

The Nexus between Innovation and Entrepreneurship: the Extractive Industry Perspective

¹Enyindah, Charles W. & ²Ejire, S.

^{1&2}*Department of Business Administration and Management,
Ken Saro – Wiwa Polytechnic, Bori, Rivers State*

Abstract

This paper establishes the nexus between innovation and entrepreneurship in the extractive industry in Nigeria. Innovation is a *sin qua non* for the sustained operations of profitable endeavors. Entrepreneurship translates the improvements in products and service delivery into monumental wealth for the entrepreneurs and other stakeholders in enterprises. The historic J. Schumpeter theory of entrepreneurship underpinned the entrepreneurship discourse. A qualitative approach was employed in this study. This paper is compartmentalized into: introduction, operational definition of innovation, the concept of entrepreneurship and the nexus of entrepreneurship and innovation, conclusion and recommendation. This paper concludes that there is a pivotal linkage between innovation and entrepreneurship in organizations in the extractive industry. There is thus no coterminous existence of innovation and entrepreneurship. This is therefore a fundamental linkage expedient for enterprise success.

Keywords: *Innovation, Entrepreneurship, Entrepreneurs,
Enterprise, Product extractive.*

Corresponding Author: Enyindah, Charles W.

Background to the Study

As expedient as the establishment of businesses are to the stakeholders, the growth of such organizations occupies a cardinal position in the discourse of entrepreneurs and Chief executives of organizations. Innovation is become one driver to the growth of organizations set up by entrepreneurs of such firms. Innovation assists organization to growth from one stratum to another. Growth is measured by increase in turnover and profit. This connotes that there can only be innovation when something such as product or service has been in existence. The improvements made on existing product or service is deemed as innovation. Entrepreneurs will seek to explore the innovations made in order to maximize wealth creation in the Nigerian extractive industry. It seems therefore that entrepreneurs response reciprocatively to innovations. Innovation is widely known as the lifeblood of corporate survival and growth (Zahra and Covin, 1994). It is so pivotal that the continued existence and growth organizations hinge on its continued practice.

Hence, entrepreneurs. Chief executives and managers of organizations must consider it as key to their success and corporate continuity. Businesses exist in the midst of rivals. In such competitive environment, it is pertinent that organizations showcase what is new and needed by their customers. The world generally is replete with change. Businesses must therefore continue to innovate and effect changes for the continuity, expansion and growth of their organizations. Innovation is therefore recognized to play pivotal role in creating value and sustaining rivalry in the world of business that is replete with competitive forces (Fagerberg, 2003). Innovation represents core renewal process in an organization (Bessart et al, 2005). The effect of innovation strategy on the performance of new technology venture in China was dependent on a hybrid of environmental factors including environmental turbulence and institutional support and the relationship based on strategies of the ventures. The result indicates the need for simultaneous consideration of environment and relationship based strategy (Hayang and Kwaku, 2001; Wipp and Clark, 2005; Bacon, and Butler, 1998). Although these scholarly works exist, there is no study to the best of our knowledge that establishes the connectivity of innovation and entrepreneurship in extractive sector in Nigeria. This is gap in literature which this paper intends to abridge.

Objective of the Study

The objective of this paper is to establish the connection between innovation and entrepreneurship in organizations particularly in Nigeria. Drawing from the Social Exchange Theory which states that series of interactions generate obligations (Emerson, 1976), and that interactions are usually interdependent and contingent of one another (Blau, 1964).

Review of Literature

Operational Definition of Innovation

Innovation is deemed as invention that has been exploited commercially (Martin, 1994). Innovation is widely known as the lifeblood of corporate survival and growth (Zahra and Covin, 1994). It is so pivotal that the continued existence and growth organizations hinge on its continued practice. This definition does not consider the size of innovation made in the industry but its relevance the stakeholders in the industry.

Innovation encourages the further processing of output of the creative process (the idea) in order to permit the exploitation of its potential value through development (Sullivan 2008). Alternatively, innovation is expressed by (Roberts 1998) = invention + exploitation. Sequel to the above, innovation can be viewed as the systematic approach to creating an environment based on discovery, invention and commercial exploitation of ideas that satisfy unmet needs (Bacon and Butler, 1998). There may be firms that do not engage in product innovation such as the service industry. Hence, replacing product innovation with creativity. Creativity is an innate capability in all human beings. This underscores the fact that creativity leads to innovation and that it is natural in all individuals.

Creativity is the mental process that results in the production of new ideas and concepts that are appropriately useful and actionable. The creativity process can be said to consist of four phases namely: preparation, incubation, illumination and verification (Wallas 1926). Contemporary reconsideration of this concept included elaboration as the final phase (Kao, 1989). This connotes even when creativity is in a mental process, it is yet in phases. Illumination and verification phases add to the existing four phases according to (Wallas, 1926).

Creativity entails a degree that is imperative for innovation. Although, creativity and innovation are used interchangeable, bringing out something new that has never existed. This creation of something new emanates from the creative ability of a firm and provides opportunities to be exploited by entrepreneurs in order to expand the frontiers of their market shares and make more profits (Roberts, 1988).

Quantitatively put, innovation=Invention+ exploitation

Hence, it creates an environment based on creative discovery, invention and commercial exploitation of ideas that serve to satisfy needs of customers both expressed and latent (Bacon and Butler, 1998). For change to have to be termed innovation, it must have some degree of desirability and intentionality (West and Fair, 1999). This definition of innovation has included the dimension of “degree of desirability and intentionality” of the innovators. This purports that what is innovated should be something that is desired and deliberated constructed to meet certain needs and serve some objectives.

Innovation is described as “creative destruction” that is cardinal for economic growth (Schumpeter, 1942). “The literature characterizes innovation as a multidimensional activity whereby organizations transform ideas into new or improved products, services or processes and bring them to market (Thompson, 1965 Hauser et al, 2006). It is equally away for organizations to advance, compete and differentiate themselves successfully in their marketplaces (Baregbah et al, 2009). The goal of innovation is to bring out something better than existing products that solves issues and the innovated products are able to substitute existing solutions.

Kline and Rosenberg (1986) put innovation as follows:

It is a serious mistake to treat an innovation as if it were a well-defined homogenous thing that could be identified as entering the economy at a precise data or

becoming available at a precise point in time. The fact is that most important innovations go through drastic changes in their lifetimes, change that may and do often do, totally transform their economic significance. The subsequent improvements in an invention after its first introduction may be vastly more important, economically than the initial availability of the invention in its original form' (Kline and Rosenberg, 1986).

It is therefore considered that a single innovation is a product of many interrelated innovations. This underscores why innovation is applied from system perspective rather than from exclusively an individual inventions/ innovation. Innovation is the generating, acceptance and implementation of new ideas, processes, products or services (West and Anderson, 1996 quoted in wrong et al, 2008). Innovation can be defined as the effective application of processes and products, new to the organization design to benefit its shareholders (Kuberly 1981). This implies that innovation entails adopting new processes and product design in order to benefits all the persons and groups that have derive some benefits from its practice and the organizations where these innovations are practiced.

Innovation is the process of making changes large and small radical and incremental to products processes and services that results in the introduction of something new for the organization that adds value to customers and contributes to the knowledge store of the organization (Sullivan, 2008). A process or method is adds to the innovated when there is a change, small, radical and incremental that culminates into something novel to the users of these products and it adds value to the already existing one which customers contemporarily enjoy. This addition will continue to attract customers to patronize an organization's product.

Innovation and Creativity

Innovation and creativity are used interchangeably in literature (Baregheh, Rowley and Sambrook, 2009, Hauser, Tellis, and Griffin, 2006 and Fagerbug, 2003). However, the terms do not have the same connotation in real terms. Creativity is deemed as a key building block for innovation, (Rosen field and Servo, 1991). A distinction between invention and innovation is that while invention is the first occurrence of an idea from a new product or process, innovation is the first commercialization of an idea. A further distinction between invention and innovation is that invention can occur anywhere e.g. Universities, Polytechnics Monotechnics, innovations occurs mostly in organizations in commercial spheres (Rogers, 1995). While invention is imperative, the continuous and subsequent improvements on an invention often its introduction may be very vital, than the initial availability of the intention in its original form (Kline and Rosenberg, 1986), invention with creativity. The invention above definition can then be recanted as follows:

Innovation= Creativity+ Exploitation

The applicability of this mathematical definition is more within the service industry.

Principles of Innovation

For innovation to be useful it must be guided by principles that aid the utility of its practice. Purposeful systematic innovation begins with the analysis of the sources of new opportunities (Drucker, 1998). Innovation is work rather than genius. It reforms knowledge. It also requires focus (Druckers, 1998).

In innovation as in other endeavours, there are talents and there is knowledge. Above all, innovation requires hard, focussed and purposeful work (Drucker, 1998). The importance of innovation in the face of intense rivalry in juxtaposition with fast changing markets and technologies lead to concretizing its essence (Drucker 1985). It is expedient to categorically state that innovation is the responsibility of every Chief executive officer of an organization. It emanates from a conscious search for opportunities. Innovations are specific functions of entrepreneurship whether in an existing business, public institution or a new venture commenced by a single person. The essence of innovation to an organization is that it is a means by which the entrepreneur either creates wealth- producing resources or endows existing resources with enhanced potential for creating previous works (Drucker 1998, Bressant, et al, 2005).

Entrepreneurship

(Schumpeter, 1949) asserted that Entrepreneurship as the function of an enterprise and not necessarily that of as a physical person. As a result of the source of ownership, managing the entrepreneurial function within the company lies according to Schumpeter, with the executive function of management. It support that management of innovation within large companies are quite lucid and as such they parallel with modern theories of corporate renewal that employees only have the essential of organization wide creativity and entrepreneurship (Maidiaque, 1980, Barrlett and Ghoshal 1993. Burahman 1983, Teece, 1993). The entrepreneurial function needs not to be embodied in a physical person and in particular in a single physical person.

Examining the nexus between entrepreneurship and innovation, Shane and Venkataraman asserted that 'entrepreneurship involves the nexus of two phenomena the presence of the lucrative opportunities and the presence of enterprising individuals'. This implies that the availability of lucrative opportunities must be blended with the presence of entrepreneurs to profitable harness the opportunities. Innovation working in isolation of entrepreneurs and effectuating the practice of entrepreneurship.

Entrepreneurship is a multi-dimensional concept (Bula, 2012a). Schumpeter (1954) defines entrepreneurship from the economist perspective by focussing on the perception of new economic opportunities and the subsequent introduction of new ideas in the market. Entrepreneurship is the discovery of opportunities and the subsequent creation of the new economic activity often via the creation of new organization (Reynolds,2005). This imports the entrepreneurship entails discovery of opportunities and the entrepreneur taps the opportunities very profitability. Entrepreneurship is a veritable aspect of economic progress as it manifests its fundamental importance in different ways (a) by identifying ,assessing and exploiting business opportunities (b) by creating new firm and/or renewing existing ones by making them more dynamic and v(c) by driving the economy forward through innovation,

competence, job creation and by generally improving the wellbeing of society(Alvaro, Domingo and Salvador,2005).

Conclusion

This paper concludes that there is significant nexus between innovation and entrepreneurship in the extractive industry in Nigeria. This is because while innovating on what is novel and adds value to customers, entrepreneurship converts the products of innovation into gigantic wealth creation for inventors, entrepreneurs and other stakeholders in the industry. It is even the entrepreneurs that disseminate and illuminate on the novelty of the innovation. Since inventions come through research in tertiary institutions such as universities, polytechnics and monotechnics and other research centres, it becomes imperative for an integrative effort to establish the blend between the research activities and outcomes as well as the entrepreneurial ventures in Nigeria. This will ensure the development and prosperity quest in the Nigerian nation. It is pertinent for us to consider the historical perspective of the enviable developmental strides of China and the United States of America and other developed nations. It is well known in history that the integration of research and entrepreneurship (industry) has contributed immensely to their economic advancement, Hence, the exhortation for a nexus between innovation and entrepreneurship in order to enhance our prosperity in our nations in Nigeria.

Recommendations

From the foregoing, this paper recommends academic /industry partnership as a panacea to poverty reduction in Nigeria. This is also likely to mitigate the high level of unemployment and crimes in our countries. There should also be a forum where the findings of researchers in the research institutes, universities, polytechnics and monotechnics in the country are illuminated for use to entrepreneurs and prospective entrepreneurs in the sector. The products of our research should also be made available to our entrepreneurs for conversion into commercial production. It is also particularly vital that there should be a feedback from the industry on the reactions of customers to the innovated products. This will pave the way for possible improvements in future researches and the development of new products for consumers. This will ensure sustained customer patronage, wealth creation and prosperity. Researchers are quite expensive to embark upon. Hence, there should be a defined percentage of profit after tax of Limited Liability companies and other forms of businesses in each country earmarked for research and made available to researchers in the tertiary institutions and research centres. To ensure efficacy, the legislative arm of Government of each should enact a law in this respect. The Executive arm should be collaborated with in order to ensure effective implementation. The paper further recommends the training and retraining of researchers from various institutions and research centres in order to enhance their research capabilities and to cope with the globally accepted standards of reliable research outcomes.

References

- Bacon, F. & Butler, T. (1998). *Achieving planned innovation a proven suite for creating successful new products and services*. New York, Free Press
- Baregbeh, A., Rowely, J. & Sambrook, S. (2009). Towards a Multidisciplinary definition of innovation. *Management Design*, 47, 8, 1323-1339.
- Bargeman, R. A.(1983). Corporate Entrepreneurship and Strategic management. Insights from a process study. *Management Science*, 29,1349-1364.
- Barlett, C.A. & Ghoshal, S. (1993). Beyond the M-form: Toward a Managerial Theory of the Firm. *Management Journal*, 14, 23-46.
- Bassaent, J., Lamming, R. & Noke, H. & Philips, N. (2005). *Managing Innovation on Beyond the Steady State Technovation*, 25, 12, 1366-76
- Blau, P.M. (1964). *Exchange kind power in social life*. New York; John wisely.
- Bolton, W.K. & Thompson, T.I. (2000). *Entrepreneurship, Talent, Temperament technique Butterworth*.Oxford: Heineman.
- Cropanzano R. & Mitchell, M.S. (2005). Social exchange theory. An interdisciplinary Review. *Journal of management* vol. 31, no 6, December 2005, 874- 900
- Drucker, P. (1970). Entrepreneurship in Business Enterprise, *Journal of Business Policy*, vol.1, GEM, 2001, Global Entrepreneurship Monitor Executive Report, GEM, London.
- Drucker, P.F. (1998). *The principle of innovation*. Harvard Business Review 3-8, November-December,1998.
- Emerson, R.M. (1976). *Soocial exchange theory*. Annual Review of sociology, 2;335-362
- Eraglu, O. & Picak, M. (2011). Entrepreneurship National Culture and Turkey, *International Journal of Business and Social Sciences*, 2,16.
- Freeman, C. (1982). *The Economies of industrial innovation*. London, Printer
- Hageboorn, J. (1996). *Innovation and entrepreneurship*. Schumpeter Revisited, Industrial and Corporate change, 3, 5, 883-896.
- Haiyang, H. & KarakuAtuahence-Gima (2001). Product innovation strategy and the performance of new technology ventures in china. *Academy of Management Journal*, 44, 6, 1123-1134.

- Hisirich, R.D. (1990). Entrepreneurship/ Entrepreneurship, *am Psychology*, 45(2), 209- 222.
- Ketchen, D.J. (JR), Duance Ireland, R. & Snow, C.C. (2007). Strategic Entrepreneurship, Collaborative innovation and Wealth Creation, *Strategic Entrepreneurship Journal*, 1, (3), 2007.
- Kliie, S.J. & Rosanbarg, N. (1986). *An Overview of Innovation* in R. Landau and N. Rosenberg (eds.). *The Positive Skin Strategy: Harnessing Technology*.
- Maidigue, M.A. (1980). Entrepreneurs Champions and Technological Innovation Sloan. *Management Review*-59-76.
- Mintxarg, H, (1994). *The Rise and Fall of Strategic Planning*, New York, Free Press.
- Onuoha, G. (2007). Entrepreneurship, *ALST, International Journal* 10, 20, 32.
- Schumpeter, J. (1953). *History of Economic Analysis*. New York: Allen and Unwin, for Economic Growth, Washington, D.C. National Academy Press, pp. 275-304.
- Schumpeter, J.A. (1934). *The Theory of Economic Development*. London, oxford university press.
- Schumpeter, J.A. (1949). *Economic theory and entrepreneurial history change and the entrepreneur postulates and patterns of entrepreneurial history*. Cambridge: Harvard University of press.
- Schumpeter, J.A. (1965). *Economic theory and Entrepreneurial history*. In Ailken, H.G. (ed) *Explorations in enterprise*. Cambridge, MA: Harvard University Press
- Schumpeter, J.A. (1986). *History of Economic Analysis*. London, Allen and Unwin.
- Stevenson, H.H & Gumpteryly D.E. (1985). The Heart of Entrepreneurship. *Harvard Business Review*, 85(2): 85-94.
- Stevenson, H.H. (1983). *A perspective on Entrepreneurship*. Harvard Business School, Working paper 9-384-131.
- Stopper, W.E. (1981). *Aspects of Schumpeter's theory of evolution*, in H. Frisch (ed), *Schumpeterian Economy*. New York, Praeger.
- Teece, D.F. (1993). The dynamics of industrial capitalism: Perspectives on Alfred Chandlers Scale and Scope, *Journal of Economic Literature*, 31, 199-225.
- Thomas A.S.X. & Mueller, S.I. (2000). A Case for commutative entrepreneurship. Assessing the Relevance of Culture E.J. *Int. Bus. Second Quarterly* 31(2), 287-299.