



भारतीय प्रबंध संस्थान बेंगलूर
INDIAN INSTITUTE OF MANAGEMENT
BANGALORE

Hasiru Dala Innovations (B)

Enabling a circular economy. Enhancing lives.

Ajay Rawat, Geet Amrit, Kshitiz Aneja, Marc Oberhauser and Yannick Wiessner

ABSTRACT

Ajay Rawat, Geet Amrit, Kshitiz Aneja, Marc Oberhauser and Yannick Wiessner prepared this case under the guidance of Prof. Trilochan Sastry for class discussion. This case is not intended to serve as an endorsement, source of primary data, or to show effective or inefficient handling of decision or business processes.

Hasiru Dala Innovations Pvt. Ltd.(B)

On a fine Sunday afternoon, Shekhar Prabhakar and Nalini Shekhar, the Co-founder and Managing Trustee of Hasiru Dala Innovations were discussing the success story of their brain child over a cup of hot coffee. Glancing at the mammoth journey they have both travelled together to establish this organization in the year 2011 and how swiftly they have moved on to become a well-known household name among the apartments and housing societies in and around Bengaluru. Something that was more soothing for them was to look at the steady improvement in the living standards of the waste pickers and the informal waste workers who were the frequent victims of exploitation and ill treatment both by the waste mafias and the local authorities. It was only because of Hasiru Dala Innovations, the society is slowly starting to recognize their contribution towards making our environment and habitat green and clean.

Hasiru Dala Innovations: The Journey so far

Hasiru Dala Innovations was incorporated in 2015 and has managed to train its work forces to enhance their skills and impart the best service to the citizens. The present services offered are Dry waste collection, Total Waste Management for wastes generated in bulk, Bio gas plant operation and Composting activities. The work of the waste pickers mostly comprises of collecting the wastes, sorting them as dry waste, wet waste and rejects, grading the collected waste and transporting the same for recycling. This cycle is much important to have a green and circular economy along with dealing with the climate change.

Based in the Garden City of India, Bengaluru, Hasiru Dala Innovations is slowly and steadily marking its presence in other cities like Mysuru and Nelamangala as well as providing consultancy services to townships in other parts of Indian cities like Jamshedpur. Apart from focusing on creating livelihood, the organization is also focused on bringing in the workers under the umbrella of social security where they can have access to the basic needs and this in turn will improve their standard of living. The occupational identity cards issued by the government are provided to the workers to give them a sense of identity as well as making them eligible to apply for a bank account (Financial Inclusion), health insurance schemes, scholarships and loans for the education of their children or starting their own ventures.

Success in regulatory reforms

It was the effort and struggle of Nalini Shekhar and other activists, the government took some serious measures towards making the waste management sector into an organized one. Government approved scheme of issuing ID cards for the waste pickers working for empaneled service providers like Hasiru Dala Innovations, which Hasiru Dala Innovations Implemented in 2011.¹Also, Government mandated bulk waste generators to manage the waste by paying empaneled waste collectors.

Genesis

Nalini Shekhar started organizing waste pickers in the year 2010 after coming from US. She visited slums and 200 waste pickers joined her initially which increased in short time. For initial operations, Rs 50 were collected from each member and thus total Rs 30000 rupees became the initial corpus. The first customers belonged to 4 apartments. This was just a humble beginning of a revolution which

¹ <http://timesofindia.indiatimes.com/city/bengaluru/Making-an-enterprise-out-of-picking-waste/articleshow/17188034.cms>

has the potential of solving city's plight of its waste burden. As it grew bigger, Hasiru Dala Innovations had the dilemma of choosing the structure of organization. They could make it a cooperative or a private enterprise. While cooperatives get a lot of government support, they are not allowed to pay any dividend to outside investor. This could have been a hurdle in scaling up. Therefore, Hasiru Dala Innovations chose to have private limited company structure and sustain it through profitable operation rather than government grants.

The Organization: Mission, Vision and Values

Mission: Creating sustainable opportunities for waste pickers and other informal waste workers in the urban economy and for conservation of our natural habitats.²

Vision: An inclusive society for waste pickers and other informal waste workers, free of discrimination based on their caste, religion, occupation, gender and sexuality.

Business Model and Supply Chain: Hasiru Dala Innovations is in the business of Waste collection. Although the supply chain of Waste is partially in place but it is either informal or highly unsystematic. Hasiru Dala Innovations has tried to organise this sector by providing identity to the waste pickers and acting as a medium to co-ordinate among various stakeholders in the chain. To describe how it works, lets first have a look at various stake holders it deals with and their role in its functioning:

The Government: The role of the Government is to empanel Hasiru Dala Innovations among its authorised waste collectors. Also, it provides ID cards to waste pickers.

The Customers: Customers of Hasiru Dala Innovations are mostly bulk waste Generators like housing societies and apartment complexes. Bulk waste generators are defined as housing complexes having more than 50 units of houses and institutional or commercial complexes generating more than 100kgs of waste per day. These customers are mandated by the law to segregate the waste at source and pay the empaneled waste collectors for their services. Therefore, they keep the waste as Dry, Wet and Reject categories.

Waste Pickers and Van Units: These waste pickers were already operating in the informal system. Because of the efforts of Hasiru Dala Innovations, they have been given identity cards and recognized as people responsible and authorized to collect waste. A team of 4-5 members constitutes a van unit which includes a driver, two members for collecting and transporting the waste and two for sorting the same. The van owner can himself act as a driver. The van is initially purchased by Hasiru Dala Innovations, taking credit from the bank. The installments are paid by van unit owner to Hasiru Dala Innovations which pays it to bank. After four years, the van ownership is transferred to the van unit. Each unit is expected to cover 1600 households.

Partners: Hasiru Dala Innovations sells the wet waste to Bio Gas plants and rejects to cement plants. Also, some of the reject also goes to landfills. Sanitary waste goes to hospitals for biomedical waste management facility while electronic waste is sent to authorized recyclers.

² <http://hasirudala.in>

The Supply Chain of Waste: As mentioned earlier, the waste is segregated at the source broadly under three categories: dry, wet and reject. All the three type are collected by same van unit and transported to Secondary Transfer Point owned by Hasiru Dala Innovations. From there, the wet waste is transferred to tippers and sent to Bio Gas plant. Dry waste is kept with the van unit and they carry it back to their own waste segregation point, usually their homes. The waste pickers use their own market understanding to segregate waste into 72 categories and sell them to recyclers in the market. Still some of the dry waste is not sellable, Hasiru Dala has advised them to keep them at their places in bags. It's a government law that they need to have 5% of their solid fuel as municipal waste. They sent their vehicle to this place and collect all those bags. Not even single packet of waste is thrown away in the city. The sanitary waste is sent to hospitals' biomedical waste

Economics and revenue sharing: Hasiru Dala Innovations has an innovative payment system. The fees paid by customers to Hasiru Dala Innovations have a fixed and a variable component. Fixed component is same for all households. Variable component depends upon the weight of the waste and the kind of the waste generated. While wet waste is free, dry has some fees and reject has somewhat higher fee than dry waste. Such system encourages people to segregate waste properly and reduce their waste. Out of this income, Hasiru Dala Innovations pays the Van unit a certain amount. The Van units also earn the revenue by selling the dry waste and this revenue is totally their own. Thus, while they earned daily about Rs 100-200 before and that too being unpredictable, now they manage to get a fixed sum of around Rs 8000-9000 monthly.

Pricing plan of Hasiru Dala Innovations: The pricing plan is mainly based on the weight of the generated waste rather than the number of households served. The mechanism of pricing is based on the concept of 3 R's: Reduce, Reuse and Recycle. Sanitary wastes and the rejects are generally priced at Rs 3 per kg while the biodegradable waste is kept at Rs 2 per kg. The bulk generators receive Rs 2 per kg for the recyclables. The variable rates encourage people to segregate the waste products in an efficient manner. Apart from the variable part, there is also a fixed base rate imposed on the apartments and housing societies based on their size. At the end of every month, the apartments are provided with a consolidated invoice and since, the waste materials are to be measured on a day to day basis the apartments and societies could easily keep a record on the amount of waste generated over a period of time.³

Impact of Hasiru Dala Innovations

Hasiru Dala Innovations in collaboration of with the *Bruhat Bengaluru Mahanagara Pallike* (BBMP) facilitated in distributing occupational identity card to the waste pickers and this move has helped in creating a sense of identity and pride for the waste pickers in Bengaluru. 7500 waste pickers have been equipped with identity cards which provides them a social security from being harassed by the local municipal authorities and police. Earlier the situation of the waste pickers was abominable

In an interview with **Aniket Bhalerao**, Head of Operations at Hasiru Dala Innovations, he stated that:

“These people generally live in slums. They live as a group together. Many of them have migrated here. Recently there was an issue also. One of person from Belapur slum in Bengaluru had a fight with

³ http://hasirudala.in/wp-content/uploads/2016/06/Hasirudala-Annual-Report-2014-2015_final.pdf

police. Then police came with force and they destroyed all their houses. One or two people might have had a fight but consequences were given to all. Generally, they become waste pickers because their ancestors have been in this field and they know that business in and out.”

A stable source of revenue is being generated and there has been a significant increase in the income of the waste pickers. With a defined working time and proper distribution of the task, the workforce now is more organized. More than 500 new jobs have been created for the waste pickers and a few of them are looking to implement their own entrepreneurial ideas. The waste pickers are slowly being brought under the umbrella of various government schemes including the *Jan Dhan Yojana*, National Health Insurance Scheme and various scholarships and loans for supporting the education of the children of the waste pickers. Apart from this, Hasiru Dala Innovations organizes health camps for the waste pickers, summer camps for their children to provide educational support and developing training modules to enhance the skill set of the waste pickers so that they can work for various small and medium enterprises.⁴ Other major achievements of Hasiru Dala Innovations are being summarized in **Exhibit 5**.

INNOVATIVE SOLUTIONS:

The job of collecting waste from all over the city, through individuals who are much literate and may not be used to organized form of working can never be an easy task. Hasiru Dala Innovations has applied innovative thinking to solve some issues which were unparalleled compared to any other sector. Here we mention some of them and how they were tackled:

- **Man Power management:** It could have been a herculean task for group of few people at Hasiru Dala Innovations to keep record of and track all the waste pickers working for Hasiru Dala Innovations, especially when they are not used to organized work culture, may be difficult to track. In such cases, absenteeism and irresponsible behavior are major challenges even for contractors while working with them. Therefore, Hasiru Dala Innovations chose to go for franchise model. Now each van unit acts as franchise of Hasiru Dala Innovations and is managed by the van unit owner, who is the person selected by Hasiru Dala Innovations for his managerial and entrepreneurial qualities. He is paid higher and is responsible for routine operation of the van unit. Thus, Hasiru Dala Innovations has isolated itself from the issues of managing such a huge man power.

This has an extra advantage of utilizing the experience and expertise of waste pickers who spend majority of their lives in this occupation. They are best people to know how to sell a waste product at best possible price. Hasiru Dala Innovations has capitalized this experience by allowing them to manage the dry waste themselves and let them get their fair share of the hard work they do.

- **Maintenance of vehicles:** Hasiru Dala Innovations could have provided the vehicles to van units and charge them on the monthly basis. But it does not guarantee proper care and maintenance of the assets by the driver and staff, when they know that the van belongs to Hasiru Dala Innovations. By offering the transfer of ownership of the vehicles after 4 years,

⁴ <http://hasirudala.in/highlights/>

Hasiru Dala Innovations encourages van units to be responsible for proper care of them, as now they have a sense of ownership for the vehicle. It relieves Hasiru Dala Innovations from the worries of maintenance of its assets.

- **Management expertise:** As each van unit is a franchise in itself, it should manage its own finances. Although these people are very street smart, they may not have skills to manage day to day accounts, plan for scaling up, ensuring proper wages for the unit members or knowing how to get benefit from the government schemes. To avoid such issues, Hasiru Dala Innovations provides training to Unit owner in association with Jain Group of Institution through a certification course for scrap dealers, which includes practical information for running such business.

Quoting **Aniket Bhalerao**, Head of Operations at Hasiru Dala Innovations

“If we have to start a new van unit we might not be able to give him 1500 households from the beginning. Suppose that they start at 500 households but still we will pay them for 1500 households and tell them that it is their subsidy and payment will not increase in future. Gradually more households will be added to them. They understood this concept very clearly. Till now we have not focused on any marketing techniques. It was all through the word of mouth. But now we are working on it.”

Other activities: Hasiru Dala Innovations offers a range of services and carries out whole spectrum of activities for waste pickers. Some of them are mentioned below:

- Managerial assistance to Dry Waste Collection Centers
- Operating city’s three Bio Gas units
- Event waste management
- Urban Gardening
- Training for Mushroom Cultivation
- Waste Management Consultancy
- Advocacy

Support for Hasiru Dala Innovations:

Hasiru Dala Innovations is supported by Social Alpha which act as its incubator. Social Alpha is an Incubator and Investor promoted by Tata Trust, which focuses on Non-for-loss, i.e. organizations having some social impact but not focused on profit. According to the co-founder of Hasiru Dala Innovations Shekhar Prabhakar:

“We are being incubated by Social Alpha, the social impact fund. We have signed the second term sheet and the due diligence is going on. So, if that comes through without any problem, then we will be funded until march 2019. We hope to get profitable by August 2017 and Cash-Flow positive by December of next year. So, that’s where we are. “

Also, Hasiru Dala Innovations is very much dependent upon waste segregation awareness among the citizens. It supports **Two bin One bag** concept which is advocates for keeping two bins, for wet and reject waste and one bag for dry waste. This campaign is independent of HASIRU DALA INNOVATIONS

and is supported by many individual organisations as well as many celebrities like Rahul Dravid, Milind Soman, Siddaramaiah and Raghu Dixit etc. ⁵

Competitors: The competitors of Hasiru Dala Innovations are other organizations which are empaneled with BBMP for waste collection. A brief list of the competitors of Hasiru Dala Innovations in the three segments of Dry Waste, Wet Waste and Rejects is provided in **Exhibit 6**. Among these, Sahas and MSGP are the main competitors. Particularly MSGP is there for 15 years, is expanding aggressively backed by political connections.

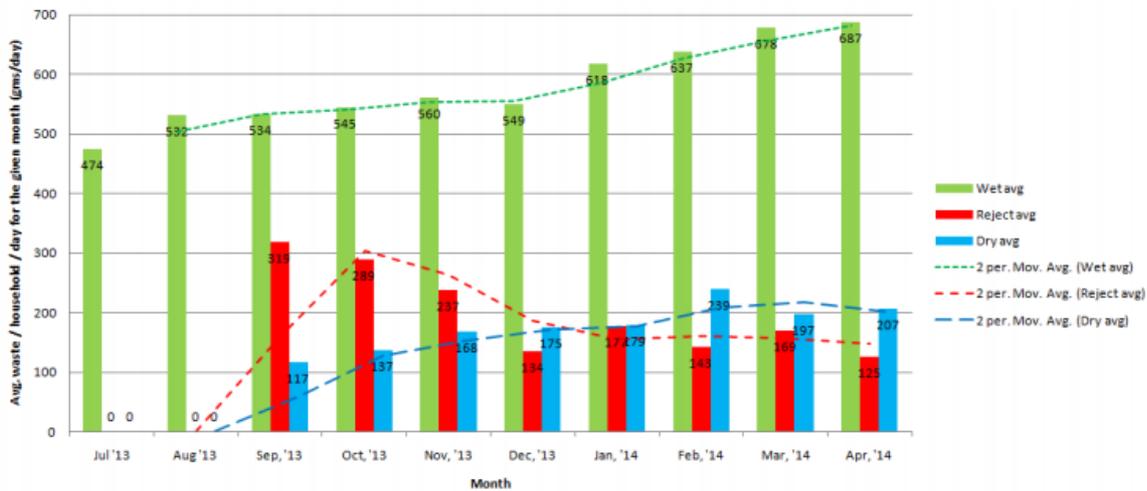
The Road Ahead

All the business plans that the company has is mainly focused on Bangalore and they are currently running a pilot in other parts of Bangalore to tackle the issue of scalability. Earlier they used to target household of 1500 to start business in a certain geography. But now they have become more confident and risk taking and are willing to go even if the number of apartments are 500. Although their break-even point is 900 households. They are facing the following challenges in scaling up:

1. Currently whatever business they have is all through word of mouth marketing. They have never been indulged in any marketing activities. But they want to experiment and check the results of it. What do you think would be the right marketing strategy for them to get more apartments on board?
2. With their scaling up, they need additional secondary transportation near Whitefield (apt as per locational advantage). But the cost of such a lease in that area is very high and the owners don't even want to give the lands for this purpose. Where should the Secondary Transport Centre be established to achieve operational efficiency?
3. Think about your own city and discuss if Hasiru Dala's model can be implemented there? What will be hurdles and what will help?
4. How should they scale up? Should they consolidate the business in Bangalore first or start operations in other cities simultaneously? Will it be good idea to start campaigning for waste segregation in other states to expand market prospects?

⁵ <http://www.2bin1bag.in/>

Exhibit 1 Trend of average waste generated/household/ day for Hasiru Dala Innovations apartments



Source: Hasiru Dala Innovations Annual Report 2014-15

Exhibit 2 Major Achievements of Hasiru Dala Innovations

Achievements



-  More than 7500 waste pickers have sense of occupational identity
-  More than 13000 households in Bengaluru accessing waste management services provided by erstwhile waste pickers and other informal waste worker
-  Insurance and banking facilities extended to waste pickers and informal waste workers
-  500 new jobs created for waste pickers and informal waste workers
-  Daily more than 50 tons of waste sent for either composting or recycling
-  Waste pickers managing operations of Municipal Corporation installed waste aggregation and processing facilities
-  Children of waste pickers and other informal waste workers accessing scholarships and educational loans for good quality education

Source: Hasiru Dala Innovations Website

Exhibit 3 Major competitors of Hasiru Dala Innovations in Dry Waste, Wet Waste and Rejects segment

Dry Waste	Wet Waste	Reject
Samarthanam Trust for the Disabled	Saahas Waste Management Pvt. Ltd	Rock Crystals
R. Venkatesh	MSGP INFRA TECH PVT	
K.K Plastic Waste Management Limited		
M/s Mahadevpura Mahila Okkuta		
N. Sridhar Professional Waste Management		
M. Anand Reddy		
M/s Shudh Labh		
M/s Waste Wise Management & Consultancy Services Private Limited		
Saahas Waste Management		
Sri Khaleel		
M/s Swachha Eco Solutions		
MSGP INFRA TECH PVT Ltd.		
M/s Sri. Balaji Nagar Sthree Sakthi Sangha & Spandana Sthree Sakthi Sangha		

Source: BBMP Website
 (<http://bbmp.gov.in/documents/10180/0/Approved%20Vendor%20List%20with%20note%20for%20Website%201.pdf>)

Exhibit 4 An apartment in Bengaluru catered by Hasiru Dala Innovations

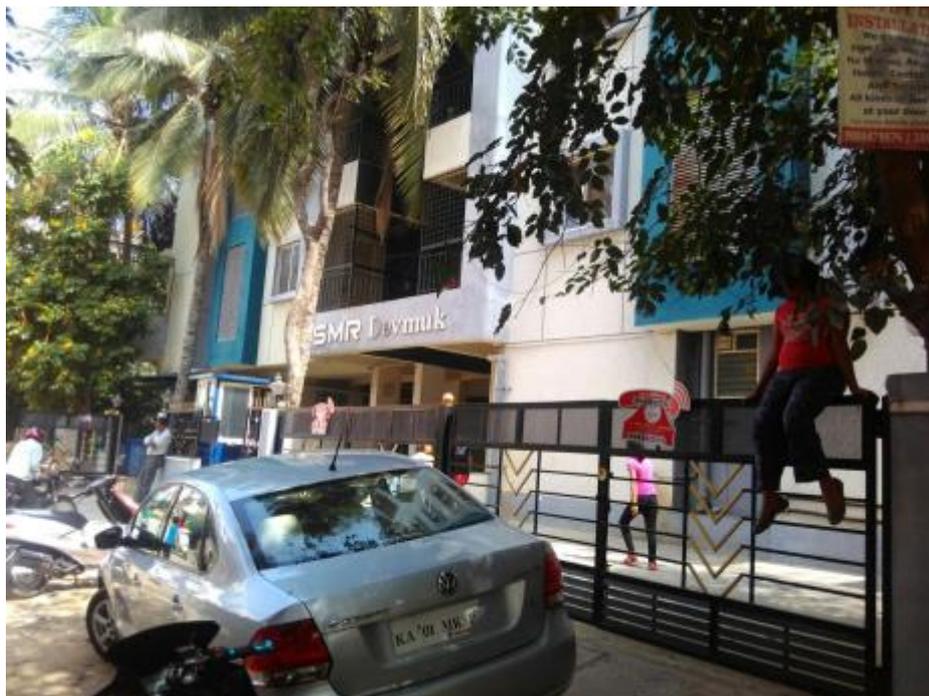


Exhibit 5 Collection of wastes by a Van unit of Hasiru Dala Innovations



Exhibit 6 Segregation of wastes into Dry and Wet waste



Exhibit 7 A typical Van unit used for collection of wastes from apartments



Exhibit 8 Members of a typical Van unit



Exhibit 9 Training sessions conducted by Hasiru Dala Innovations for waste pickers and scrap dealers



Source: Hasiru Dala Innovations Annual Report 2014-15

Exhibit 10 Educational support camps organized by Hasiru Dala Innovations for the children of waste pickers and informal waste workers



Source: Hasiru Dala Innovations Annual Report 2014-15

Exhibit 11 Health camps for the waste pickers and informal waste workers organized by Hasiru Dala Innovations



Source: Hasiru Dala Innovations Annual Report 2014-15