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Money from Waste: Is it some kind of joke

Ashish Singh

Professor, MBA Agribusiness, Rajiv Gandhi South Campus, Banaras Hindu University, Mirzapur
Ph. No: +91 7459962004
Email: ashish-singh@fmsbhu.ac.in

ABSTRACT

In normal situation, anything which is of no use is a waste. It occurs in every home, organization at any place where human lives. The normal procedure is to throw the waste as soon as it is produced, or to recycle it to less dangerous form and then dispose it. Thus, it can be called as output which has got no revenue.

But now, as new trends of entrepreneurship is emerging every day, the concept of waste entrepreneurship has also emerged. This firms convert the waste material into some useful product or services and earn lots of money from them. This is new form of entrepreneurship that was not existing before.

So, this article focuses on this new concept of entrepreneurship and tries to uncover the pros and cons of this concept. It also takes many examples further clarify this concept.

Introduction

In normal situations, we produce lots of waste every day, be it at home or the organization where we are working. As per the trend, that is followed from way backwards, this waste is thrown outside without generating any sort of revenue. In some cases, this waste is disposed of to scarp dealers, which gives very less cost thus resulting in overall loss if it is compared with its initial cost. So, in broad sense, the waste which is produced anywhere generates no revenue or minimal revenue for that person.

But now, the situation is changing, Now, the waste is not entirely "waste". There are new firms, that collects this waste and converts it into something useful. These new firms can be called up as "Waste Management startups" or "Waste Conversion startups". The main advantage of these firms is that they never face any scarcity of raw material, which in this case is obviously waste. As long as human beings survive, there will be ample quantity of waste, which will never go less.

What is Waste Management enterprises?

These enterprises or startups address waste disposal or recycling and, in the end, they cause sustainability feature i.e. they produce output which is conducive for the environment. Thus, is main work of these enterprises is to reduce waste generation, or to collect waste and recycling it and in the end, they generate lots of revenue for the owners.

The target area for these enterprises can be:

1. Recycling Firms: These firms focus on creating efficient and effective recycling solutions, which is entirely different from the one which is practiced in the organization. Examples can be automated waste sorting, without using manual labor, converting waste into reusable materials that generates revenue for the firms, developing new recycling methods for various waste through research and development etc.
2. Waste-to-Energy firms: These firms specialize in converting waste into energy like biofuels, electricity, heat etc. They use various techniques like incineration, anaerobic digestion, and gasification to convert waste to energy, and in the end, they reduce the waste in the landfills and generate revenue for the firm.
3. Composting Solutions firms: These firms focus on organic waste like the one produced in the home kitchen and converts biodegradable materials into organic compost or bioenergy. These firms offer easy home or industrial composting solutions, which is normally quite cheap for the clients and also generates revenue for the firms that offers the solution.
4. Circular Economy Firms: These firms focuses on facilitating the exchange of used products, excess materials, or by-products and provides new things at some low cost. These firms promote reusing, repurposing, and recycling items, and in the end, they help to reduce waste leading to sustainable growth.
5. Plastic Waste Reduction firms: These firms focuses on developing alternatives to plastics, such as biodegradable or compostable materials, and create sustainable systems to reduce plastic waste at the source end itself.

6. Waste Collection and Logistics firms: These firms focuses on optimizing waste collection processes and in the end, they make waste disposal system more efficient. Example can be products like smart bins etc.
7. E-Waste Firms: These firms focus on properly disposing and recycling electronic waste, which contains valuable metals and hazardous substances that require specialized handling. They develop techniques through proper research and development, that is specialized in disposing of E waste. Some examples are mobile phone companies, electronics products companies etc.

Some examples of Waste Management Startups

Since waste management is a new term, therefore there are very few companies, which are very difficult to find. Some of them are given below:

1. TerraCycle: This startup focuses and specialized in recycling very hard to recycle materials. It offers a wide range range of zero-waste solutions for its consumers.
2. Bio-bean: This startup focuses on recycling coffee waste, which would otherwise have been thrown away into sustainable products like biofuels, natural materials etc.
3. Rubicon Global: This startup uses technology and data analytics to search for and providing waste management and recycling solutions to businesses in micro and cities in macro.
4. Recycling Technologies: This startup develops chemical recycling solutions for plastics and converting waste plastic into oils and other reusable materials. Otherwise, plastic is very dangerous waste material because it never degrades and remains in soil indefinitely. One harm is of livestock which eats this plastic and sometimes, it prove to be fatal.
5. Nearby Mirzapur, there is organic farm, owned by Jalan Group, which is promoting the concept of organic farming. The author visits them regularly due to industrial trip programme for MBA Agribusiness students. In this process, they produce lot of waste like kitchen waste including vegetable waste, fallen leaves of organically grown trees, dung which is procured from the cow shed etc. Instead of throwing these waste products, Jalan Group is recycling them to produce vermicompost. This is again used in there organic plants and this cycle goes on again and again.
6. This vermicompost production is a good examples for the people who visit Jalan Farm because it requires very less investment, and the output is sustainably very nice and superior.
7. Another example is of Scrapshala, in Ravindurpri, Lanka, Varanasi where they convert all the waste things into useful product. The author has visited their small plant and he was amazed to look at those useful things which was produced using waste. One example is pen stand that is produced from broken chain of bicycles.
8. If it is not there, all the waste would be thrown outside, of which many waste and non degradable and will harm environment.
   Saahas Zero Waste: This startup focuses on waste management and resource recovery. It offers wide range of waste management services resulting in providing solutions for segregation, collection, and processing of wet as well as dry waste.
9. Sampurn(e)arth: This startup focuses on solid waste management, recycling, and composting. Sampurn(e)arth specialize in providing decentralized waste management solutions, focuses on recycling, biogas production, and composting. They focus on empowering waste pickers and other informal sector workers, because they believe that tacking the problem at ground level is best.
10. Greenobin: This startup focuses paper waste recycling thorough collecting and recycling paper waste, particularly from homes, offices, educational institute etc. They provide a comprehensive paper recycling service that ensures waste paper is efficiently processed and reused to various other products.
11. EcoEclectic Technologies: This startup focuses on recycling and upcycling through converting non-recyclable waste materials into new products through upcycling. They produce various other products like furniture, tiles etc. This is quite similar to Scarpshala discussed before.
12. Pom Pom: This startup focuses on doorstep waste collection and recycling. It offers waste management services to households by collecting dry waste at their doorstep and thereby ensuring it is recycled properly. They focus on providing incentives for people to segregate and recycle their waste, because it is natural tendency of public not to segregate the waste.
13. Carbon Masters: This startup focuses on waste-to-energy solutions by converting organic waste into biogas and organic fertilizer. One unique product by them is Carbonlites, a renewable fuel made from organic waste, that can replace LPG.
14. Namo E-waste: This startup focuses on E-waste management and recycling. They provide eco-friendly e-waste recycling solutions, which ensures that discarded electronics are not thrown away but are recycled in a safe and sustainable manner.
15. Waste Ventures India: This startup focuses on sustainable waste collection and recycling. It works with waste pickers and other informal sector workers to divert waste from landfills and rather recycling and processing wet and dry waste through decentralized waste management systems, developed by them.

These startups play a critical role in addressing India's growing waste management crisis by promoting recycling, resource recovery, and sustainable disposal practices. This is just a small example of sector that is going to bloom in future. But, if there are pros, their has to be cons. The next part deals with many challenges this sector faces.

Challenges before waste recycling startup

Waste management startups are sustainable industry, that are aimed in making money while keeping the environment clean or by cleaning the environment, that has become polluted due to endeavors by humans.

But as its is prominent, every coin has got two faces. If there are positive point, there has to be many negative points, which converts themselves into challenges faced by these startups. Some challenges worth noticing are:

1. **Lack of public awareness to segregate waste at source:**

Normally, waste management startups face biggest problem due to not segregation of waste at the point where it has to be collected. As a result, mixed waste is very difficult recycle/compost/convert into something useful effectively and efficiently.

So, these kinds of startup have to invest something additional and spend more time for separation, which makes operations much costly and time consuming.

2. **Inconsistent Waste Collection Systems due to manual intervention:**

In all over India, waste collection systems are manual and thus they are inconsistent and unreliable. One recent example can be seen during Diwali were manual labor go on undeclared holidays, which continue up to Chatt Puja, resulting in inconsistent and unreliable waste collection process.

As a result, these startups have to invest in their own collection infrastructure leading to increased initial cost or seed money.

3. **Limited public awareness resulting in poor participation:**

In India, public is not at all aware of proper waste disposal and the various useful material that can be produced from waste. The result is low participation in waste segregation, composting, recycling etc.

Thus, these startups have to run awareness campaigns again and again, which is obviously time consuming and very much costly.

4. **No Government Support and Incentives:**

This occurs in spite of various policies like the Swachh Bharat Mission etc. Thus, these startups find that local implementation is weak or absent, and there is a absence of any incentive for running these sustainable startups.

5. **Regulatory Hurdles for these sustainable industries:**

Waste management startups have to cope up with lots of regulatory environment, and to top it, they have to cope up with different rules and requirements, depending on the state or city. The result is that these startups normally face delays in getting necessary permits and approvals.

6. **Fierce competition from the Informal Sector:**

Maximum portion of India's waste management is handled by the informal sector like waste pickers, scrap dealers which collects, sorts, and recycles waste at lower costs. Thus, public normally prefers to give waste to informal sector people because of the ease (no separation of waste and instant returns).

7. **Dealing with low profit margins:**

Waste management generates money but it is low margin business. This is true for India where waste generators are not willing to pay a premium price for waste collection and processing services. Instead, they prefer to give waste to informal sector, which takes the waste without headache of separation and gives quick money in return.

The result is investors are often hesitant to invest due to long payback periods and limited profitability potential due to fierce competition with informal sector.

8. **Dealing with infrastructure limitations:**

In India, there is lacks of adequate infrastructure for processing, recycling and producing something useful from waste.

Thus, startups are forced to invest in building or leasing expensive infrastructure, which reaches break even point at very later stage. In many cases, it never reaches the breakeven point are always is a loss making business.

9. **Handling Hazardous and E-Waste Challenge:**

Handling hazardous waste requires specialized facilities and processes, which are very costly, and beyond the affordability criteria of many startups. Moreover, proper disposal methods are absent or are not understood completely.

Thus, these startups have to face increased regulatory scrutiny and costs in dealing with these types of waste.

10. **Lack of Skilled Workforce:**

Waste management is still considered as unskilled labor job, which can be done by any individual. But waste management requires skilled labor for efficient waste sorting, processing, and handling hazardous materials.

Thus, these startups have to invest in training, which increases costs.

11. **Cultural Attitudes Towards Waste**

Waste management startups are considered as low-profile industry with lots of negative cultural attitudes. Thus, these startups face tremendous resistance from consumers and businesses. And one thing has to be remembered – changing attitude is a very difficult thing, approximately impossible.

12. **Funding Constraints:**

Waste management startups often require significant capital to build infrastructure, purchase equipment, and run operations. But they face lots of difficulty in attracting investors due to the long payback periods, low margins and the problem of negative attitude as discussed above.

So, in spite the facts that it is the sustainable industry, starting and running successfully waste startup industry in a uphill task.

Potential Solutions

In spite of above challenges, there has to be some ways to support this sustainable industry. Some possible solutions are as follows:

1. Government Support though enforcement of existing waste management practices, regulations and offering financial incentives to young startups.
2. Public-Private Partnerships: Collaborations with governments to provide integrated waste management solutions can reduce strain on these young startups.
3. Technology and Innovation through use of Artificial Intelligence, automation for efficient waste collection and processing etc. would reduce costs definitely and improve scalability.
4. Circular Economy Approach where waste is considered a resource and reused, can create new business models and revenue streams rather than something which is to be thrown away.

These suggestions can create a better world which is waste free and sustainable. In the end, Waste Startup is not a joke. It is happening, and a very fast pace.

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