportunity. Entrepreneurs take risks in starting new activities and take on significant personal responsibility. Many sustainability entrepreneurs perceive opportunities emanating from increased public concern about the environment and climate disruption and are responding to this opportunity with profit-making ventures that address these concerns.

### **Entrepreneurial Factors that leads to Sustainable Development**

Critical entrepreneurship success factors can be in the form of activities, events, circumstances or conditions that require special attention of entrepreneurs (Aondoseer, 2018). According to Kee (2012), all these factors can influence entrepreneurship success in either positive or negative ways, therefore they provide a comprehensive approach that critically focus on clarifying assumptions to induce the flexibility that are neutral and aid divergent thought. Bolton & Green (2012) assert that entrepreneurship factors can be a processes, benchmarks, or components of a business to ensure the profitability and remain competitive in the market place. However, Olatomide & Omowunmi (2015) contend that entrepreneurship factors, which also known as key success factor for entrepreneurs are complex and multifaceted because most of the research revealed contradictory or inconclusive findings on their outcomes. A number of these factors as identified by several authors include:

#### **Attitudinal and Perceptual factors**

Johnson et al in Aondoseer, (2018) assert that attitudinal factor and perception comprising of perceived desirability feasibility has significant in influence on a person's propensity level to sustainable entrepreneurial engagement. Though his study only examined the direct impact of normative, perceptual and attitudinal factors on propensity to sustainable entrepreneurship, Johnson et al in Aondoseer, (2018) observed that behavioural objective or tendency is a complex process which could follow through several stages. In the same vein, Cambra Fierro, Hart and Polo-Redondo in Aondoseer, (2018) proposed variables appropriate for sustainable entrepreneurship which include among others: legal context, leader's personal values, socio-cultural background, market demands, ownership structure and the nature of industrial characteristics. Firm Sector, Size, Ownership, and Innovative Orientation, The sector a firm belong, the size of the firm, ownership structure, and degree of innovative orientation determines the extent to which sustainable entrepreneurship behaviour is exhibited. Uhlaner, Brent and Jeurisse in Aondoseer, (2018) opined that larger firms, firms from more tangible products sectors, family owned firms, and firms with a more innovative orientation have more inclination towards manifesting sustainable entrepreneurship behaviours. This is without prejudice to other dimensions of sustainable entrepreneurship such as employees (individuals in the firm), suppliers and clients (direct stakeholders) and the larger society.

These views are in consonance with the resource-based approach of large firms, which perceive large firms as having more manpower and financial stability (Naqvi, 2011). Large firms are more exposed to the public, and any attempt to exhibit irresponsible behaviours will undermine their

survival and reputation. Responsiveness of family firms towards community related developmental activities and avoidance of actions that are detrimental to peaceful co-existence (e.g. polluting the environment) is a direct consequence of closeness to the local community and willingness to share their prosperity (Oyeku et al 2014).

### **Personality, Management skills, Environmental and Motivation factors**

The key performance indices and extent of growth of an organisation are measures of business success. Triggering factors (for example personality and motivation) that propels entrepreneurs into putting on thinking cap on one hand and successful factors such as management skills, and educational levels, both formal and informal, on the other hand are vital to entrepreneurial success. Motivating factors and personality characteristics are positively related in a significant manner. There is expected to be a significant relationship between motivating factors and management skills and abilities, level of education, environmental forces, and entrepreneurial success.

### **Product/Service Mix Factors**

Most successful entrepreneurial organizations choose diverse production systems as a means of risk management. Diversified operations and the existence of specialty services/products tend to be more resilient during challenging times due to numerous market options available (Yeboah, Owens, & Bynum, 2011). Studies show similar discoveries for cooperative businesses. Having widely diversified products/services also tends to broaden a firm's customer base. A broader product variety will increase the probability of a firm's survival when specialized products markets strengthen (Baptista, Karaoz, & Leitão, 2010).

### **Entrepreneurship for Sustainable Development**

Entrepreneurship for sustainable development focuses on creating businesses and innovations that have a positive impact on the environment, society, and the economy. It involves addressing challenges like climate change, inequality, and resource scarcity through innovative and socially responsible ventures. Sustainable entrepreneurs often consider long-term impacts, ethical practices, and social responsibility as integral to their business models. This approach can lead to both profit and positive contributions to a sustainable future.

### **Innovation for Sustainable Development**

Innovation is widely acknowledged as a key driver of economic growth (Bae & Yoo, 2015; Santacreu, 2015), as well as reduced inequality within and between countries, and improvements in health and longevity. It affects the economy through multiple channels, such as economic growth, global competitiveness, financial systems, quality of life, infrastructure development, employment, trade openness, and thus leads to high economic growth (Maradana et al., 2017). Investing in enhancing innovation is expected to contribute toward alleviating poverty and creating decent job opportunities (Pansera & Martinez, 2017). Innovation can lead to higher productivity, wherein the same input generates higher output. As productivity increases, more goods and services are produced, and the economy grows (ECB (European Central Bank, 2017).

The past two decades have proven the pivotal role of innovation in sustainable economic development. However, innovative activities depend on the availability of a few critical factors, such as relevant infrastructure, information, and communication technologies (ICTs), and human skills, which are less accessible in low-income countries, thereby leading to increased development gaps. The innovation ranking calculated by the Global Innovation Index (GII) shows a notably low level of innovation in less developed countries (as defined by the World Bank classification). In

some countries, the level of innovation is notably below expectations for the development level (GII, 2020).

Consequently, the build-up of innovation capacities has played a key role in the growth dynamics of successful developing countries (World Bank, 2008). Innovation for sustainable development focuses on identifying more effective solutions that contribute value to the lives of individuals, governments, users, and clients affected by developmental challenges. Innovation is a key factor for ensuring development, and international donor organizations are increasingly emphasizing innovation as a key condition for funding. The development of inclusive innovations and the transfer of technologies from developed countries can often significantly contribute to addressing urgent developmental challenges.

Innovation is primarily considered an instrument for sustainable development, and not a target by itself. Therefore, the most important factor that should be considered is the development objectives of the country and the shared priorities for fulfilling these objectives: reducing poverty and social gaps, reducing unemployment, increasing productivity, and supporting a sustainable development process. Improving innovation is also expected to directly or indirectly contribute to achieving the 17 goals of the 2030 Sustainable Development Agenda (United Nations, 2015). As the world moves toward a future guided by these universal goals, a strong focus will be placed on building partnerships with the public and private sector, fostering jobs and opportunities for all, advancing technology and innovation, and addressing sustainability and the fight against climate change. Some research has been conducted focusing on methods of including low-income countries in the innovation process. For example, Christensen et al. (2017) provided few suggestions for developing innovation models in Africa, and Acharya and Pathak (2019) suggested focusing on applied research.

The process of innovation development and adoption is perceived to have at least three fundamental characteristics: complexity, dynamism, and uncertainty. The innovation process is complex because it typically deals with a large number of interconnected factors that impact, or are impacted by, the other factors (Hall et al., 2012).

Innovation for sustainable development is a newer phenomenon, but its development and implementation are equally complex, dynamic, and uncertain as other types of innovations (Seyfang and Smith, 2007). The literature converges to the fact that enhanced sustainability performance cannot be achieved without innovations (Silvestre, 2015). This is because achieving enhanced sustainability performance requires adaptation and change in processes, products, management approaches, and policy orientations. Therefore, change is a fundamental element for organizations, supply chains, and communities as they evolve on their sustainability trajectory.

Sustainable innovations that are continuously adopted improve specific organizations and the entire supply chain's sustainability trajectory, allowing them to achieve superior sustainability performance. Sustainability trajectories are the paths organizations, supply chains, and communities take to become more sustainable through innovations (Silvestre, 2015).

Path dependence refers to the series of contextual and historical elements that together influence decision makers to go in one direction or another (Martin and Sunley, 2006). That is, innovation decisions that need to be made will be bounded by the decisions that have been made in the past. Aghion et al. (2014) argue that when developing and adopting innovation for sustainable

development, path dependence often emerges due to existing powerful network effects and high switching costs. Franceschini et al., (2016) viewed innovation for sustainable development as complex and rich, reflecting the different perspectives and interests that emerge in different communities.

### **Challenges Hindering Entrepreneurship and Innovations for Sustainable Development in the Era of Disruption in Nigeria.**

The most pressing issues of sustainability are environmental challenges and social challenges (Epstein and Buhovac, 2014).

#### **Environmental challenges**

A frequent issue discussed in the recent years, which prevents us as a society from pursuing a sustainable development trajectory, is related to the environmental challenges the world is currently facing. These challenges include, for example, air and water pollution (Greenstone and Hanna, 2014), waste disposal and management (Calcott and Walls, 2000), ozone layer depletion (Canan et al., 2015), and as a result, and perhaps most importantly, climate change (Huang et al., 2016).

Some researchers have carried out different studies on environmental challenges and also examined how environmental changes impact on the inhabitants of earth. For instance, Zachariadis (2016) argues that climate change itself is responsible for a wide range of consequences, such as sea-level rise, ocean acidification, droughts, glaciers loss, and increased frequency of extreme weather events such as heat waves, floods, storms, and hurricanes. Besides these severe consequences, Wheeler and Von Braun (2013) also argue that climate change impacts crop productivity and brings consequences for food availability, which could potentially interrupt food supply chains and our progress toward a world without hunger. From such prior research, it is generally recognized that environmental challenges are often associated with the way we live and consume, which impact the other two dimensions of sustainability (i.e., the natural environment dimension is impacted by and impacts both the economic and social dimensions).

To proffer solution to these continuous environmental challenges, scholars, industry, and civil society have been looking for the best approaches and mechanisms that could mitigate or remove the impact of the activities of organizations, supply chains, and communities on the natural environment. Research and practice converge to the fact that to achieve superior environmental performance organizations, supply chains, and communities must align all their internal processes (including their decision-making processes) to focus on the impact of their activities on the natural environment (Joyce and Paquin, 2016). This is what the literature refers to as green operations (Nunes and Bennett, 2010) and green supply chains (Srivastava, 2007; Wong et al., 2012). Adopting such a perspective in a coherent and comprehensive way facilitates the emergence of green business models (Nair and Paulose, 2014), where the focus of the organization, supply chain, or community is to reduce or eliminate the impact of their activities on the natural environment.

However, green operations, green supply chains, and green business models cannot be considered in isolation from innovation. Changes and innovations are central elements that will allow companies to enhance their environmental performance and consequently evolve on their sustainability trajectory (Silvestre, 2015). For this to happen, the availability of the innovation (i.e.,

technology, product, processes, business practices, or policy approach) is not enough (Silvestre and Silva Neto, 2014). The willingness to adopt such an innovation and to truly incorporate it into business processes (i.e., to change) are also mandatory for the success of the initiative. These paths to green approaches require changes in the mindset of top management and staff within those organizations.

### **Social challenges**

Another pressing issue which prevents us from achieving a satisfactory sustainable development trajectory is the social challenge that the world is currently facing. This challenge includes, for example, poverty (Bush, 2010), social exclusion (Hall et al., 2012), corruption (Silvestre et al., 2018), human rights (Giuliani, 2016), and war and disordered immigration (Ousey and Kubrin, 2018).

Prior research on social challenges has examined how this dimension impacts our lives as a society (Govindan et al., 2014). For instance, McAra and McVie (2016) show that violence is strongly associated with poverty at the household and neighborhood levels. Khan et al. (2010) also argue that poverty is one of the reasons that women are forced into prostitution, while Shively (2004) reinforces the idea that the poor are both agents of forest degradation and victims of forest loss. From such prior research it is generally understood that social challenges also impact on, and are impacted by, the other two dimensions of sustainability (i.e., economic and environmental), implying that these three dimensions are strongly interconnected.

Scholars, industry, and civil society have been discussing and proposing strategies to address these social challenges. Similar to the environmental discussion, research and practice on social challenges converge to the fact that to achieve superior social performance it is necessary to align all internal processes (including decision making processes) to focus on the impact of their activities on society (Matos and Silvestre, 2013). This is what the literature most often refers to as corporate social responsibility or CSR (Schrempf-Stirling et al., 2016). Adopting such a perspective in a coherent and comprehensive way can allow the emergence of social business models (Yunus et al., 2010) where the focus of the organization, supply chain, or community is concentrated on reducing or eliminating the impact of their activities on society.

Although social initiatives in operations and supply chains may have different motivations and may engage different stakeholder groups (Morais and Silvestre, 2018), they also cannot be considered in isolation from innovation (van der Have and Rubalcaba, 2016). Changes and innovations are equally central to the process companies undertake to enhance their social performance and consequently evolve on their sustainability trajectory (Silvestre, 2015). Similar to green innovations, the simple availability of social innovation is not sufficient (Cajaiba-Santana, 2014). A willingness to adopt and truly incorporate such innovations into business processes (i.e., the willingness to change) is also necessary. These paths to socially responsible behavior also require changes in the mindset of top management and staff within organizations.

### **Entrepreneurship and innovation are essential drivers of sustainable development, especially in times of disruption in Nigeria.**

Below are ways in which they drive Sustainable Development.

**Adaptation to Disruption:** Entrepreneurs often thrive by identifying opportunities in times of disruption, whether it's a technological shift or a global crisis. They can create innovative solutions to address new challenges.

**Technology and Digital Transformation:** Embracing technology and digitalization is crucial. Innovations like AI, blockchain, and IoT can revolutionize industries and contribute to sustainability efforts through efficient resource management and reduced environmental impact.

**Circular Economy:** Entrepreneurs can pioneer circular economy models, designing products and services with sustainability in mind, reducing waste, and promoting recycling and upcycling.

**Clean Energy and Environmental Solutions:** Startups in renewable energy, clean tech, and eco-friendly products play a vital role in reducing our carbon footprint and mitigating climate change.

**Social Entrepreneurship:** Businesses with a social mission are on the rise, addressing issues like poverty, education, and healthcare. They align profit with purpose and contribute to sustainable development goals.

**Collaboration and Ecosystems:** Entrepreneurs should collaborate with governments, NGOs, and academia to create ecosystems that support innovation and sustainable development. Public-private partnerships are powerful tools.

**Resilience and Risk Mitigation:** Disruptions come with risks. Entrepreneurs need to build resilient businesses, consider risk mitigation strategies, and be prepared to adapt to changing circumstances.

**Inclusive Innovation:** Ensure that innovation benefits all segments of society. Innovations should be accessible and affordable, promoting social equity.

**Education and Skill Development:** Supporting entrepreneurship education and skill development is vital. It empowers individuals to become innovators and contribute to sustainable development.

**Measuring Impact:** Entrepreneurs should track and report the social and environmental impact of their innovations, demonstrating their contribution to sustainable development goals.

### **Theoretical Framework**

This study is anchored on Economic entrepreneurship theory, Sociological entrepreneurship theory, Diffusion of Innovation Theory and Sustainability Theory

#### **Economic Entrepreneurship theory**

This theory was proposed by Richard Cantillon who considered the economy as one of the fields affected by entrepreneurship. According to Cantillon, an entrepreneur acts as both 'producers' and 'exchangers'. An entrepreneur's action greatly affects the supply chain of raw products being collected, to become an end product for consumers. Cantillon included everyone as an entrepreneur from their little actions starting from a beggar to restaurant owners as they also have their source of unfixed income; this counts as a unique factor and made his theory stand out from other entrepreneurship theories.



## **Sociological Entrepreneurship theory**

This theory talks about the social aspects of entrepreneurship. If an entrepreneur considers all the social aspects such as social taboos, customs, culture, and other religious beliefs, they might have a well-established business that is up to mark with every consumer's expectation. Max Weber propounded the sociological entrepreneurship theory and stated that entrepreneurs should accept the system of a society for the development of themselves as well as their startup.

## **Diffusion of Innovation Theory**

Everett Rogers' Diffusion of Innovation Theory describes the pattern of how new ideas or innovation spreads throughout a society. Under this theory, innovation spreads from a concentrated few user to a large general population of users across time as knowledge and use of the innovation builds.

## **Sustainability Theory**

Sustainability is: a measure of how the growth, maintenance, or degradation of a resource or set of resources affects a population's ability to sustain itself. Indicators are used to measure these effects. A resource can be natural or human, and includes knowledge, technical, financial and other social systems.

## **Application to the Study**

Entrepreneurship and Innovations for Sustainable Development are major driving forces greatly needed in this era of disruption. Organizations and governments all over the world are putting efforts in ensuring sustainable growth and development by embracing the above-mentioned theories.

## **Findings and Conclusion**

While sustainable development is defined by different scholars differently with different meaning, it remains a popular and an important concept for entrepreneurship and Innovations policy, practice, and theory. Entrepreneurship and innovation are essential drivers for sustainable development, helping society adapt to disruptions while addressing environmental, social, and economic challenges. They hold the potential to shape a more sustainable and resilient future for the global world.

## **Recommendations**

Government should make policies that will favor small, medium and large-scale businesses in order to reduce unemployment rate and increase GDP.

Government should create conducive industrial environment in terms of providing the rural and urban areas with basic infrastructures such as industrial zones, affordable, steady and reliable electricity, water supply, education and health services and security.

More so, Nigeria government should support agriculture and manufacture, alleviating poverty, improve income distribution, enhance political security and civil liberty, and build capabilities that would improve the standard of living of its citizens.

## References

- Aondoseer A., (2018). Entrepreneurial factors and development of cooperative organizations in Nigeria: A review of the literature. Universiti Teknologi Malaysia. International Journal of Scientific and Research Publications. DOI: 10.29322/IJSRP.8.11.2018. p8315
- Baptista, R., Karaöz, M., & Mendonça, J. (2013). The impact of human capital on the early success of necessity versus opportunity-based entrepreneurs. *Small Business Economics*, 42(4), 831-847.
- Barot, H. (2015). Entrepreneurship - A key to success. *International Journal of Business and Management*, .3(1), January 2015; 163-165.
- Bolton, D.L. & Green, B., (2012). Individual entrepreneurial orientation: development of a measurement instrument. *Education and Training Training*, 54(2/3), p.219-233. Available at: 290 [http://www.researchgate.net/publication/263598041\\_Individual\\_entrepreneurial\\_rientate\\_on\\_Development\\_of\\_a\\_measurement\\_instrument](http://www.researchgate.net/publication/263598041_Individual_entrepreneurial_rientate_on_Development_of_a_measurement_instrument).
- Bush, R., (2010). Food riots: poverty, power and protest. *Journal of Agrarian Change* 10 (1), 119-129.
- Calcott, P., Walls, M., (2000). "Can downstream waste disposal policies encourage upstream design for environment"? *Am. Econ. Rev.* 90 (2), 233-237.
- Cajaiba-Santana, G., (2014). Social innovation: moving the field forward. A conceptual framework. *Technology Forecast Social Change* 82, 42-51.
- Canan, P., Andersen, S.O., Reichman, N., & Gareau, B., (2015). Introduction to the special issue on ozone layer protection and climate change: the extraordinary experience of building the Montreal Protocol, lessons learned, and hopes for future climate change efforts. *J. Environ. Soc. Sci.* 5 (2), 111-121.
- Chang, W.J., Wyszomirski, M., (2015). What is Arts Entrepreneurship? Tracking the Development of its Definition in Scholarly Journals. *Journal of Entrepreneurship in the Arts*, Vol.4, No.2, 2015; 11-31.
- Croci, Cassidy L., (2016). "Is Entrepreneurship a Discipline?". Honors Theses and Capstones. 296. Cited from <https://scholars.unh.edu/honors/296>. University of New Hampshire Scholar's Repository.
- Epstein, M.J., Buhovac, A.R., 2014. Making Sustainability Work: Best Practices in Managing and Measuring Corporate Social, Environmental, and Economic Impacts. Berrett-Koehler Publishers, San Francisco, CA, USA.10
- Franceschini, S., Faria, L.G., & Jurowetzki, R., (2016). Unveiling scientific communities about sustainability and innovation. A bibliometric journey around sustainable terms. *Journal of Clean. Production* 127, 72-83.
- Giuliani, E., (2016). Human rights and corporate social responsibility in developing countries' industrial clusters. *Journal of Business Ethics* 133 (1), 39-54.
- Greenstone, M., Hanna, R., (2014). Environmental regulations, air and water pollution, and infant mortality in India. *Am. Econ. Rev.* 104 (10), 3038-3072.
- Hall, J., Matos, S., & Silvestre, B., (2012)a. Understanding why firms should invest in sustainable supply chains: A complexity approach. *International Journal of Production Research* 50 (5), 1332-1348.
- Hall, J., Matos, S., Sheehan, L., & Silvestre, B., (2012) b. Entrepreneurship and innovation at the base of the pyramid: A recipe for inclusive growth or social exclusion? *Journal of Management Studies* 49 (4), 785-812.
- Hessels, J., & Naudé, W., (2019). The Intersection of the fields of entrepreneurship and development economics: A review towards a new view. *Journal of Economic Surveys*, 33(2), 2019; 389-403.
- Huang, J., Yu, H., Guan, X., Wang, G., Guo, R., (2016). Accelerated dryland expansion under climate change. *Natural Climate Change* 6 (2), 166.
- Joyce, A., Paquin, R.L., (2016). The triple layered business model canvas: a tool to design more sustainable business models. *Journal of Clean. Production.* 135, 1474-1486.
- Kee, H.S.N. and D.M.H., (2012). The Issues and Development of Critical Success Factors for the SME Success in a Developing Country. *International Business Management*, 6(6), pp.680-691.

- Khan, M.S., Johansson, E., Zaman, S., Unemo, M., Rahat, N.I. & Lundborg, C.S., (2010). Poverty of opportunity forcing women into prostitution—a qualitative study in Pakistan. *Health Care Women International*. 31 (4), 365–383.
- Martin, R. & Sunley, P., (2006). Path dependence and regional economic evolution. *Journal of Economic Geography*. 6 (4), 395–437.
- Matos, S. & Silvestre, B.S., (2013). Managing stakeholder relations when developing sustainable business models: the case of the Brazilian energy sector. *J. Clean. Prod.* 45, 61–73.
- McAra, L. & McVie, S., (2016). Understanding youth violence: the mediating effects of gender, poverty and vulnerability. *Journal of Criminal Justice* 45, 71–77.
- Nair, S. & Paulose, H., (2014). Emergence of green business models: the case of algae biofuel for aviation. *Energy Pol.* 65, 175–184.
- Nunes, B., Bennett, D., (2010). Green operations initiatives in the automotive industry: an environmental reports analysis and benchmarking study. *Benchmarking International. J.* 17 (3), 396–420.
- Ousey, G.C. & Kubrin, C.E., (2018). Immigration and crime: assessing a contentious issue. *Annual Rev. Criminal. J.* 63–84.
- Olatomide, W. O. & Omowumi, A. O. (2015). Factors affecting entrepreneurship development in agribusiness enterprises in Lagos State, Nigeria, *Global Journal of Management and Business Research: B Economics and Commerce*, 15(7): 24-32
- Oyeku, O. et al., (2014). Entrepreneurial Capability and Entrepreneurial Success of Small and Medium Enterprises: A Review of Conceptual and Theoretical Framework. *Research on Humanities and Social Sciences*, 4(17), pp.136–144. Available at: [http:// iiste.org/Journals /index.php/RHSS/article/view/14869](http://iiste.org/Journals/index.php/RHSS/article/view/14869).
- Seyfang, G. & Smith, A., (2007). Grassroots innovations for sustainable development: towards a new research and policy agenda. *Environmental Politics*. 16 (4), 584–603.
- Shively, G.E., (2004). Poverty and forest degradation: introduction to the special issue. *Environmental Developmental Economics*. 9 (2), 131–134.
- Schrempf-Stirling, J., Palazzo, G. & Phillips, R.A., (2016). Historic corporate social responsibility. *Acad. Manag. Rev.* 41 (4), 700–719.
- Silvestre, B.S., (2015)a. Sustainable supply chain management in emerging economies: environmental turbulence, institutional voids and sustainability trajectories. *International Journal of Production Economics*. 167, 156–169.
- Silvestre, B.S., (2015)b. A hard nut to crack! Implementing supply chain sustainability in an emerging economy. *J. Clean. Prod.* 96, 171–181.
- Srivastava, S.K., (2007). Green supply-chain management: a state-of-the-art literature review. *International Journal of Management Review*. 9 (1), 53–80.
- United Nations, (2016). Working Arrangements for the 2016 Session of the Economic and Social Council, 24 July 2015-27 July 2016. Retrieved from: [www.un.org/ecosoc/en/sustainable-development](http://www.un.org/ecosoc/en/sustainable-development), on May 8th, 2017.
- Van der Have, R.P., & Rubalcaba, L., (2016). Social innovation research: an emerging area of innovation studies? *Res. Pol.* 45 (9), 1923–1935.
- Wheeler, T. & Von Braun, J., (2013). Climate change impacts on global food security. *Science* 341, 508–513.
- Wong, C.W., Lai, K.H., Shang, K.C., Lu, C.S. & Leung, T.K.P., (2012). Green operations and the moderating role of environmental management capability of suppliers on manufacturing firm performance. *International Journal Production Economics* 140 (1), 283–294.
- Zachariadis, T., (2016). Climate change impacts. In: *Climate Change in Cyprus*. Springer Briefs in Environmental Science, Springer, New York, USA, pp. 25–49