International Journal of Multidisciplinary Research and Development
www.allsubjectjournal.com
ISSN Online: 2349-4182
Received: 27-11-2025, Accepted: 26-01-2026, Published: 10-02-2026
Volume 13, Issue 1, 2026, Page No. 303-308

Application of sustainability marketing ideals to solid waste management & disposal techniques of developing cities

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Abstract
Solid waste treatment and disposal management has been a challenge to most developing cities owing to the large volume of wastes generated in such cities as a result of population growth and infrastructural inadequacies. This study explored how this challenge can be transformed to opportunities toward achieving social, economic and environmental sustainability. The research adopted observation and survey methods as the technique for data collection, several dumpsters and landfill sites where wastes are finally disposed were visited. The finding revealed that a common practice existed among the landfill sites visited; wastes were disposed unscientifically posing threat to health, social, economic and environmental well-being of the inhabitants living close to the landfill sites. The study concluded that waste generation is a potential which developing cites have which can be harnessed to a profitable venture and means of creating jobs. The researcher recommended that government should provide enabling environment for investors to invest in transforming waste to wealth through recycling and conversion by granting import duty reduction for machines and or tax exclusion for the first few years.

Keywords: Sustainability marketing, solid waste. disposal techniques, land fills

Introduction

The concentration of economic activities in the few urbanized cities of developing countries have resulted to the increasing concentration of inhabitants in such cites. Such concentration of inhabitants puts pressure on the few available infrastructures resulting to health, social and environmental challenges. These challenges are mostly pronounced in the areas of waste disposal and management. Solid waste disposal and management in developing countries has been an issue of concern as it is common to sight mountainous waste substances in an open landfill (Goorah 2009) [9]. In most developing cites an overfull dumpster, a garbage blocked drainage, broken sewage lines and open incineration of synthetic materials are common sights (Nwankwo, 2018) [15]. The deplorable condition of waste disposal and management among other things is as a result of improper mastering of techniques of disposing and managing mountainous solid wastes being generated in such cities (Alabaster, 1995, KafandoSegda, Nzihon and Koulidiati 2013) [2, 12]. These waste sites have become a rallying point for rudents and scavengers (Nkamnebe, 2013). In different cities, government agencies are saddled with the responsibility of managing wastes generated within the municipalities. These agencies and their facilities have been stretched beyond their elastic limits as the volumes of wastes have gone beyond their estimated capacities. The World Bank report gave the 2016 volume of solidwaste from world cities as 2.01 billion tons amounting to a footprint of 0.74kg per person per day. This volume is expected to increase by about 70 percent to 3.40 billion tons by 2050 as a result of urbanization and population growth (Worldbank, 2019). Analysis of solid waste generation revealed a correlation between solid waste generation and income level. Developing cities generate about 66 percent of the total solid waste with about 33 percent not managed in an environmentally safe manner. This accounts for the prevalence of poor health, social and environmental conditions of developing cities and gave credence to assessing the possibilities of infusing sustainable marketing ideals to solid waste disposal and management in developing cities.

Statement of the Problem

The management of Solid waste has poised a great challenge to administrators of developing cities. Poor knowledge of handling Municipal Solid Waste (MSW) (Kafando *et al* 2013) [12]; coupled with insufficient facilities and poor funding have led to high spread of communicable diseases (Visanathan and Trankler, 2003), through the contamination of water sources, air and land spaces (Oko and Osuagwu, 2013) [16].
The main source of drinking water for most developing cities are rainwater, underground and surface water. MSW when not properly handled can contaminate these water sources and thus becomes a source of disseminating diseases (Moguluwa *et al*, 2018) [13]. Unhealthy odour oozing from open dumpsters can contaminate the air around the vicinity thus exposing inhabitants to air borne and respiratory infectious diseases.

Objective of the study

The objective of this study is to assess the different techniques developing cities adopt in handling MSW. Specifically the study assessed the technique mostly used in developing cities and the possibility of transforming the situation to a sustainable business opportunity.

Sustainability Conceptualized

The idea of sustainability was first introduced with the publish of "Our common future" a report by the World Commission on Environment and Development (The Brundtland commission) which defined sustainability as "development that meet the needs of the present generation without compromising the ability of the future generations

to meet their own needs" (WCED, 1987). Previously, the 1972, report of the Club of Rome "The limits to growth" and the United Nations Conference on Human Environment tagged "Earth Summit I" hosted in Stockholm has lamented on issues bothering on environmental sustainability such as ecology, the earth economy and development of North and South hemispheres. The Earth Summit I was the first to discuss the fundamental challenge of sustainable development (Meakin, 1992). The Brundtland commission definition gave rise to multiple interpretations: Practice that secure human needs and at the same time considers ethical and environmental resources (Argyis&Tsaliki, 2005), giving due consideration to the needs of unborn generation (Nkamnebe, 2013), maximizing the well-beng of all within the level the environmental resources can sustain (Hurch, Peck, Jackman&Wensing, n.d); business solving most challenging problems of the world today: from climate change and biodiversity to addressing working conditions and health amongst the world poorest nations (Christophe, 2015), long-term maintenance of systems according to environmental, economic and social conditions (Crane and Mattern, 2004; Garcia-Rosell and Moisander, 2008) [8] consistency in meeting the needs of the present generation while preserving or protecting the environment for future generations (Nwankwo, 2018) [15].

From the foregoing sustainability highlights the need for intergenerational equity in resource use (Nkamnebe, 2013) and encourages an all-inclusive approach to decision making (WBCSD, 2004). It encourages the drift from use of virgin resources to re-cycling and re-use of materials and eventual elimination of pollutants and toxic wastes (Charter, Peattie, Othman and Polonsky, 2012).

Marketing is a social science that seeks to identify and satisfy individual and organizational needs in a consistent and mutually beneficial manner (Agbonifoh, Ogwo, Nnolim&Nkamnebe, 2007). Meeting the needs of the teaming world population can lead to over use of the scarce virgin resources. Modern marketing practice determines and regulates the types of resources organizations exploit for what and for whom (Hurth *et al* n.d p.5). There are many products and services that can meet basic needs of man and still promote the balance of the ecosystem. Though, many products and services currently in the market especially in developing cities do not possess these qualities. Marketing therefore is the driver at the centre of solving the problem of maximizing the well-being with appropriate resources. To achieve this standard best marketing practices have to be imbibed, this involves the inclusion of sustainability in all marketing practices. Sustainable marketing is a responsible and holistic management process that identifies, anticipates and satisfies stakeholder requirements for a reasonable reward that does not adversely affect human and natural environmental well-being (Arnould and Press n.d). Sustainable marketing focuses on economic and social issues and emphasis reducing environmental damages.

Solid waste, Treatment and Disposal Techniques

Solid wastes are discarded substance in solid state from residential commercial, private, public, administrative and recreational premises. It include residues form production or processing concerns and abandoned personal or public properties (Nwankwo, 2018) [15]. Solid waste disposal and management are set of rules and provisions for collection, transportation, treatment and disposal of waste in the most social, economic and environmentally sound manner (Kafando *et al* 2013) [12]. Solid waste disposal and management has presented serious challenge among developing nations in the sub-Saharan Africa. This is among other things as a result of high population growth and lower income level of inhabitants of these cities. Several waste treatment options exist, these strategies aim at reducing the volume of waste that need to be land filled, as well as recovering and utilizing some valuables present in the discarded materials as a resource to the largest possible extent (Alam and Ahmade, 2013).

These options which are dependent on the nature of waste include:

- **Incineration:** A controlled combustion of waste in the presence of excess air (oxygen) at high temperature of about 100ºC to produce gas and non-combustible residue materials.

- **Compaction:** Compressing or compacting large volume of garbage to small volume with the help of a compacting machine.

- **Pyrolysis:** Thermal degradation of waste in the absence of air (oxygen) to produce combustible residue e.g the conversion of wood to charcoal. Energy produced from pyrolysis is renewable energy and can be useful for domestic and industrial uses.

- **Gasification:** Partial combustion of solid wastes in the presence of oxygen, but in lesser amount than that is required for complete combustion to generate a combustible gas (fuel gas) rich in carbon monoxide and hydrogen.

- **Composting:** is the most practical method of rejuvenating the soil for most developing nations especially where the climate is arid and the soil need organic supplements (U.S.EPA, 2009).

Also several method of waste disposal exists and they include; Landfill: Landfill is the most common and economic method of handling decomposable waste that enables waste to decompose naturally in disposal sites. Unscientific landfill is a common practice in most developing cites (Goorah, Esmyot and Boojhawon, 2009) [9].

- Sanitary landfill is a scientific method of dumping decomposable solid wastes in landfill sites. It involves spreading the wastes in layers and compacting to the smallest volume and covering with soil on daily basis (Goorah *et al*, 2009) [9].
- Waste pile is the accumulation of insoluble wastes such as metal scraps and plastics. The piles serve as temporary disposal points before conversion or recycling (Alam&Ahmade, 2013).
- Underneath injection wells a system of injecting decomposable waste with pressure into a steel or concrete encased wells (Alam&Ahamde, 2013).
- Land treatment is a system where by decomposable solid wastes are used as manure to treat lands that were hitherto in need of nutrients (Alam & Ahamde, 2013).

Implication of improper solid waste disposal technique

Knowledge deficiency on ways and manners of disposing waste is most prevalent in developing cites. This made the

open landfill system the only formal way for discarding wastes. Improper disposal of waste apart from being an eye sore, loss of resources and releasing of toxins can create environmental and health problems and economic concern (Moguluwa, Nwankwo, Anyasor and Agina, 2018) [13, 15]. Landfills contribute to global warming when wastes decompose anaerobically and produce methane: a greenhouse gas far more potent than carbon dioxide that can itself be a danger to nearby inhabitants (Bobinson, Kerr, Finely, Lightfoot and Rucie-Riker, 2012: Alan and Ahmade, 2013) [3]. From the economic perspective, dumping waste in landfills to decompose prevent resources from being reused (recycled), this is particularly true of plastics, metals and papers resulting to heavier reliance on virgin materials at a higher energy cost (Moguluwa *et al*, 2018) [13]. This knowledge gap (inability to re-cycle waste or put them to another use) has put pressure on the economy of household to provide for new materials that would have hitherto be reused thus contributing to un-sustainability. Also the piece of land where the waste is dumped losses its economic value as it cannot momently be put to any economic use.

From the social perspective an overfull dumpster or a visit to a landfill site aside from the bad odour is an eye sore. In most developing cites it is common to see heaps of garbage blocking the road, the drainage or littering the lane (Oko and Osuagwu, 2013) [16], distorting the aesthetics of the neightbourhood. From the environmental perspective, waste dumped in open landfills can contaminate the soil and the waters (surface and ground). A visit to open landfill sites revealed that wastes were not properly sorted out before dumping them in landfills, certain waste materials require special disposal techniques. These materials (inorganic) have the potential of leaching massive chemical components (heavy metals) which contaminate the soil, surface and ground, water(Alam and Ahamade,2013); and infiltrate the food chain with massive consequences on the ecosystem. Solid waste can cause erosion or flooding when it blocks water ways. When wastes decompose in open landfills, aside from the bad odour from the landfills and dumpsters, of greater concern is the volume of gas (methane) released by decomposing garbage. Methane is a greenhouse gas and constitute 40-50 percent of the biogas within the landfill (Alabaster, 1995, Alam & Ahamde, 2013, Kafando *et al*, 2013) [2, 12] and has negative effect on the ozone layer.

Clean water is essential in promoting a healthy living, but in a situation where the source of water is contaminated it becomes a medium for spreading diseases and cause of death (Nwankwo, 2018) [15]. In most developing cites, rain, surface and ground water are the sources of water for domestic uses. Open dumping of waste in landfills as most evident in developing cites can contaminate these sources. Waste form landfill can enter water channels, chemicals from decomposing waste can infiltrate ground water while the biogases (chemical substances) released into the atmosphere during open incineration which often occur contaminate the rain water(Oko and Osuagwu,2013; Alan and Ahamade,2013) [3, 16]. These chemical substances aside from polluting rain water can cause Respiratory Tract Infection (RTI) to inhabitants within the area. Open landfills and dumpsters are good habitat for flies, rodents and other disease vectors.

Sustainable Opportunities for Development

Though waste disposal and management has poised great challenge to developing cites, the generation of large volume of waste which has been associated to under development (world bank, 2019) can be a resource if well managed to evict inhabitants of developing cities from poverty and joblessness. Currently, in most developingcountries micro, small, medium and even big enterprises are transforming mountainous metal scraps, plastics and aluminum tins-and scraps that hitherto constitute serious environmental hazard to viable business and some that follow sustainability best practices are contracted by bigger global firms (Nkamnebe, 2013). A visit to the landfill sites revealed that presently a good number of persons (scavengers) make their livelihood form the scraps they collect form the waste heaps which are sold for re-use or recycling. Presently in Nigeria cities, the market for scrap materials (materials, plastics and bottles) are on the increase.

Meeting the energy need of the teaming world population has been a big challenge. Developing cities are characterized by epileptic electricity supply and heavy reliance on alternative sources with high environmental implications. Non- recyclable waste materials that are issue of concern in developing cities can be used to address the energy issue through energy recovery. Energy recovery from waste is the conversion of non-recyclable waste materials into useable heat, electricity or fuel through a variety of processes including combustion, gasification, pyrolization, anaerobic digestion and landfill gas recovery. Energy recovery form waste is a non-hazardous waste management technique, conversion of non-recyclable waste materials into electricity or heat is a renewable source of energy. This supports the study of Alabaster (1995) [2] that pyrolysis can be adopted to produce energy from solid wastes.

The issue of promoting agricultural production toward achieving food sufficiency can be given a boost through efficient management of waste. Achieving sufficiency in food production is one of the Millennium Development Goals. Currently countries in sub-Saharan Africa and beyond spend millions of dollars annually in importation to meet their food need and to subsidize fertilizer supply. The large volume of solid wastes generated within these cities is a resource which can be converted to fertilizer to boost agricultural production. If this is done, the resources being spent annually on importation of food and fertilizer can then be channeled to provide other amenities. Evidently, proper waste management can create jobs to engage the teaming unemployed labour, boost the provision of social amenities, promote healthy environment and boost economic sustainability.

Related Theories

This study was supported by the Natural Capitalism theory but was anchored on the Waste Management Theory. The Natural Capitalism Theory was designed by the Centre for Sustainable Development Initiatives (SDIS) and Land Administration of the University of Melbourne, Austria. The theory was designed to correct the long term neglect of natural capital and its sustainability. The theory argued that na²tural capital can be sustained if four fundamental steps are taken. These include: Radical Resource Productivity (RRP), focused at maintaining natural sustainability through the utilization of methods such as reducing pollution that underpin the economy and slowing depletions. Bio mimicry involves the constant re-use of materials, in close cycles and elimination of toxicity. It encourages and emphasis the

mimicking of nature in our processes and systems and the use of natural based methods in meeting our needs. Bio mimicry supports recycling of resources and use of green and renewable materials rather than dependence on scarce finite natural resources. Investing in natural capita emphasizes on creating and maintaining natural sustainability through restoration and expansion of stocks of natural capital in the society. Services and flow economy emphasize the shift of consumption form one-off encounter to leasing to foster life cycle approach. It encourages "lease of service" where the firm reclaims or buys back their product at the end of the lease and recycle or reproduce it rather than outright sale. The radical resources productivity (RRP) and bio mimicry supported this study as they focused on reducing pollution, re-use of material, recycling and renewable materials which aligned with sustainability ideals.

The waste management theory was developed by Pop, Cojocaru and Brisan (Pop *et al*, 2013). The theory was a unified body of knowledge about waste and waste management. It is founded on the expectation that waste management is meant to prevent waste from causing harm to human health and the environment. The theory took its base from industrial ecology, which focuses much on manufacturing and the design of process and product of firms from the standpoint of product competitiveness and interaction with the environment. But this theory is also adaptable to incorporate waste minimization and/or resources use optimization goals and values. The application of sustainability marketing ideals to solid waste disposal and management is deeply anchored on the waste management theory as it is aimed at achieving optimal use of materials through re-use, recycling and conversion.

Materials and Methods

Observation and survey techniques were adopted in executing this study. Several landfills where solid wastes are finally disposed were visited. Observational checklist includes method of preparation, treatment and disposal of waste. The researcher through his agents spent 8 weeks to observe whether wastes are sorted accordingly, the method of treatment, whether wastes are recycled, converted to other uses or re-used and finally the method (s) of disposal. Frequency of observed behaviour was adopted in analyzing the data. For survey technique; staff of Ministry of Environment, Enugu State waste Management Authority (ESWAMA) and National Environmental Standards & Regulation Enforcement Agency (NESREA) were surveyed. A total of 258 formed the population of the three establishments. The senior staff strength was 118 which formed the sample. 52 questionnaires were duly filled and returned, representing 44% returned rate. Convenience techniques were used to select the three agencies while judgmental technique was used to select senor staff from the agencies. A likert 5 point scale was used to feret information. The questionnaire was arranged in three groups of social economic and environmental sustainability. The instrument were validated with face and content validity while a test-re-test method was used to check for reliability. Crombach's Alpha techniques was used to test for reliability and a score of 0.846 was obtained.

Table 1: Waste Disposal and Economic Stability

	Response categories						
	Strongly Disagree & Disagreed		**Undecided**		**Agreed & Strongly Agreed**		**Mean**
	%	Freg.	%	Freq.	%	Freq.	
Same waste reminarats are still useful and can be re-used or recycled.	3.85	2	9.62	5	86.54	45	4.2404
Scavenging is a useful practice that helps to swage useful reminants from waste	13.46	7	5.77	3	80.77	42	4.0096
Scavenging helps to preserve scarce finite virgin materials of used products to other uses	5.77	3	3.85	2	90.38	47	4.2692
Scavenging is a fast growing business contributing to economic sustainability of formities & firms	19.23	10	7.69	4	73.08	38	3.8077

Source: Field Study, 2025

The table above presents the responses of the respondents on waste disposal and economic sustainability. The table has four questions. Question 1 sought to find out if some waste reminants can still be useful the responses had a mean of 4.2404. question two of this table tries to find out whether scavenging is a useful practice, a mean of 4.0096 was recorded on if scavenging helps to preserve scarce finite raw materials the mean response also was 4.2692, lastly on whether scavenging is a fast growing business and contributing to economic stability, a mean of 3.8077 was recorded.

Table 2: Waste Disposal and Social Sustainability

	Response categories						
	Strongly Disagree & Disagreed		**Undecided**		**Agreed & Strongly Agreed**		**Mean**
	%	Freg.	%	Freq.	%	Freq.	
Waste disposal if properly managed can help to improve health quality of the society	11.54	6	9.62	5	78.85	41	4.0096
Waste can be used to improve the energy status by using pyroloysis to generate thermal energy	9.62	5	19.23	10	71.15	37	3.9230
Waste can be composted or turned to fertilizer to improve agriculture and food security	19.23	10	5.77	3	75.00	39	3.8365
Proper waste disposal and management improves the aesthetics of the environment	17.31	9	9.62	5	73.08	38	3.8365

Source: Field Study, 2025

This table examines the views of respondents on waste disposal and social sustainability. On whether proper waste disposal can improve health quality of the society a mean score of 4.0096 was obtained. Whether waste can be used to improve energy by generating thermal energy from waste a mean score of 3.9230 was obtained. On the possibility of changing wastes to manure via composting a mean score of 3.8365 was obtained. Finally on the ability of proper waste disposal and management to improve the aesthetics of the environment a mean of 3.8365 was obtained.

Table 3: Waste Disposal and Environmental Sustainability

	Response categories						
	Strongly Disagree & Disagreed		Undecided		Agreed & Strongly Agreed		Mean
	%	Freg.	%	Freq.	%	Freq.	
Proper waste disposal & management techniques helps to control communicable diseases	19.23	10	5.77	3	75.00	39	3.8365
Proper waste disposal and management can minimize the release of methane chemical substance that depletes the ozone layer	13.46	7	19.23	10	67.31	35	3.8077
Proper waste disposal and management improves the health standard of inhabitants	11.54	6	7.69	4	80.77	42	4.0385

Source: Field Study, 2025

Table 3 explorers the ability of proper waste disposal and management to improve environmental sustainability. Question 1 seeks to find out if proper waste disposal and management can help in controlling communicable diseases, on this a mean score of 3.8365 was obtained. The ability of proper waste management minimizing the release of methane (a chemical gas that depletes the ozone layer and course climate change). a mean of 3.8077 was obtained. Finally the ability of proper waste disposal and management improving health standard of the inhabitants recorded a mean of 4.0385

Findings

The study revealed that open landfill system is predominantly the technique for solid waste disposal in developing cities. Solid wastes are dumped in an open piece of land and allowed to decompose anaerobically. The finding agrees with the report of Goorah *et al* (2009) [9] that open landfill is a common practice in most developing cities. The study also revealed that there are no clear means of sorting the waste according to whether they are decomposable or synthetic/metal scraps. This practice accounted for the volume of scavengers found in the landfill sites. The scavengers scout for valuables in the dump which can be re-used or sold for re-cycling or conversion. This supported the sustainability report by Nkamnebe (2013) who asserted that "in most developing countries micro, medium and even big enterprises are transforming mountainous metal scraps, plastics and aluminum tins and scraps that hitherto constituted serious environmental hazard to viable business….." Also it was observed that the means of treatment given to the waste is compaction. This process is conspicuous in the fed at the back end of many garbage collection vehicles, refuse are deposited at the bottom of slope for best compaction and control of blowing litter. Another means is open incineration which often especially during dry season is a means of reducing the volume of garbage.

Findings from the data collected from respondents revealed that proper waste disposal and management has the ability to improve the economic status of the inhabitants as many people make their livelihood by scavaging for useful items in the waste dumps. Also scavanging help to recycle useful items and preserve scare virgin materials. Also proper waste disposal and management can improve social sustainability by improving healthy environment, can be used to generate energy (thermal) and can be used to improve agriculture by turning waste to fertilizer (manure). Lastly proper waste disposal & management can help in controlling communicable diseases, reduce the release of poisonous gases into the atmosphere and improve the aesthetics of the environment.

Conclusion

The volume of waste generated by developing cities according to the Worldbank report (2019) is almost twice that generated by developed cities. This study has shown that solid waste is a resource which can be converted to useful ventures like recycling,re-use,conversion to other uses such as for agricultural improvement and generation of energy. The volume of waste generated in developing cities if properly harnessed can create an avenue for exiting developing cities from poverty, create wealth, improve their agricultural output, sanitize the environment and contribute to Gross Domestic Product (GDP).

Recommendation

In line with modern practices and sustainability ideals the following recommendations were advanced; government of developing cities (Federal, State or local) should as a matter of importance invest in waste treatment, conversion and re-cycling, plants, such plants can use the wastes as input for energy generation, conversion to useful materials (e.g fertilizer) or recycling. Where the government lacks the zeal to invest in such business, it should support private investors with import duty reduction and or tax exclusion for 5 years for such enterprise to set up her plant. Manufacturing, marketing and packaging firms should inculcate the practice of recycling their packaging materials. If sustainable marketing ideals are inculcated to waste management in developing cities, their inhabitants will become healthier, wealthier and the environment more habitable.

References

1. Aagbonifoh BA, Ogwo EO, Nnolim DO, Nkamnebe AD. Marketing in Nigeria concepts, principles and decisions (2nd Ed) Abia, Nigeria: Afritowers, 2007.
2. Alabaster. Waste minimization strategies for developing countries. SIEP/UNCHS, Littingen Worksh

op.UMP/SDC collaborative Program on Municipal solid waste in low income countries, 1995.
3. Alan P, Ahmade K. Impact of solid waste on health and the environment. International Journal of Sustainable Development and Green Economics (IJSDGE), ISSN No. 2315-4721, 2013, 2(1).
4. Argyris A, Tsaliki PV. Is sustainable development feasible? In Zimou, P.L and Zotos, Y. (Eds). Conference on Marketing and Development (ICMD), Aristotle University of Thessaloniki, Greece, 2005.
5. Arnould E, Press M, (n.d). Marketing organizations and sustainable marketing, Forthcoming George Basile, James Hersghauer and Sctt G. McNall (eds). Sustainable Business Practice: Challenges, Opportunitie s and Practices: Preger Press.
6. Charter M, Peauttie K, Othman J, Polonsky MJ. Marketing and sustainability. Centre for Business, Relationship, Accountability, Sustainability and Society (BRASS). In Association with the centre for sustainability Design, 2002. www.cfsd.org.uk/smart-knownet.
7. Christopher S. Ethical production.Retrieved 10th January, 2015. from www.coleacp.org/pip.
8. Crane a, Matten D. Business ethics: A European perspective. Oxford university press, 2004.
9. Goorah S, Esmyot M, Boojhawon R. The health impact of nonhazardous solid waste disposal in a community the case of the Mare Chiscose landfill in Mauritius. Journal of Environment Health,2009:72(1):48-54.
10. Gracia-Rosell JC, Moisander J. Ethical dimensions of sustainable marketing: A consumer policy perspective. European Advances in Consumer Research,2008:8:210-215.
11. Hurth V, Peck J, Jackman D, Wensing E. (nd). Reforming marketing for sustainability: towards a framework for evolved marketing. Friends of the Earth Institute for Sustainability Solution research.
12. Kafando P, Degda BG, Nzihou JF, Koulidiati J. Environmental impacts of waste management deficiencies and health issues. A case study in the city of Kaya, Burina Faso. Journal of environmental Protection,2013:4:1080 - 1087http://dx.doi.org/10.4236jep2013.40124.(onlinehtt p://www.scrip.org/jo urnal/ept)
13. Moguluwa SC, Nwankwo LN, Anyasor OM, Agina EK. Consumerism Business practices and Government regulations: A study of consumers in Enugu State, Nigeria. International Journal of Multidisciplinary Research and Development, 2018, 5(2).
14. Nkamnebe AD. Sustainability marketing orientation and developing countries: Agenda for Practice and Research. National Institute of Marketing of Nigeria (NIMN) Marketing Journal,2003:1(2):1-14.
15. Nwankwo NL. Achieving Sustainable Marketing in the South-East Nigeria's Food and Drinks Industry through Ethical Production and Consumption. A Ph.D Dissertation presented to the Department of Marketing, Faculty of Business Administration, University of Nigeria, Enugu Campus, 2018.
16. Oko AEN, Osuagwu L. Consumerism the Nigerian experience: Study of the food and drink industries 1980-2012. Business and Management Horizons, 2013, 1(2).
17. US. Environment Protection Agency. Proposed Revision to Definition of solid waste – frequent Questions. Retrieved July 17th2009 from, 2009. http://www. epa. gov/osw/nonhaz/municipal/index. htm
18. WBCSD. Marketing briefing driving success: Marketing and sustainable development. Cambridge, 2014. www.cisc.can.ac.uk/media/files..../marketing brie fing. Pdf. Retrieved 1stNov
19. World Commission on Environment and Development. Our common future. The Brundtland Report. NewYork Oxford University Press, 1987.