



Business Plan

Residential Solid Waste Collection
(D&M ROSKI LTD)

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Bachelor's Thesis

Bachelor's degree (UAS)

Field of Study Technology, Communication and Transport			
Degree Programme Degree Programme in Industrial Management			
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Title of Thesis Residential Solid Waste Collection			
Date	7.6.2013	Pages/Appendices	30/1
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Client Organization/Partners Savonia University of Applied Science			
<p>Abstract</p> <p>Residential solid waste means all the solid wastes produced in household level, which includes bio-waste, metal, mixed wastes, organic and inorganic waste. The inability of municipalities to handle the increasing amount of waste generated in Tanzania is a growing problem which gives opportunities to create an idea of starting a waste collection company.</p> <p>The aim of this work was to study the market trend on residential solid waste collection and the chances to create a business which will be profitable and help the community from accumulated waste disposed irrationally which pollute the environment and causes epidemic diseases. By using the information on prevalent municipal solid waste management in Tanzania and Finland and the way of handling it, gives the author an idea on how to tackle the existing problems that the municipalities, organizations and small companies are facing in Tanzania.</p> <p>It was concluded that the best option is to start a business in a small area which new technology of waste collection will be introduced and implemented. Modern equipment will be used and study will be provided to the community to make them aware on the waste separation services. But all those cannot be done with an empty hand, instead funds will be applied from the Finnish government as a starting capital and later the company will generate its own income from services.</p>			
<p>Keywords Residential solid waste, bio-waste, municipality, collection.</p>			



TERMINOLOGY USED

Waste: means any generated substance that may be excluded during the extraction of raw materials and finally disposed by the provision of national law.

Bio-waste: means biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants

Waste management: means the collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites.

Collection: means the gathering of waste, including the preliminary sorting and preliminary storage of waste for the purposes of transport to a waste treatment facility

Prevention: means measures taken before a substance, material or product has become waste

Re-use: means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived

Treatment: means recovery or disposal operations, including preparation prior to recovery or disposal

Recovery: means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy

Preparing for re-use: means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing

Recycling: means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations

Disposal: means any operation which is not recovery and need to be discarded.

Municipal Solid Waste Management: it is the process that includes the supervision of durable goods, non-durable goods, containers and packaging, food wastes and yard trimmings, and miscellaneous inorganic wastes.

RCSA (Risk and Control Self Assessment): This is a system where by the appointed staff will be listing all the possible risks and controls periodically. It will help prevent and control the work related risks.

ACKNOWLEDGEMENT

I would like to gratefully and sincerely thank Jukka Suonio and Jarmo Pyysalo for their guidance, understanding, patience, and most importantly, their friendship during my graduate studies at Savonia University of Applied Sciences. Their mentorship was paramount in providing a well rounded experience consistent my long-term career goals. They encouraged me to not only grow as an engineer but also as an instructor and an independent thinker. I am not sure many graduate students are given the opportunity to develop their own individuality and self-sufficiency by being allowed to work with such independence. For everything you've done for me, Jukka and Jarmo, I thank you. I would also like to thank all of the members of EW8SI class and all my teachers.

I thank my parents, Gomel and Zuwena, for their faith in me and allowing me to be as ambitious as I wanted. It was under their watchful eye that I gained so much drive and an ability to tackle challenges head on. I wished long life in heaven and hoping to see them again.

Finally, and most importantly, I would like to thank my young siblings Hawa, Erick and Ladislaus. Their support, encouragement, quiet patience and everlasting love were undeniably, the difficult period upon which the past nine years of our life have been built a strong bond between us and keep us together too.

Also, I thank my little expected princess and my baby's father, who also endured and survived the experience of graduate school and provided me with unending encouragement and support.

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INTRODUCTION

This chapter contains general introduction, highlighting the issue of solid waste management in developing countries and Tanzania as well. Methodology and scope of the thesis are part of this chapter followed by conceptual framework of the thesis.

1.1 Background overview

In many part of developing countries especially in the African continent, environmental problems have revealed to create a great challenges. This can be seen in the section of municipal solid waste management in different part of the countries' regions. While the quantity of waste produced increasing day after day in urban areas, and the effective means of handling in terms of collection, disposal and recycling remains low. Waste generation rate is increasing with the increase of population, technological development and the changes of the life style of the people. (Lusaga, Kironde, 1999).

Tanzania as part of developing countries is facing the same challenges in solid waste management. As of now, the major population is not aware about the consequences of the wastes and continues disposing the wastes irrationally. In Dar es Salaam Tanzania the local municipal council is responsible of collecting, transporting and disposing the MSW as a public service. Although in recent years the contract has been given to private companies to operate in some part of the cities where the municipal council was not able to cover the service. The number of equipment has been low compared to the need of the people and the technology used to handle the waste is poor.

The system of handling waste requires large financial resources which makes it impractical to the government sectors to deal with the problem of waste management. Due to this fact there is an opportunity for private sectors to engage into business. (Solid waste management in Temeke Municipality)

1.2 Purpose and Objectives of the Thesis

The main goal is to complete the degree programme as well as a cherished dream for an Author to start up a small business in her home country. And below is a list of the thesis objectives

- To improve the standard of living to the area where this business will take part.
- To create job opportunities to the people around the area.
- To improve waste collection activities and municipal waste management as well.
- To educate the people concerning waste recycling and garbage sorting.
- To raise fund for the benefit of the company and workers as well.
- To increase the National income through tax paying.

1.3 Scope and Limitation of the Thesis

This thesis mainly focuses on the studies from Tanzania and Finland and all the information might be used at Dar es Salaam municipalities for the project implementation in the future. It concentrates also in garbage collection from the part of Dar es Salaam municipalities. Limitations includes time and inadequate material findings from Tanzania; as well as language barrier which made the writer to select a small portion of sample size, which is a representative for the total population.

1.4 Conceptual Frameworks

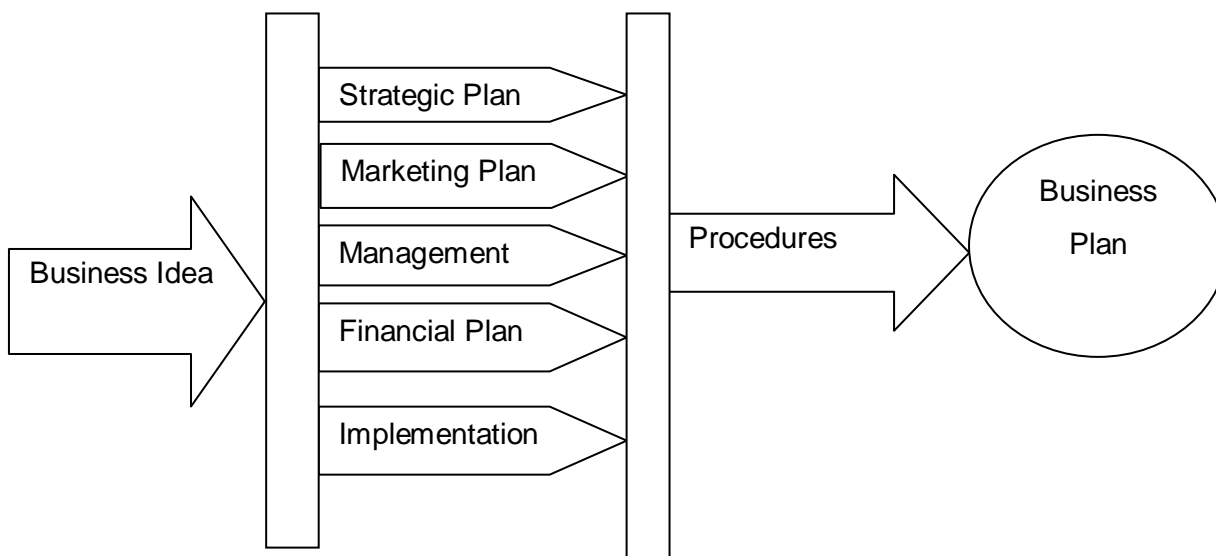


Figure.1 Conceptual framework of the thesis

The conceptual framework above shows the diagrammatic illustration of the thesis concept. As the business plan generated from an idea and proceeding with different steps for example identifying of the product or services that the business is going to offer, strategic plan, marketing plan etc. After all these planned steps followed then the business plan can be written (A business plan).

1.5 Study Methodology

Primary and secondary data collections have been used. The study uses interviews, observations and questionnaires. This method has been helpful due to the fact that in Tanzania, issues concerning waste management have received little data and it's hard to find them. Also data from Internet were used in this thesis writing as well as books from library and online.

2 WASTE MANAGEMENT IN DAR ES SALAAM, TANZANIA

2.1 An overview of Tanzania

In 1964 Tanganyika and Zanzibar merged together and formed a country known as Tanzania. This was achieved after Tanzania received independence in 1960's from British colony. It is occupying an area of 945,300 km² bordering to Mozambique, Malawi and Zambia to the south, Indian Ocean to the east, Democratic Republic of Congo, Rwanda and Burundi to the west and Kenya to the North. Tanzania has population of approximately 46,912,768 (July 2012 est.), and the population growth of 2.85 % (2012 EST). It comprises with 26 regions with a capital city of Dar es Salaam. Dar es Salaam city is covering an area of 1,397 km² and 2, 5 million population approximately. It is also divided into three municipalities, i.e. Ilala, Temeke and Kinondoni municipality and all these operate separately.

Swahili or Kiswahili is the mother tongue although English is an official primary language of commerce, higher education and administrations. But among the ethnic groups each tribe has his own language (local languages) and these are more than 120. (World fact book Tanzania)



Figure 2. A map Of Tanzania showing main regions

2.2 Waste generated in Dar es Salaam, Tanzania

Dar es Salaam has approximately a total of 3.5million residence with different lifestyle and income. It is located in the east coast of Indian Ocean and covers an area of about 1,800km². The city of Dar es Salaam has the growth rate of 5.4%. It said to be the largest city in terms of commercial activities. In administrative, it is divided into four authorities- The Dar es Salaam city council, Temeke, Ilala and Kinondoni municipal council. Among these three municipalities Kinondoni has the largest population.



Figure 3: Map of Dar es Salaam Municipalities
(Dar es Salaam municipalities)

The waste generated is estimated at an average of 1100 tons per day in Ilala municipality, 2026 tons per day in Kinondoni municipality and 823 tons in Temeke municipality. They all together make a total of an approximately 4161 tons per day.

All the waste generated from the city comes from households, industries, markets, institutions and streets as well.

The table below shows the waste generation in Dar es Salaam municipalities.

Table 1 Waste generation in Dar es Salaam municipalities

Municipality	Waste generation(tons/day)	Amount collected	Collection rate (%)
Ilala	1100	430	39
Temeke	1035	280	27
Kinondoni	2026	823	41
Total	4161	1533	37

Source: (Dar es Salaam Metropolitan Development Projects 2011, waste management proposal)

2.3 Waste management services in Dar es Salaam, Tanzania

Waste management operation in Dar es Salaam is a basic service affecting the health and environment of the citizens and it is not only the part of the infrastructure of the municipalities but also waste contractors, N GO's and pushcart boys. Waste collected, transported and disposed is said to be below 50% of the total waste generated in the Dar es Salaam municipalities.

Municipalities are illegible to organize Municipal Solid Waste. And each of them has joint waste stations for the work development according to environmental demand. But these waste stations are very poor and make the issue of recycling and recovering to be very slower. Some people have been employed themselves on recycling business.

Waste collection activities are done in a mixed way of operations involving a house to house collection for the planned areas and a selected collection point for those who are in unplanned residential areas. The transport of waste is done by pushcarts from household to the collection point mainly by guys who engaged themselves into business. Later is transported to the dumpsites by trucks and then sorted out by a group of men, women and contractors. Aluminum scraps, paper, iron sheets, plastics, iron and steel scraps are the most recyclable item materials, although they are facing a lot of constrains like lack of equipment, inadequate business information education, transportation problems and poor working environment.

Currently Dar es Salaam has a total of 45 contractors, out of which 26 from Kinondoni municipality, 17 from Ilala and 2 from Temeke.

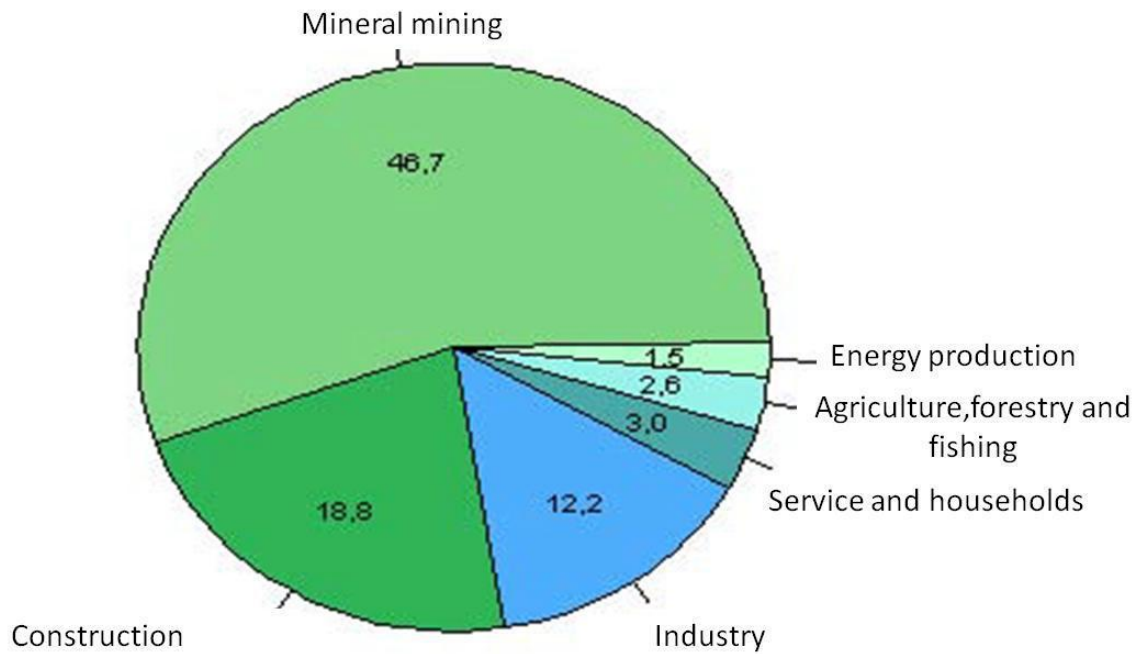
Depending on the amount of waste generated, the municipalities are not able to transfer all the waste to the dumpsites. (Juma Uloleulole, Local government councilor 28.03.2013)

Table 2. Existing equipment that municipalities owning.

	Equip- ment Owner	Existing Working Equipments					
		Tip- per truck s	Com- pactor trucks	Skip mas- ters	Skip con- tainers	Trac- tors	Trail- ers
1	Ilala MC	6	-	-	-	1	8
	Private (IMC)	15	2	-	-	2	-
2	Kinondoni MC	10	-	-	-	2	38
	Private (KMC)	12	4	-	-	2	-
3	Temeke MC	6	-	2	22	2	14
	Private (TMC)	7	-	-	-	2	-
Total		56	6	2	22	11	60

2.4 Waste generated in Finland

According to the statistics, it shows that the amount of waste in Finland is increasing. In 2004, the amount of waste was approximately about 66 million tones, In 2007, It was about 74 million tones and, in 2009, it was almost 85 million. The large amount of the waste is produced in the construction, mining and quarrying sector. (Waste generated in Finland, Finnish environment institute, 16.3.2013)



84,9 tonnes in total

Figure 4: Percentage of waste generated in Finland by sectors.

In Finland about 60 % of Municipal Solid Waste is generated by households and the rest is produced in the service sector. In addition, all together the share of households and public sector is estimated to be that 86 % is from households and 14 % is from public services as the table 3 shows.

Table 3. The amount of waste produced in households, public services and private services (Ministry of Environment 2013).

Waste produced	Households and Public services (tones/a)	Private services (Tones/a)
Mixed waste	1 199 000	376000
Paper and cardboard	258000	132000
Bio-waste	156000	121000
Wood waste	3000	29000
Plastic waste	24000	25000
Others	215000	59000
Total	1 854 000	742 000
All in Total	2 596 000	

2.5 Waste management services in Finland

Waste management in Finland is a basic service that is affecting the health and environment of the people and it is part of the infrastructure of the municipalities. Waste management services consist of collection, transportation and treatment systems organized by municipalities, companies and organizations with producer responsibility. Municipals are responsible in organizing Municipal Solid Waste. Most of Finnish municipality may organize Municipal Solid Waste by itself, or together with other municipalities. The regional joint-stock and federation of municipality's waste stations have been planned to work effectively and have resources for development work according to their environmental demands. Currently there are 40 regional waste management companies providing services to 350 municipalities and 4.8 million people in Finland. Those services include collecting, transporting, handling and utilization services organized by waste companies. Most of municipal waste companies are working together with industries and producer organizations.

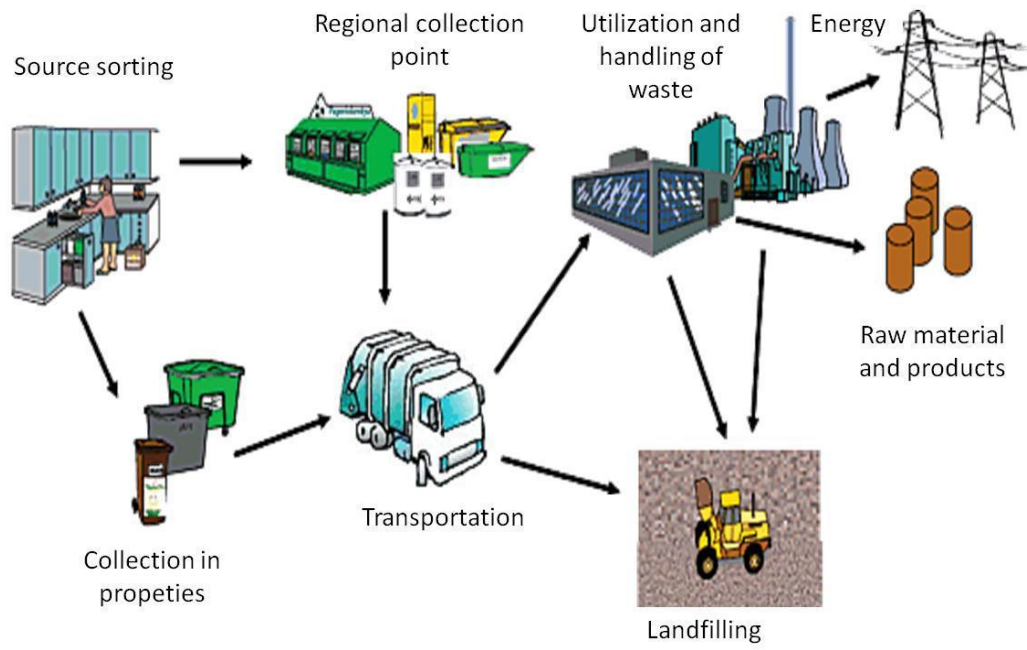


Figure 5. Municipal solid waste management system in Finland

3 D&M ROSKI LTD

D&M Roski Ltd is a residential solid waste collection company that will be based in Dar es Salaam, Tanzania. The name D&M came from the owner's initial names, that means 'Dorice and Mazengo'. And Roski is coming from Finnish word Roska which means 'Trash' in English.

3.1 General description of the business

D&M Roski Ltd is a partnership owned by the founders who are also directly responsible for financing the start-up costs associated with operations, maintenance, facilities, salaries and all management cost.

The waste management business has been developed to provide the removal and management services. As we all know the solid waste has been increased as the population increases. The demand for waste management services has been a core tool to keep our environment safe. The business will focus mainly on residential solid waste, public services waste and industrial waste as well.

It is a medium size company which the office at the beginning will be located at Kijitonyama area in Kinondoni municipality quite close to the shopping center (market area) and the parking yard for vehicles planned to be rented.

3.1.1 Legal structure

As we know legal structure is the fundamental of how the business it operates. The company structure can be chosen according to its complicity. General partnership is our form of legal structure because there are few regulatory requirements and the operational cost is still small. Both partners are capable in terms of business managerial skill necessary for operating a business of this kind and size at least for the beginning. One other main reason as to why ordinary partnership is suitable for the business is that we will be equally liable for the partnership's debts and it will be governed by the partnership agreement paper.

3.1.2 Mission of the business

The main mission of the business is to become a recognized company in its targeted market for high quality in solid waste collection services. Apart from that profit is all about the reason for starting this business and also improving the life of the people in Tanzania, by providing reliable service with affordable price. The business aimed to generate high streams of recurring revenue from household and businesses.

The authors intend to produce innovatively unique trash collection service that will become the most perspective service in the town due to its modern service structure and low cost. The authors will ensure financial stability and progress of the partnership by continuously implementing necessary cost cutting measures aimed at profit generation, growth and continued development in quality service. The company will also maintain a friendly, fair and creative work environment which respects diversity, new ideas and hard work. (Mission of the business, James Mwanja)

3.1.3 Vision of the business

The business vision is to be a vital innovative, successful business driven by value added service. The core values are:

- Provide high quality service for our customers
- Provide ourselves with an economic activity
- To improve and practice ethical business standards
- To take part in environmental safety and conservation
- Meet the needs and the changing desires of the customer

The goals of our business include the following

- Improving our customer service by adding value and good service.
- Improve the profitability of our business.
- Increasing work efficiency of our employee.
- Improving the ability of staff training.

3.2 Industry analysis

3.2.1 Main products and services of the business

The company will be offering garbage collection, selling garbage cans and educating the inhabitants the knowledge about protecting the environment and conservation, the importance of sorting and recycling the waste. There will be two ways for provid-

ing these services; through household and public institutions like market area, schools and colleges.

3.2.2 Production

In the first year, the company will purchase some of the required inventory (supplies) from Finland where the waste Municipal Solid Waste technology will be employed. Some of the supplies such as collecting trucks, trash bins, trailers and other required materials will be purchased from the contracted Finnish companies. The contracts will be arranged and signed when the fund will be given. The company owners have planned for and will adopt a self-sufficiency principle where it is possible to be capable in raising our own capital for the company development new year. This will be achieved by distributing and allocating the fund in appropriate manner.

3.3 Market analysis and segmentation

The author's business idea came from the perception that most of the existing solid waste collection businesses in Kinondoni municipality have the same key problems. The owners do think that by starting a new waste collection company which provides solutions to the perceived problems, they shall have created a successful business.

3.3.1 Specific segments

Local population of Kijitonyama ward is around 49,096. This was 2002 census estimation, but now it might be more because the population keeps growing and businesses are growing too. The demand for trash collection service is getting high. The main segment market here is Dar es Salaam city council, household, food vendors, markets, schools and colleges

3.4 Marketing Plan

Marketing plan is the process of developing and implementing a plan to identify, anticipate and satisfy consumer demand so that to make a profit. This can be done with the following strategies:

3.4.1 Pricing

The company founders have decided to enter the business with customer value pricing strategy which in other words is following the market leader strategy. The reasons for the chosen strategy are not to lose potential customers to existing businesses, which are the competitors, by setting prices higher. Similarly, low prices may have the effect of creating a cheap bad quality service image hence damaging the business.

The business market target segment is the price sensitive. This segment is more willing to pay what is regarded as the price level or the general going prices as long as the service is worth. The price sensitivity affects the market share and competitive position in regard to this business in Kinondoni.

Given that the target customer segment is the same as those for competitor, so raising service prices because of its uniqueness and better quality will possibly act as an incentive to the competitors to provide the same services within a short time.

3.4.2 Promotion

Different promotions will be used and designed towards our customers in Kijitonyama-Dar es Salaam, Tanzania as follows:

- Company website will be designed to make easier search in Internet.
- Printing out brochures about the company and what the company is doing.
- Marketing of a products and service before launching means that company founders will advertise the services once or twice in local newspapers before starting day.

Group of local people will be employed to educate the people about the service that the company will be offering around Kijitonyama.

3.4.3 Advertising

The company will be using opportunities presented by the yearly development planning shows (exhibitions), local seminars to advertise it to the target customers. This will be done by the use of local television time and the use of posters at strategic places in the town.

3.5 SWOT Analysis

This is a guideline that helps to identify the positives and negatives impact of our business. It develops a full awareness of company situation in strategic planning and decision making.

3.5.1 Strengths

The company location provides the business with strong belief that profit ratio will be satisfied. The customer culture and the behavioral characteristics upon solid waste bring strength to our business. The ability to provide affordable services and products is our key success, the location which is accessible to have local push boys who are not well skilled in the business. The access of good infrastructure, skilled management personnel and modern technology of solid waste management will be our business strength.

3.5.2 Weaknesses

The company could be in a weak position when it has to rely on aid from donors and or when the country policy change on all matters concerning Municipal Solid Waste. The replacement of the management would be also necessary as a result of death occurrence. The author who happens to be the founder is already well aware of her weak financial starting position.

3.5.3 Opportunities

The company found that the business trend at Kijitonyama gives us opportunities to put the business in town. The demographic location in Kijitonyama area is a huge opportunity by itself. The owner has flexibility afforded by adequate information about the country and legislation issues through a family member who is a member of local government in Kijitonyama ward. The management also has a big opportunity to lower the unit costs while most of the competitors have theirs high.

3.5.4 Threats

The threats that founders would have to deal with will include bad political environment and policy about Municipal Solid Waste which may affect the ethnic structure of the potential customers, poor economic stability of the country and hence high inflation leading to low customer disposable income and the possibility of eventual high competition occasioned by new stronger competitor entering the market.

3.6 Management Planning and Organization

3.6.1 Key Employees

Dorice Mazengo will be the Chief Executive Officer of the partnership. She is also the owner of the D&M Roski Ltd, with her partner Mika Karjalainen who has experience in marketing and business as well. He has been working in East Africa for a couple of years. His experience in business will be important to our company. The company will offer competitive wages and salaries to all key employees with benefit packages except the owners in the first two years of operation. This will help boost financial performance of the company.

3.6.2 Board of Directors

The company partnership will be functioned by the help of owners and three voluntary boards of directors. The board members are professionals and have experience in business to contribute to the company operations. Mrs. Nuru Mgomi (chairman of the board) is a member of local government council.

The board will form a close cooperation with Kinondoni municipal council, the local town strategic partnerships, the town police and the local government council. This will ensure that company gets a unique image in the town and get to attract many customers. The board of directors will be a great asset to the development of the company and partnership as well.

3.6.3 Management Structure and Style

Dorice Mazengo will be the chief operating officer (CEO), the general manager and secretary will report to her. The drivers and all the subordinates will report to their respective managers. The company Partnership will be owned by Dorice Mazengo. If possible, then there will be a chance of offering stock to government organizations and other companies when the company has expanded.

Organizational Structure of a company

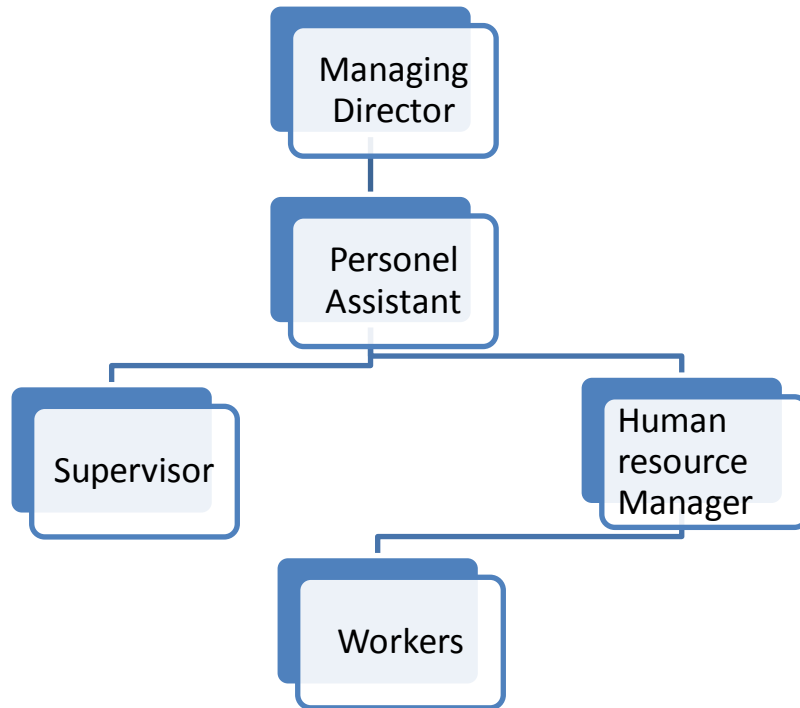


Figure 5. Organizational structure of the company.

1. Managing Director Duties

- Is responsible for overall managerial activities of the company
- Is the head of representative of the company
- Is responsible in insuring the security of the company and diligence of the business.
- Is also responsible in allocating company resources and governing the company.

2. Assistant Manager Duties

- To provide full personal assistance to a Managing director
- To divide the task, work and meet the schedule.
- To coordinate, supervise and follow up the instruction given by superior.
- To report all the operational activities to the director.

3. Human Resource Manager Duties

- Illegible in employment activities
- To approve the working condition of the workers

- To solve all the matters between employees and employer.
- Managing financial activities.

4. Supervisor Duties

- Supervising the work
- Writing daily report of the work
- Arranging the working equipment.
- Is in charge in collecting the cash from customers.
- Listing of existing and all new customers

5. Workers

- Every worker is responsible to his/her duties.

4 Implementation of services

4.1 Facilities and premises

The facilities will be purchased and the premises will be hired in the beginning to start up the business. The company will arrange the renting of office(s) and the storage. By hiring the premises, the fixed costs can be avoided. This will help the company to increase profit by putting the variable cost constant.

4.2 Equipment and machinery

The company planned to purchase all the required machinery and equipment when the fund is acquired. These include the trucks, sweeping truck etc. as mentioned in the requirement table, one vehicle can be used for supervision and transporting the necessary equipment where it will be needed.

4.3 Hiring of Contracts

The company planned to hire the contract from municipal councils and also from local government offices. These will be our permanent customers although we will hire other contracts from local markets, schools, colleges, bars and restaurants. Once the local government authority has been assigned to work with our company, will be able to have longer contract and provide the service to our customers.

4.4 Workforce

The company will comprise for workers, where two will be co-owners and one driver plus a bookkeeper. Then the company will hire two truck drivers that have maintenance work experience. But if needed temporary workers will be hired for just the moment help is needed, on a contract basis, depending on the duration of work to be done.

4.5 Sales and marketing

The sales and marketing personnel (Managing Director) will be taking care of all matters concerning sales and marketing, such as advertisement, negotiating with clients, pricing among others.

4.6 Accounting and financial control

Accounting is a delicate and sensitive issue in any organization that needs great deal of attention to keep the records of all financial activities within the organization. The accountant draws the budget for the company based on the collective agreement of the members of the organization. The company draws a yearly budget of what to do with the money earned from the company. One of the main aims is to plough the profit back to the company, which is better than sharing the profit among the members not until the business becomes financially sustainable and well established without much difficulty.

4.7 Development of the services

Advertisement seems to be a key for developing a new product or service in many businesses. Marketing proves to be the backbone of making a company together with its service widely known. Once the service is out in the market, there is a necessity to increase the demand of the clients. Having in mind that the customers need the best and reliable services, the company has plans to conduct surveys and to do more research to know and understand the customers' need. This will help the company improve its services in terms of quality, pricing and reliability.

4.8 Vision of the company 3-5 years in future

The vision of the company is to have it fully established, and being one of the leading solid waste collection company in Tanzania. In five years to come the company has intended to start a recycling plant which will base on biological waste (biowaste) recycling. Also by being able to establish this, then other plans might follow.

5 Risk assessment and Management

A review of the risks associated with the service delivery and starting up of our business is completed and summarized as follows.

5.1 Financial Risk

Financial risk assessment is quite important area in starting a business. To insure the risks that might be associated in allocating the fund and period that might take to accomplish the business. The company owner set the following strategies that will help preventing significant losses and unnecessary risk to occur.

- I. The company will open a cooperate bank account, that will be owned by the founders. The company will insure all the financial transaction to be made by the decision of both partners and must be under documentation.
- II. The company will use RCSA. This is a system where by the appointed staff will be listing all the possible risks and controls periodically. It will help the company recognizing and identifying the possible risk by the probability of occurrence. For example a) very likely to occur, b) some chance of occurrence, c) little chance to occur, d) very little chance to occur. At the end, the company will be able to manage or prevent the risk in accordance to its probability to occur.
- III. The company founders believes insurance is a principle safeguard in managing risks, although it's not assumed to be the best-case scenario. This can be proved through fraud or embezzlement where by employees handle money or perform accounting duties in accounts payable and receivable. Through this, insurance companies will insure that cash bond is underwritten to provide financial backup in the occurrence of theft, fraud or embezzlement.
- IV. As we all know IMT (Information Management Technology) software is the key function in monitoring and controlling financial trends and operations in the company.

5.2 Human Risk

In every company human risk is inevitable. For a company to succeed human work force is needed. There are several risks that might be caused by human being (personnel) as mentioned below:

- I. Risk of not coming to work due to sickness/illness
- II. Risk of not accepting overtime when the work is too much
- III. Risk of not taking precautions during working time
- IV. Risk of coming to work late
- V. Risk of being tempted to still company belongings
- VI. Risk of not workers meeting the productivity targets.

The fact is that most of risk involving human being is a problem and it is difficult to eliminate it. Such risks are for example sickness/illness, drugs use and alcoholism. The company set up the following strategies to overcome the risks;

The company planned to check up a personnel background and their work performance before hiring them. This can be done through previous work records that they will be asked to submit to a company during interviews.

For the risk of theft or fraud a system of double signature will be implemented. This can be done for all payable checks and invoices verification.

Finally, to prevent loss of productivity the company will train back up personnel that will cover up the position of workers who will be sick or out of the work for a certain period of time.

5.3 Operational risk

This will involve all risk that is caused by operation of the company and the set of services that company planned to engage in. As mentioned earlier, our customers will be residence of Kijitonyama ward, markets areas, schools, colleges and also the Dar es Salaam municipalities.

Among these groups of our potential customers, there will be contract and cash business that will take part. So there might be risk involved in the business as mentioned below due to lack of competition and corruption as well.

List of operational risk:

- I. Risk of monopoly pricing
- II. Risk of not meeting the targets(goals)
- III. Risk of poor service
- IV. Risk of delaying payment
- V. Risk of not accepting to pay
- VI. Risk of bad infrastructure

To mitigate these, the company has a plan to provide free trash bins to every customer in the beginning and later they have to buy. This will help the collection process to be easier and less time consuming.

The terms of contract should not be long they could be for example three to five years. This will prevent from being providing services which is worth or profitable. Instead there should be an opportunity to bid again in every year, so that the company will be able to set up new prices or changing operational activities to meet the company target.

Laws will be made for those who will refuse to pay for their services and will be delaying to pay too according to country's rules and policies. The company hopes that this will help minimizing the risk of loss and meeting the service standards.

6 Financial Projection

The financial plan will show the required start-up capital, balance sheet and five years cash flow of the company.

6.1 Start-up Capital

The company will need a sum of 200,862.00 Euros as a startup capital. The main cost objects are compactor truck, dump truck, supervision car (double Cubin) and skip containers.

Other expenses have been calculated based on current market value. The fund will be raised from the Finnish Government as aid. Below is the table showing the start up expenses.

Table 4: start-up capital

Require Start-up Fund	Amount(in euros)	Total	Depreciation
Fixed Assets			
Compactor truck	100000		25
Skip container	32500		3
Dump truck 18tone	40000		10
Double Cubin	10000		5
Office Funitures	500		3
Computer + Accessories	750		3
Others	1 000		
Total Fixed Assets	184 750	184 750	
Operating Capital			
Salary and benefits	2 500		
Insurance	2 017		
Rent	300		
Repair and maintanance	1 500		
Legal	500		
Advertisement	1 000		
Permits	2 000		
Energy and Utility	1 000		
Telephone	200		
Depreciation	1 245		
Employees uniform and safe gear	1 200		
Fuel	1 650		
Other	1 000	16 112	
Total operating cost	16 112		
Total Required Fund		200 862	

6.2 Cash flow in five years

The cash flow statement shows the company five years' cash inflow and outflow annually. If the cash flow is positive means the company will not run out of cash to meet its current cost.

Table 5: Cash flow in 5 years

	In TZS	In Euro Per month	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	166 875 000	66 750	801 000	802000	882 100	962 200	1 042 300
Cost of sale (Production cost)	(22 402 000)	(8 961)	(107 530)	107 530	109 670	111 810	113 950
Gross revenue	144 473 000	57 789	693 470	694 470	772 430	850 390	928 350
Other costs:							
Salary and benefits	4 466 000	1 786	21 437	21 437	23 577	25 717	27 857
Insurance	5 041 667	2 017	24 200	24 200	24 200	24 500	2 500
Rent	750 000	300	3 600	3 600	3 600	3 800	4 000
Repair and maintanance	3 750 000	1 500	18 000	18 000	18 500	19 000	19 500
Legal	1 250 000	500	500	500	500	600	600
Advertisement	2 500 000	1 000	12 000	12 000	12 000	12 500	12 800
Permits	5 000 000	2 000	2 000	2 000	2 000	2 500	2 500
Energy and Utility	2 500 000	1 000	12 000	12 500	13 000	13 500	14 000
Telephone	500 000	200	2 400	2 400	2 000	2 200	2 500
Depreciation	3 111 528	1 245	14 935	14 935	14 935	14 935	14 935
Employees uni- form and safe gear	3 000 000	1 200	2 400	2 400	2 600	2 800	3 000
Other	2 500 000	1 000	12 000	12 000	12 000	12 000	12 000
Profit before tax	110 103 806	44 042	567 998	568 498	643 518	716 338	812 158
Income tax 30%	33 031 142	13 212	170 399	170 549	193 055	214 901	243 647
Profit after tax	77 072 664	30 829	397 599	397 949	450 463	501 437	568 511

7 Conclusions

The main objective of this thesis is to create a business plan for a company which will be based on residential solid waste collection at Kijitonyama area in Dar es Salaam Tanzania.

The business plan was made by analyzing the local existing garbage collection business that existing at Kijitonyama and possible market in a specific chosen area and possible customers around. This plan was built up to establish a business that solves the problems facing existing companies that engaged into this business and to help the residence by providing good services at a reliable price. The author thinks it is a great opportunity to take the existing opportunity and provide solutions on it.

The study and interviews confirm that the MSWM business in Dar es Salaam face a lot of problems and challenges, for example lack of collection equipment, modern lack of recycling plants, insufficient knowledge in garbage handling, lack of good infrastructure in handling the business etc. The customers have been charged more compared to the quality of service they received. Still the city seems to be dirty and cause epidemic diseases especially during raining season. The conclusion was found to be useful and valid with the research and observation findings, Due to that the Roski's business plan can be a practical solution to customers and also be source of income to author.

The company is expected to be open in a year after receiving starting capital at Kijitonyama area. The author's plan in four to five years time is to start a recycling plant and expand the business. But all these can be possible only when the business operation is going to be as planned and reach the targets.

8 REFERENCES

A business plan, [Accessed 22.02.2013], Available from
http://www.inc.com/guides/write-a-great-business-plan_pagen_2.html

Business implementation. Accessed [12.4.2013]. Available from:
https://publications.theseus.fi/bitstream/handle/10024/46970/Mwania_James.pdf?sequence=1

Dar es Salaam municipalities map. [Accessed 26.2.2013]. Available from:
<http://coastalforests.tfcg.org/tz-dar-ns.html>

Dar es Salaam Metropolitan Development Projects 2011, *waste management proposal*, [Accessed 02.04.2013] Available from
http://siteresources.worldbank.org/INTUSWM/Resources/4636171202332338898/MSWM_Dar-es-Salaam.pdf

Finnish environment institute (2013) *Wastes and waste management*. [Accessed 16.3.2013]. Available from:
<http://www.ymparisto.fi/default.asp?node=6044&lan=en>

Finnish environment institute (2013) *Wastes*. [Accessed 12.03.2013] Available from:
<http://www.ymparisto.fi/default.asp?contentid=37856&lan=en>

Finnish environment institute (2013) *Waste management for businesses*. [Accessed 16.3.2013]. Available from:
<http://www.ymparisto.fi/default.asp?contentid=176215&lan=en>

Finnish environment institute (2013) *Producer responsibility in waste management*. [Accessed 16.3.2013] Available from:
<http://www.ymparisto.fi/default.asp?contentid=188660&lan=en>

Finnish environment institute (2013) *Municipal wastes*. [Accessed 16/3/2013] Available from: <http://www.ymparisto.fi/default.asp?node=18451&lan=en>

Finnish environment institute (2013). *Collection and transport of waste within Finland*. [Accessed 17/3/2013] Available from:
<http://www.ymparisto.fi/default.asp?contentid=216783&lan=EN>

Juma Uloleulole, Local government councilor 28.03.2013

Lusaga, Kironde. 1999. *Managing the monster: Dar es Salaam, Tanzania. Governance and waste management in Africa*.

Legal waste analysis in Europe. [Accessed 23.4.2013] Available from:
http://www.justiceandenvironment.org/_files/file/2012/Waste%20legal%20analysis%202012.pdf

Solid waste management in Temeke Municipality. [Accessed 20.2.2013]. Available from: <http://www.tmc.go.tz/wastemanagement.pdf>

Solid waste management in Dar es Salaam. [Accessed 16.3.2013]. Available from:
(http://siteresources.worldbank.org/INTUSWM/Resources/463617-1202332338898/MSWM_Dar-es-Salaam.pdf)

SWOT Analysis. [Accessed 17.4.2013]. Available from:
<https://publications.theseus.fi/bitstream/handle/10024/45937/Thesis%20final.pdf?sequence=1>

Tanzania fact book. [Accessed 17.2.2013] Available from:
<https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html>

Waste management terminologies. [Accessed 16.5.2013]. Available from:
<http://www.gibraltarlaws.gov.gi/articles/2011=052.pdf>

Interview questions.

Name of interviewee: Nuru Omary Mgomi

Local government council chairperson

Date: 25/03/2013

1. How do you dispose waste from your ward?

.....

2. Which method do you use to dispose the waste?

.....

3. Why is the method chosen applicable?

.....

4. How many companies/organizations that are engaged in waste collection services?

.....

5. How many tones of waste are generated in this ward per day?

.....

6. How many times is the waste being collected in a week?

.....

7. How much are they charging per house?

.....

8. How the municipalities are manages waste in your ward?

.....

9. Are you satisfied with the service the organization is providing?

.....

10. Do you think there is enough knowledge provided by Kinondoni municipality on waste management issues to the community?

.....

11. Do you think there is need for more companies to engage into this business?

.....

12. What advice can you give to new waste collection investors?

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