

## **EFFECT OF ENTREPRENEURSHIP CREATIVITY ON WASTE UTILIZATION (A CASE STUDY OF PADSON INDUSTRIES LIMITED, ILORIN, KWARA STATE)**

**Oni Folashade Elizabeth**

Student, Department of Entrepreneurial and Business Management, Faculty of Management Sciences, National Open University of Nigeria

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**ABSTRACT:** *The study investigates the effect of entrepreneurship creativity on waste utilization using Padson Industries Limited as case study. It is widely accepted that waste utilization is a global problem. This problem is even more pronounced in developing countries such as Nigeria where waste utilization is a major concern. Studies have shown that the volume of waste does not actually constitute the problem but the ability or inability of governments, individuals and waste disposal firms to keep up with the task of managing waste and the environment. The objectives of this research are to: examine the influence of creativity education on waste conversion; determine to what extent creativity education has influence waste recycling; evaluate the effect of creativity skill on waste conversion and to determine the relationship between creativity skill and waste recycling. The data required for this study was gathered through the instrument of questionnaire. 75 (seventy-five) were administered out to the employees and 63 (sixty-three) were randomly sampled. To attain the objectives of this study, data collected were coded using SPSS to run Pearson Product Moment Correlation Coefficient to test the hypothesis. The result indicates that there is a positive relationship between entrepreneurship creativity and waste utilization. A number of recommendations were made which includes: organization to utilize the wasteful resources in a more productive way; organizations should improve and increase the level of their waste management so as to boost the level of their productivity; creativity skills needed for waste utilization should be integrated into the curriculum of entrepreneurship education programme in Nigerian Universities. Finally, it is concluded that waste re-use and recycling activities contribute positive impact to waste utilization. Furthermore, the researcher asserted that a higher public involvement in waste utilization such as re-use and recycling is likely to ensure a clean and healthy environment and improve youth skill, enrich self-development and serve as external source of income.*

**KEYWORDS:** Entrepreneurship Creativity, Waste Utilization, Waste Management, Creativity Education, Waste Recycling, Creativity Skill, Waste Conversion, Nigeria

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## **INTRODUCTION**

### **Background of Study**

Nigeria, the most populous country in Africa, is naturally endowed with millions of unexploited minerals, and a wealth of human capital by virtue of its estimated population of over 180 million in 2017. It is the world's eighth largest exporter of oil, and Africa's second largest economy, after South Africa.

The economy situation of Nigeria needs serious attention, entrepreneurship is the way forward. Waste utilization has been a growing concern to both government and private institution. The

huge investment by some organization over the years has not yield any meaningful result. However, the entrepreneurship creativity on waste utilization is a research work that came about by providing solution to many entrepreneurs to utilize the wasteful resources in a more productive way.

Creativity education and skill acquisition has become a key facilitating approach in waste utilization into reasonable output for growth and development in order to increase employment opportunities. Perhaps, the most interesting part of many entrepreneurs is that they tend to look at certain waste or materials as if it can be useful in other areas. But often decision make on particular resources may not be useful, but such resources should not be discarded but could be useful in other areas of operation or activity. This project came as the result of a request from the need to inform entrepreneurs of different organization to consider their long-term wasteful strategy in the light that utilizing the resources can bring to them.

Turning our quantity advantage into a comparative advantage, National Industrial Skill Development Programme (NISDP), Abuja. Studies by UNIDO (2012) show that Micro, Small and Medium Enterprises (MSMEs) has the propensity to drive the Nigerian Economy. MSMEs account for over 80% of enterprises that employ about 75 % of the Nigeria's total workforce, and therefore formulating and effectively implementing MSMEs friendly policies represents innovative ways of building the capacity to engage in creativity education and skill opportunities. Thus, playing a central and invaluable role in helping Nigeria realize its quantity advantage.

Entrepreneurship should develop interest in creativity education and skill to the extent it can drive waste utilization can deliver numerous aspect/area which opportunity exist.

Creativity education and skill tend to develop a new approach to job creation through waste recycling in a more productive ways and in-turn increase the profitability of the business, which is the prime driver in any business organization. Creativity has the ability and power to develop new idea, it involves imaginative thinking and search of solutions to problems posed by competition and total environment. Creativity is clearly a part and parcel of entrepreneurial skill required to successfully start a venture (Pretorius, Millard and Kruger 2005). This research work wants to explore into entrepreneurship creativity and waste utilization.

### **Significance of the Study**

The study of entrepreneurship creativity on waste utilization is very important and significant in the development of any economy. Because, many entrepreneurship and organization have ignored the fact that some waste can be re-used by converting them to a more productive usage. This research work informed entrepreneurship on how to effectively and efficiently utilize their waste in a way that it will be more productive to the organization and the society at large.

### **LITERATURE REVIEW**

Peter Drucker viewed innovation as the tool or instrument used by entrepreneurs to exploit change as an opportunity. In addition, both innovation and entrepreneurship demand creativity. Creativity is the ability to make or otherwise bring into existences something new, whether a new solution to a problem, a new method or device, or a new artistic object or form. Sir Ken

Robinson (2001) defines creativity as the; process of developing ideas that are originals and of value. For him creative intelligence is dynamic, diverse and distinct.

Entrepreneurship creativity has been defined as the generation and implementation of novel, appropriate ideas to establish a new venture (Ambali, 2010). This definition sits alongside much entrepreneurship literature on new venture formation (Lucke and Katz 2003), but fails to follow the growth of the business over time. Entrepreneurial creativity, however, exists before, during and after the lifetime of a particular business since it is shaped in part by the social world and by the individual decision maker (Fillis and Rentschler 2006). There are also a number of other contributing internal and external impacting factors.

Entrepreneurship according to Utomi (2002) is concerned with the persistent pursuits of opportunities to create wealth through creation of products or services that meet customer's needs. Similarly, Serrat (2009) postulated that entrepreneurship occurs when an individual creates a new venture, a new approach to an old business idea, using resources in a new way under the condition of risk. Osuala, (2005) in his own opinion, asserts that the processes of bringing together creative and innovative ideas and combining them with management and organizational skills in order to combine people, money and resources to meet an identified need and thereby, create wealth is entrepreneurship. From the foregoing, it is not enough; therefore, to conceive a business idea. What makes the differences is the ability to be creative with ideas and develop something new and out of the ordinary. There is hardly any business idea that has not been conceived by entrepreneurs. What gives muscle to a new business in the competitive market is the ability to be creative so as to arrive at concepts, products, services slightly or completely different from the existing norm. Creativity in entrepreneurship, will help individuals to exploit business opportunities more effectively and efficiently.

### **Creativity Education**

The ultimate goal of creativity education is to develop entrepreneurial effectiveness to different degrees, and in differing ways, based on a wide range of variables such as personality, prior learning, motivation, ability, and context. This allows students to achieve a balance of skills and knowledge related to the three contributory aspects: enterprise awareness, entrepreneurial mindset, and entrepreneurial capability.

Runco (2003) affirms that the thinking of children at all levels of ability is significantly influenced by the type of opportunities they are given. Offering learners, the right chances to develop their cognitive and creative potential should be a priority in the design of school curricula. A curriculum is the way in which domains of knowledge are made available to students (Craft, 2005) and it establishes a vision of the kind of society which policy-makers want and envisage for the future (Williamson & Payton, 2009). Creativity education, therefore, must be the type which empowers recipients with creative entrepreneurial skills and abilities.

Creativity education will however lead to increased employment, reduce poverty level, bring about entrepreneurs working together for common good and consequently establishing a stronger economy than the present Nigerian economy.

Entrepreneurship is becoming more and more acknowledged as an important driver of growth, innovation and job creation (Audretsch, 2002). The consequence of this is that policymakers are becoming increasingly interested in ways of enhancing entrepreneurship (Lundström and Stevenson, 2001) in different ways not least through creativity education (cf. European

Commission, 2004). The last two decades have also seen an explosion in the number of universities offering entrepreneurship courses and programs, in the USA as well as in Europe. One reason for this increase is that the structure and teaching style of traditional business education has been accused of impairing entrepreneurship.

### **Creativity Skills**

Skill is thought of as a quality of performance which does not depend solely upon a person's fundamental, innate capacities but must be developed through training, practice and experience. Although skill depends essentially on learning, it also includes the concepts of efficiency and economy in performance. Modern concepts of skill stress the flexibility with which a skilled operator reaches a given end on different occasions according to precise circumstances.

Creativity skill is the ability to have self-belief, boldness, tenacity, passionate, empathy, readiness to take expert advice, desire for immediate result, visionary and ability to recognize opportunity (Salgado-Banda, 2005). It can also be defined as the ability to create something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence (Hisrich & Peters, 2002).

The process of acquisition and development of entrepreneurial creativity skill is concerned with four main stages and these are (Pleshette, 2009):

1. To objectively analyze and identify the current and foreseeable skills needs to the business, in terms of management, administrative and technical skills and the relative importance of these.
2. To identify the entrepreneur's own personal goal and objectives and accurately analyze and evaluate his or her own skills and resources in relation to these.
3. To produce a realistic personal development plan for the potential entrepreneur.
4. To monitor the on-going performance of the entrepreneur once the business has started and progress made towards developing the new skills that had been previously identified as necessary for the success of the business. This applies both to the entrepreneur's personal needs and to the process of assisting employees to develop new skills that will also benefit the business.

### **Waste Utilization**

Literally, waste utilization is the process of managing waste materials (normally those produced as a result of human activities). Along this line, the Wikipedia Web Encyclopedia 2010 defines waste utilization as the collection, transport, processing, recycling or disposal and monitoring of waste materials. According to Atsegbua L.A. (2003:104), waste utilization does not just end at collection, transporting processing, recycling or disposal and monitoring of wastes materials but refers to the collection, keeping, treatment and disposal of wastes in such a way as to render them harmless to human and animal life, the ecology and environment generally. In other words, the primary aim of managing wastes is for the safety of human, animal, ecology and environment. We could as well add here that any other aim that goes in

contrary to the aims mentioned above does not constitute waste management. Attah (2009) added that waste utilization could also be said to be the organized and systematic dumping and channeling of waste through or into landfills or pathways to ensure that they are disposed of with attention to acceptable public health and environmental safeguard and that a proper waste utilization will result in the abatement or total elimination of pollution.

### **Waste Utilization in Nigeria**

In Nigeria, waste utilization has become an area of major concern. It appears to be a losing battle against the harmful consequences of unguided waste and the attainment of a clean healthy environment for all Nigerians. It is common sight in Nigeria today to see heaps / accumulation of festering waste dumps in our urban and commercial cities. All sides of residential apartments, the drains, the highways, corners of major or and minor streets, undeveloped plots of land have all become waste dumps for many households. As one writer puts it, waste increases in a geometrical progression and collection and disposal is at an arithmetical progression (Akinwale A, 2005).

Atsegbua L.A (2003) identified factors responsible for penetrating the crises experienced in the utilization of waste in Nigeria.

- Lack of Adequate Funding and Excessive Population
- Lack of Trained / Professional Waste Managers
- Lack of Effective Monitoring and Control
- Lack of Modern Technology / lethargy in Implementing Efficient Waste

### **Waste Conversion**

Conversion is the process of changing or causing something to change from one form to another. Waste Conversion or Re-Use is a process by which discarded materials like plastic bottles, sachet water bags, glass, paper, woody furniture, scrap metals etc. in their original form are utilized or sold to other users who need them. In other words, re-use is simply using materials for something other than the purpose for which they were originally designed (Bill, 2009). Waste conversion can be a creative process for using an item rather than throwing it away. Re-use conserves resources and energy too. Waste conversion/reuse is also known as “upcycling” as opposed to “recycling”, since materials such as plastic water bottles are often reused than recycled it can also be used for another purpose such as insulator (Bill, 2009).

### **Waste Recycling**

Waste Recycling is a process whereby recovered waste materials like paper, aluminum, animal by-products, plastics scrap metals etc, are converted to valuable materials (e.g. aluminum scrap and cans are transformed into frying pans and pots by artisanal recyclers) or as raw materials for utilization by the industrial sector. Recyclers form a component in the informal private sector comprising micro and small-scale recycling companies. The recycling sector is a multi-million-naira investment, where some specialized equipment and machines are used for the conversion of the recovered items to finished products or raw materials that are also used in several other applications (Adebola, 2006).

Waste recycling has a significant environmental benefit to the reduction of waste in landfills and the environments, hence a reduction of waste toxicity transferred to the soil and water bodies within and surrounding landfill areas. In general, there will always be some materials that cannot be recycled, simply because they have lost all usefulness. A well-articulated solid waste recycling system will have positive effect for a cleaner environment, good health of urban residents and create a more balanced allocation of resources (UNIDO, 2012).

## **THEORETICAL REVIEW**

Waste management is understood as supervised handling of waste materials from source through recovery processes to disposal (Chirico, 2007); and, it involves control of generation, storage, collection, transportation, processing and disposal of waste with the aim of protecting environmental quality, human health and preservation of natural resources (Lin, et-al, 2008 and Zhu, et-all, 2008). In addition, solid waste refers to non-liquid material that is no longer valuable to the owner as including rubbish, garbage, trash, or refuse (Zhu, et-all, 2008); examples include kitchen waste, paper products, rags, plastics, rubber, leather, bone, glass, crockery, pots, sweepings, metal and old furniture (Shakya, et-all, 2014) as generated by households, offices, hotels, shopping complexes/shops, markets, yards, schools, institutions and street cleaning (Borongan, et-al, 2010); categorized as household/domestic, commercial, institutional, industrial and agricultural waste (UNEP, 2011, and Magutu, 2011); and, excluding semisolid waste such as sludge and night-soil (liquid waste) and clinical waste produced by hospitals.

As argued by Al-Maaded (2012), waste management which is done along the lines of a systematic utilization of reducing, reusing and recycling depends on managerial procedures, practical choices and state-of-the-art strategies. Lenox and King (2004) found that effective reduction, reusing and recycling of waste are achieved with the support of relevant equipment and use of experienced personnel; the reverse is true, lack of equipment for waste crushing or refining processes derails the process (Field, et-all, 2007).

The new demand for sustainable waste management requires new paradigm (Gani, 2012); configured as '3Rs' or 'RRR' in which the first 'R' stands for Reduce, the next 'R' for Reuse and the other 'R' for Recycle (Moore, 2012, Al-Maaded, 2012). With regards to utilization, the '3Rs' could be used as policy tool and/or assessment/analytical tool. According to Al-Maaded (2012), the '3Rs' model provides the basis for a comprehensive management strategy of municipal solid waste; with the principal aim fashioned to address health, environmental, aesthetic, land-use, resource and economic concerns associated with improper disposal of waste (Henry, 2006, Nemerow, 2009, Wilson, 2007).

## **THE 3Rs MODEL**

As an elaboration, the '3Rs' model is considered as state-of-the-art philosophy of waste management (Zhu, et-al,2008). Cited in European Union (EU) 2001, that the 3-tier-R has been expanded into six hierarchical steps: Prevention, Reduction, Reuse, Recycle, Energy Recovery and Disposal. For the municipal waste managers, a comprehensive understanding of the '3Rs' model is critical (Napal, 2008). Used as conservation approach, the emphasis is laid on

reduction, reusing and recycling of bio-degradable and non-biodegradable waste (Ogunrinola, et-al, 2012) and, providing an environmentally friendly option to manage waste (Crown, 2012). Upon completion of the '3Rs' processes, the maximum benefit is minimization of waste volume (Magtutu, et-al 2011), decline in the reliance on landfills, decrease in the environmental costs associated with management, and improvement in serious public health concerns (Fobil, et-al, 2008, Owusu, et-al, 2012).

**The first R (Reduce)** involves prevention and reduction of waste. To reduce waste means to minimize amount of waste generated. Waste reduction could be achieved through legislation, product design, local programmes to keep recyclables and compostable from the waste (Crown, 2012), waste reduction stresses upon judicious use of resources in manufacturing. Legislation compels a manufacturer to maintain particular standards in designing products or limit production activity as happens in Europe and USA (Crown, 2012, Goldman et-al, 2001). Also, separation of waste at source achieves the same goal of waste reduction; intensified by public awareness and education.

**The second R (Reuse)** involves secondary and subsequent uses of waste materials either in part or whole. Reuse of waste is exemplified by trade in second-hand goods: cloths, electronics, automobiles, furniture and other merchandise (Man, 2012:2). 'Reuse' is achieved through sorting done at source rather than disposal site (Cadmus, 2009); and, through detailed processes of checking, cleaning, refurbishing, repairing whole items or spare parts (Fewtrell, 2012:2).

**The third R (Recycle)** depends on waste materials which cannot be reused directly but can be converted to new product or raw material through the processes of transformation (Crown, 2012). For instance, used paper is recycled into files, envelopes and cards (Napal, 2008). Energy is recovered through recycling through: pyrolysis (combustion of waste in the absence of oxygen to create gases, liquids and solid compounds), incineration (combustion in the presence of oxygen to produce oxidized compounds), anaerobic digestion, gasification and pelletization (Fewtrell, 2012, Zhu, et-al, 2008); as well as composting (biological and chemical degradation of organic waste in either large centralized, small enterprise, backyard or household basis) (Cadmus, 2009).

Together, the '3Rs' aimed at achieving sustainable waste management; and, also relates to other global environmental challenges, particularly, climate change mitigation, specifically, the emission of greenhouse gases that could create sustainable development co-benefits and reduction in the emissions of methane (CH<sub>4</sub>), biogenic carbon dioxide (CO<sub>2</sub>), non-methane volatile organic compounds (NMVOCs), nitrous oxide (N<sub>2</sub>O), nitrogen oxide (NO<sub>x</sub>) and carbon monoxide (CO) from landfills (Field, 2017, Pipatti, et-al, 2006).

## CONCEPTS OF WASTE MANAGEMENT

There are a number of concepts about waste management which vary in their usage between countries or regions. Some of the most general, widely-used concepts include:

- 1. Waste Hierarchy:** The waste hierarchy refers to the "3 Rs" reduce, reuse and recycle, which classify waste management strategies according to their desirability in terms of waste minimization. The waste hierarchy remains the cornerstone of most waste minimization strategies. The aim of the waste hierarchy is to extract the maximum

practical benefits from products and to generate the minimum amount of waste (Wikipedia 2008).

2. **Extended Producer Responsibility (EPR):** This is a strategy designed to promote the integration of environmental costs associated with products throughout their life cycles into the market price of the products (Organization for Economic Co-operation and Development 2001). Extended producer responsibility imposes accountability over the entire life cycle of products and packaging introduced on the market. This means that firms, which manufacture, import and/or sell products and packaging, are required to be financially or physically responsible for such products after their useful life. They must either take back spent products and manage them through reuse, recycling or in energy production, or delegate this responsibility to a third party, a so-called Producer Responsibility Organization (PRO), which is paid by the producer for spent-product management. In this way, EPR shifts responsibility for waste from government to private industry, obliging producers, importers and/or sellers to internalize waste management costs in their product prices (Hanisch, 2000).
3. **Polluter Pays Principle:** In environmental law, the polluter pays principle is the principle that the party responsible for producing pollution should also be responsible for paying for the damage done to the natural environment. With respect to waste management, this generally refers to the requirement for a waste generator to pay for appropriate disposal of the waste. Polluter pays is also known as extended polluter responsibility (EPR). This is a concept that was probably first described by the Swedish government in 1975. EPR seeks to shift the responsibility dealing with waste from governments (and thus, taxpayers and society at large) to the entities producing it. In effect, it internalizes the cost of waste disposal into the cost of the product, theoretically meaning that the producers will improve the waste profile of their products, thus decreasing waste and increasing possibilities for reuse and recycling (Wikipedia, 2008). Organization for Economic Cooperation and Development defines extended polluter responsibility as:

*“A concept where manufacturers and importers of products should bear a significant degree of responsibility for the environmental impacts of their products throughout the product life-cycle, including upstream impacts inherent in the selection of materials for the products, impacts from manufacturers’ production process itself, and downstream impacts from the use and disposal of the products. Producers accept their responsibility when designing their products to minimize life-cycle environmental impacts, and when accepting legal, physical or socio-economic responsibility for environmental impacts that cannot be eliminated by design (Organisation for Economic Co-operation and Development 2001)”*

4. **Zero Waste:** This is a philosophy that aims to guide people in the redesign of their resource use system with the aim of reducing waste to zero. Put simply, zero waste is an idea to extend the current ideas of recycling to form a circular system where as much waste as possible is reused, similar to the way it is in nature (Wikipedia, 2008). Zero waste requires that we maximize our existing recycling and reuse efforts, while ensuring that products are designed for the environment and having the potential to be repaired, reused, or recycled (What is Zero Waste? 2004). The zero-waste strategy is to



turn the outputs from every resource-use into the input for another use, or in other words outputs become inputs. An example of this might be the cycle of a glass milk bottle. The primary input (or resource) is silica-sand, which is formed into glass and formed into a bottle. The bottle is filled with milk and distributed to the consumer. At this point, normal waste methods would see the bottle disposed in a landfill or similar, but with a zero waste method the bottle can be saddled with a deposit, at the time of sale, which is redeemed to the bearer upon return. The bottle is then washed, refilled, and re-sold. The only material waste is the wash-water, and energy loss has been minimized.

## **EMPIRICAL REVIEW**

Weligamage (2009) who carried a research on enhancing graduate entrepreneurship skills, the study was conducted with the objectives of identifying the employer skills needs in different countries, the study is based on a literature survey of educational reports, empirical and theoretical research papers. His result revealed that skills definitions, employer expectation and requirement differ according to different countries. The result concluded that universities should identify skill sets that will best serve the future labor market and align programs to meet those needs.

Sulayman, et-al (2014) conducted a research on role of creativity education in promoting entrepreneurship in Nigeria. The study finds out that entrepreneurship is encouraged in Nigeria because it could lead to self-employment, help in reducing unemployment and contribute towards development of the country. This paper thus, sees creativity education as having the potentials for promoting and encouraging entrepreneurship in Nigeria because; it could equip its recipients with creative skills for identifying viable business opportunities, unambiguous expressions of talent, strategic thinking that can lead to resource utilization, waste recycling and conversion. The implication of this work is that, for Nigeria to encourage entrepreneurship, reduce unemployment and help the practicing entrepreneurs to be successful and achieve the aim of making their ventures to be going-concerns, creativity education should be taken serious and highly encouraged; otherwise, the desire of Nigeria to encourage self-employment through entrepreneurship may end up as a mirage.

Ibrahim et-al, (2013) investigates the effect of technology advancement on entrepreneurship education in Nigeria labour market. The analysis reveals, among other findings, that entrepreneurship education curriculum constants in Nigeria do not equip students with creative skills required for their employability in Nigeria labour market in the present advanced technology era. Based on their findings, they recommend that all the major skills in the modern technologies needed by the Nigeria labour market should be integrated into curriculum of entrepreneurship education programs in Nigeria universities.

Uddin, et-al, (2013) look into the causes, effects and solutions to youth unemployment problems in Nigeria. The findings revealed that unemployment in Nigeria among youths are caused by six major problems and six major effects which has created tension and hatred between the haves and have not, leading to communal clashes and the rise of such groups such as Boko Haram, Niger Delta Militant, armed robbery, prostitution and child trafficking constituting hiccups to security of lives and properties. Also, the findings revealed that unemployment in Nigeria increased from 21.1% in 2010 to 23.9% in 2011 with youth

unemployment at over 50%. From 2011 to 2013 there is an increase of 16% unemployment growth rate in Nigeria. Significantly, the impact of this paper is that government should create labour market that work better for the youths' employment and recommends that the government should invest heavily on entrepreneurship education to enable the youth become self-reliance instead of job seekers through skills development and training for waste utilization.

Agnes (2006) carried out a research on household participation in domestic waste disposal and recycling, the aim of this study was to investigate the factors influencing household awareness and participation in domestic waste disposal and recycling, focusing on creativity skill. His analysis shows that there is a low level of household awareness about the environmental implications of domestic waste management and hence low level of participation in domestic waste sorting, disposal and recycling. Among relevant factors are the level of creativity skill and income of the households.

Ebikapade, et-al (2015) analyzed public participation in sustainable waste management practice in Abuja, Nigeria, their effort is centred on public participation in sustainable waste management practice across the country. Nevertheless, in Abuja there seems to be low public participation in sustainable wastes and environmental management practice. The study discovered that, a significant number of people in Abuja believe that their waste has value, only a few people actually engage in waste separation and recycling. Some of the reasons for the low level of waste separation and recycling can be attributed to two main reasons; the lack of incentives for residents who engage in recycling activities and the lack of recycling programs and facilities by recycling companies and the government.

Afangideh, et-all (2012) who conducted research on attitude of urban dwellers to waste disposal and utilization in Nigeria. Their findings revealed that family size has a great influence on waste disposal and utilization. The results showed that environmental attitudes affected recycling and waste utilization behaviors negatively, significantly along with several demographic variables. However, their result indicate that effective environmental enlightenment would help avert the attitude of urban dwellers to waste disposal and utilization in Nigeria.

Adogu, et-all (2015) carried out a research on assessment of waste utilization among residents owerri municipal Imo State Nigeria. The results showed that 90% of respondents were aware of waste utilization while 97.5% had positive attitude towards it. The major types of waste generated from households were food residues. Also, poor waste management practices among residents include open dumping and burning. Gender and educational status of respondents significantly influenced their knowledge, attitude and practice of waste utilization. The residents of Owerri need entrepreneurship creativity education for proposal waste utilization.

## **SUMMARY AND CONCLUSION**

### **Summary of Findings**

Based on findings, it is quite reveling that creativity education have impact in waste conversion so much that some institutions have included it in their course of study which has enlighten

and expose student on how to utilize their skills and making use of their comparative advantage, that is, converting waste to wealth.

Waste recycling has a significant environmental benefit to the reduction of waste in landfills and the environments. Waste recycling influence creativity education in an organization therefore, has positive effect for a clean environment which leads to good health.

Creativity skill has influence on waste recycling through training, practice and experience. Creativity skill has helped to improve the level of waste recycling in an organization through the development of new skill which support the development of key job requirements of a competitive workforce – critical thinking, communication and a capacity to embrace new ideas.

Creativity skill has a positive influence on waste conversion through training, practice and experience put together as a quality of performance and it also leads to powerful ideas generation.

### **Conclusion**

The project was designed to determine the “effect of entrepreneurial on waste utilization”. Four hypotheses were formulated to guide the research in achieving the objectives of the study. All hypothesis was confirmed at the 0.001 significant levels as follow:

- Creativity education has significant effect on waste conversion.
- Waste recycling influence creativity education.
- Creativity skill have influence on waste conversion.
- Creativity skill has significant relationship with waste recycling.

The research was therefore compelled to conclude that entrepreneurial creativity indeed enhances waste recycling.

### **RECOMMENDATIONS**

1. Entrepreneurship is the way forward. Entrepreneurship creativity provides solution to many entrepreneurs and organization to utilize the wasteful resources in a more productive way.
2. Entrepreneurship creativity has become a key facilitating approach in waste utilization into a reasonable output for growth and development in order to increase employment opportunity.
3. Organization must know that decision make on particular resources may not be useful but such resources should not be discarded but could be useful in other areas of operation or activity.
4. Skill development plays significant role in economy development at any nation particularly Nigeria. Skill development can also help to solve many local problems.

5. People must develop ideas and take personal responsibility and initiative to start a business.
6. Value can be generated through creation expansion of economic activities, by identifying and exploring new product, process or markets.
7. Entrepreneurship must involve introduction of new product, service and market as well as new organization.
8. Individual who wishes to start or expand a business must also focus on developing the enterprise, whether or not, it employs or its led by individuals who can be considered entrepreneurial.
9. This research work makes use of some of the method provided from the literatures that was deduced from past researchers in other to ensure the validity and reliability and do away with the rest of the methods.

## **SUGGESTION FOR FURTHER STUDIES**

The field of entrepreneurship creativity and waste utilization are not static but dynamic and changing over time. The recent research in present entrepreneurship creativity may surpass previous knowledge, understandings and provides insight into the impact of future resources both tangible and intangible resources and their combinations within internal and external environment of the new enterprises.

Entrepreneurship creativity and waste utilization and creative problem formulation are development in terms of the application of advance technology to existing practice and the development technologies and new creative problem formulation, problem solving processes. This field of study has much to contribute to further research in targeting the development of the dynamic capability and entrepreneurial abilities of the individual and organization and the input and effect of entrepreneurship creativity and creative thinking processes at various levels of enterprise development.

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