WASTE MANAGEMENT INC.

(NYSE: WMI)

STRATEGIC CASE ANALYSIS

WASTE MANAGEMENT, INC.
Strategic Analysis

Waste Management (NYSE: WMI)

SUBMITTED TO:

Dr. Jifu Wang
Seminar in Strategic Management
MGT 6359
Spring 2006

BY: **Kazim Demir, Anthony Ikhimokpa, Dung Nguyen,**

Jackie Tauriello & Christina Van Zandt

TABLE OF CONTENTS

Section **Page**

EXECUTIVE SUMMARY **1**

1. COMPANY HISTORY **2**

1.1 BACKGROUD 2
1.2 PURPOSE OF THE STUDY 2

2. EXTERNAL ANALYSIS **3**

2.1 GENERAL ENVIRONMENTAL ANALYSIS 3
2.1.1 Demographic Segment *3*
2.1.2 Economic Segment *6*
2.1.3 Political/Legal Segment *8*
2.1.4 Socio-cultural Segment *11*
2.1.5 Technological Segment *12*
2.1.6 Global Segment *13*
2.1.7 Summary of General Environment Analysis *15*
2.2 DRIVING FORCES 16
2.3 INDUSTRY ANALYSIS 18
2.3.1 Description of Industry *18*
2.3.2 Industry Operation *18*
2.3.3 Industry Dominant Economic Features *19*
2.3.4 Market Growth Rate & Industry Life Cycle *21*
2.3.5 Industry Trends *22*
2.4 FIVE FORCES COMPETITIVE ANALYSIS 23
2.4.1 Barriers to Entry *24*
2.4.2 Product Substitutes *25*
2.4.3 Bargaining Power of Buyers *26*
2.4.4 Bargaining Power of Suppliers *26*
2.4.5 Competitive Rivalry *27*
2.5 SUMMARY OF INDUSTRY ANALYSIS 28
2.6 COMPETITIVE ANALYSIS 28
2.6.1 Industry Competitors *29*
2.6.2 Rivals Anticipated Strategic Moves *30*
2.6.3 Summary of Competitive Analysis *31*
2.7 KEY SUCCESS FACTORS 31

3. INTERNAL ANALYSIS **32**

3.1 ORGANIZATIONAL ANALYSIS 32
3.1.1 Corporate Vision *33*
3.1.2 Corporate Mission *33*
3.1.3 Products and Services *34*
3.1.4 Leadership *37*
3.1.5 Organizational Culture *40*

3.1.6 *Structure* 42
3.1.7 *Summary of Organizational Analysis* 42
3.2 ANALYSIS OF FIRM'S RESOURCES 43
3.2.1 *Tangible Resources* 43
3.2.2 *Intangible Resources* 47
3.2.3 *Capabilities* 49
3.2.4 *Core Competencies and Sustainable Advantages* 50
3.2.5 *Summary of Firm's Resources:* 53
3.3 ANALYSIS OF OBJECTIVES 53
3.3.1 *Short-Term Objectives* 53
3.3.2 *Long-Term Objectives* 54
3.3.3 *Financial Objectives* 55
3.4 FINANCIAL ANALYSIS 55
3.4.1 *Operating Groups Financial Performance* 55
3.4.2 *Growth Analysis* 58
3.4.3 *Profit Margin Analysis* 60
3.4.4 *Financial Condition Analysis* 63
3.4.5 *Investment Return Analysis* 66
3.4.6 *Management Efficiency Analysis* 70
3.4.7 *Stock Price Analysis* 70
3.4.8 *Summary of Financial Analysis* 78
3.5 STRATEGIC ANALYSIS 79
3.5.1 *Corporate-Level Strategy and International Strategy* 79
3.5.2 *Business-Level Strategy* 80
3.5.3 *Value Chain Analysis* 80
3.5.4 *Summary of Strategic Analysis* 85
3.6 SWOT ANALYSIS 85
3.6.1 *Strengths – Internal* 85
3.6.2 *Weakness – Internal* 87
3.6.3 *Opportunities – External* 87
3.6.4 *Threats – External* 89

4. CURRENT STRATEGIC AND ALTERNATIVES 92

4.1 CURRENT STRATEGY AND STRATEGIC FIT 92
4.2 ALTERNATIVES 92
4.3 RECOMMENDATIONS 93
4.3.1 *Recommendation # 1: Fully Applying Bio-diesel as Fuel Alternative* 94
4.3.2 *Recommendation # 2 – Capital Expansion in Waste-to-Energy* 101

5. CONCLUSION 113

6. REFERENCES 114

7. APPENDICES 119

TABLE OF FIGURES

FIGURE 2-1: THE CHANGING WORLD POPULATION AROUND THE GLOBE: 1950-2050 4
FIGURE 2-2: QUARTER-TO-QUARTER GROWTH IN REAL GDP 6
FIGURE 2-3: GLOBAL ENVIRONMENT SERVICES MARKET SEGMENTATION IN 2003 20
TABLE-2-4: GLOBAL ENVIRONMENTAL SERVICES MARKET SEGMENTATION BY REGION 20
FIGURE 2-5: GLOBAL ENVIRONMENTAL SERVICES MARKET SEGMENTATION BY REGION 21
FIGURE 2-6: GLOBAL ENVIRONMENTAL SERVICES MARKET VALUE FORECAST 2003-2008 23
FIGURE 2-7: PORTER'S FIVE FORCES MODEL 25
FIGURE 3-1: WMI GROWTH ANALYSIS 59
FIGURE 3-2: 5 YEAR AVERAGE GROWTH COMPARISON 60
FIGURE 3-3: 5-YEAR AVERAGE PROFITABILITY COMPARISON 62
FIGURE 3-4: GROWTH ANALYSIS 62
FIGURE 3-5: WMI PROFITABILITY ANALYSIS 66
FIGURE 3-6: 5-YEAR AVERAGE PROFITABILITY COMPARISON 67
FIGURE 3-7: WMI SENSITIVITY ANALYSIS 78
FIGURE 3-8: FIRM VALUE CHAIN 81

TABLE OF TABLES

TABLE 2-1: GROSS OUTPUT BY INDUSTRY 7
TABLE 2-2: GLOBAL ENVIRONMENT SERVICES MARKET SEGMENTATION IN 2000 19
TABLE 2-3: GLOBAL ENVIRONMENTAL SERVICES MARKET VALUE FORECAST 2003-2008 22
TABLE 3-1: WASTE MANAGEMENT EXECUTIVES 39
TABLE 3-2: PHYSICAL RESOURCES 45
TABLE 3-3: WASTE MANAGEMENT HOLDINGS & PHYSICAL OPERATIONS 46
TABLE 3-4: FINANCIAL PERFORMANCE (OPERATING INCOME) 56
TABLE 3-5: WMI GROWTH ANALYSIS 59
TABLE 3-6: WMI PROFIT MARGIN ANALYSIS 61
TABLE 3-7: LIQUIDITY ANALYSIS 64
TABLE 3-8: WMI SOLVENCY RATIOS 65
TABLE 3-9: WMI PROFITABILITY RATIOS 66
TABLE 3-10: ECONOMIC VALUE ANALYSIS 67
TABLE 3-11: MARKET VALUE ANALYSIS 68
TABLE 3-12: VALUE DRIVERS 69
TABLE 3-13: WMI MANAGEMENT EFFICIENCY TABLE 70
TABLE 3-14: WMI'S STOCK PRICE ANALYSIS 71
TABLE 3-15: DIVIDEND HISTORY 72
TABLE 3-16: INDUSTRY ANALYSIS 72
TABLE 3-17: DIRECT COMPETITOR ANALYSIS 73
TABLE 3-18 STOW MATRIX 91

EXECUTIVE SUMMARY

Waste Management, Inc.'s unique blend of core competencies and capabilities has served them well within the waste management industry. This analysis will fully investigate the ability of Waste Management, Inc. to exploit growth opportunities in a slow growing, but expanding industry.

Key Points:

- Driving forces which affect the external environment in which waste management companies, such as Waste Management, Inc., operate in are: regulatory influences and government policy changes, fuel prices, and new technology that would reduce significantly needed landfills.
- Key success factors which influence the market and fashion successful companies include the following: rights to acquire and possession of landfills, the ability to control operation costs, and the human factor within the firms.

Current Strategy

- Waste Management Inc.'s current strategy is to achieve operational excellence in order to be successful for their stockholders.

Recommendations:

Two proposed recommendations for future growth are: to convert fleet to use alternative fuel sources and expand and grow the Waste-to-Energy sector.

1. COMPANY HISTORY

1.1 BACKGROUD

Waste Management Inc. (NYSE: WMI) provides integrated waste management services throughout the US, Puerto Rico and Canada. The company serves municipal, commercial, industrial and residential customers; providing collection, transfer, recycling, resource recovery and disposal services. Waste Management is headquartered in Houston, Texas, and the company's network of operations includes 429 collection operations, 366 transfer stations, 289 active landfill disposal sites, 17 waste-to-energy plants, 138 recycling plants and 85 beneficial-use landfill gas projects. For the fiscal year ended December 2004, the company generated revenues of $12,516 million, an 8.1 percent sales growth from the previous year. Net income for this year was reported at $939 million.

1.2 PURPOSE OF THE STUDY

The purpose of this analysis is to develop specific, actionable recommendations based upon an in-depth strategic analysis of the firm, Waste Management Inc. We will examine the company’s mission, vision, strategies, and culture, which, based upon our internal and external analysis, have proven to be successful providers of competitive advantage. In our first section, Waste Management’s external and internal environments will be examined. Next, the Company’s financial performance will be measured against the industry standards. The Company will be evaluated on previous criteria, current strategy analysis, and predicted industry trends to access the effectiveness of their

current strategy. Based upon Waste Management's current strategic fit and positioning, alternatives and recommendations will be made.

2. EXTERNAL ANALYSIS

Analyses of external environments provide WM Inc. with the information required to develop its strategic intent and strategic mission. Strategic intent and strategic mission influence strategy formulation and implementation actions. External environment affects firm growth and profitability. Major political events such as the war in Iraq, the strength of separate nations' economies at different times, and the emergence of new technologies are a few examples of conditions in the external environment that affect Waste Management, Inc. External environmental conditions such as these create threats to and opportunities for Waste Management that has major effects on its strategic actions.

2.1 GENERAL ENVIRONMENTAL ANALYSIS

The general environments are fundamentals in society that impact the industry of which a firm operates. Firms cannot control the general environmental segments directly, they have to understand their implication to the industry they operate in and employ the appropriate strategies to compete effectively.

2.1.1 Demographic Segment

The demographic segment directly impacts the Waste Management industry because it gives some indications where growth will occur and what ethnic mix and income distribution it will reflect.

Population Size:

The world population is increasing at a significant rate. The current population of the world stands more than 6 billion and it is estimated to be more than 7.9 billion by 2025, and in 2050, there will be around 9 billion people in the world. On the other hand, the population of world will increase by 45 percent from current population. (US Census, 2005, See Figure I) China and India will be the most populous countries in 2010 and their total population will be 2.5 billion in 2010 (US Census, 2005).

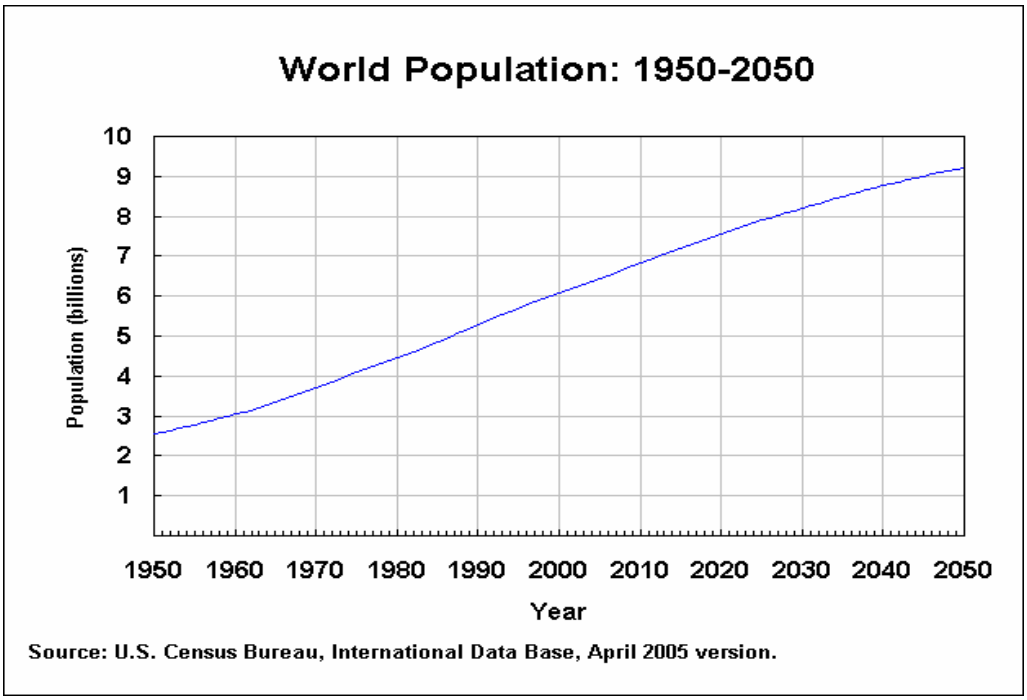


Figure 2-1: The Changing World Population Around the Globe: 1950-2050

Source: US Census Bureau website retrieved 02/18/05 from http://www.census.gov/ipc/www/img/worldpop.gif

Worries about a "population bomb" may have lessened as fertility rates have fallen, but the world's population is projected to continue expanding until the middle of the century. Just when it stabilizes and thus the level at which it stabilizes will have a

powerful effect on living standards and the global environment. As population size continues to reach levels never before experienced and per capita consumption and waste rises.

Age Structure:

Fertility in the USA was assumed to remain almost constant, near the current fertility level of about 2.1 births per woman. For the low and high assumptions, levels of 1.9 and 2.6 births per woman were used, respectively. (US Census, 2005) Life expectancy is projected in the middle series to increase from 76.0 years in 1993 to 82.6 years in 2050. In 2050, life expectancy in the low assumption would be 75.3 years and in the high assumption would be 87.5 years. (US Census, 2005) The global average age appears to be increasing. The population aged 65 or older is projected to increase by 88 percent. Contributing to this growth is the increasing life expectancies around the world. This trend suggests numerous opportunities for WMI to develop residential waste services to meet the needs of an increasingly older population. Also, WMI can imply lower price (price discrimination) for elderly people and can increase socio-culture relationship with the elderly people as well.

Ethic Mix:

According to the US Census, by the turn of the century, the non-Hispanic white proportion of the population is projected to decrease to less than 72 percent with about 13 percent black; 11 percent Hispanic origin; 4 percent Asian and Pacific Islander; and less than 1 percent American Indian, Eskimo, and Aleut. By 2050, the proportional share shifts quite dramatically. Less than 53 percent would be non-Hispanic white; 16 percent would be black; 23 percent would be Hispanic origin; 10 percent would be Asian

and Pacific Islander; and about 1 percent would be American Indian, Eskimo, and Aleut. The US population continues to diversify from different countries. Ethic mix will not affect the rising waste as much as population size will. It may generate different kind of waste.

2.1.2 Economic Segment

Economy:

All of the nations are impacted by external economic factors in the global economy. The USA is a super power in the world and when the USA has a recession, other countries feel it. For instance, in 2001, the USA economy suffered and the interest rate was the lowest in half century. Accordingly, this has led to economic growth in the last four years (see Figure 2).

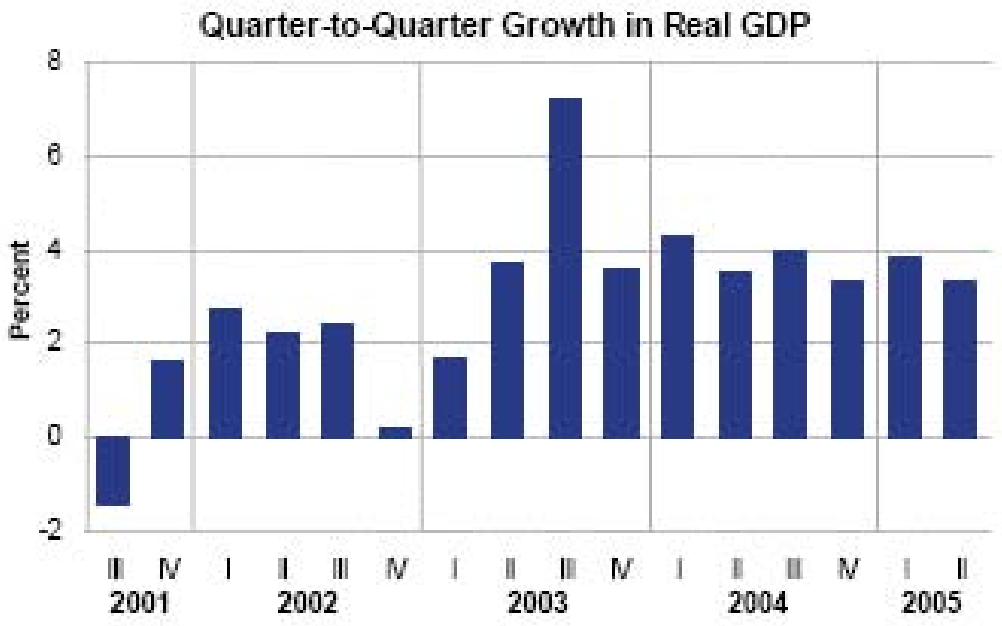


Figure 2-2: Quarter-to-Quarter Growth in Real GDP

Source: Bureau of Economic Analysis, US Department of Commerce

Gross Output by Industry has also seen positive output in same period (See Figure 3). Before 2005 hurricanes, industry grosses output was 59.6 billion dollars.

Gross Output by Industry [Billions of dollars] Release date: December 15, 2005							
Line		**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
1	**All industries**	16,908.0	18,186.5	18,403.2	18,788.4	19,732.1	21,346.0
2	**Private industries**	15,124.3	16,287.7	16,384.1	16,632.9	17,424.5	18,895.2
64	**Management of companies and enterprises**	276.5	300.6	290.4	290.7	305.2	342.4
65	**Administrative and waste management services**	436.9	476.4	481.0	495.4	517.4	551.7
66	**Administrative and support services**	387.9	425.6	429.7	443.3	462.0	492.2
67	**Waste management and remediation services**	49.0	50.8	51.3	52.1	55.4	59.6

Table 2-1: Gross Output by Industry

Source: Bureau of Economic Analysis, US Department of Commerce http://www.bea.gov/bea/industry/gpotables/gpo_action.cfm

US interest rates continue to rise. The deficit in 2005/2006 will widen as government spending remains strong and the pace of economic growth continues to slow. The clean-up and rebuilding costs related to Hurricane Katrina will also be added to the budget. The latest interest rate rise on November 1st placed the Federal funds target rate at 4 percent. The Federal Reserve (central bank) still considers monetary policy accommodative, and has indicated that rates will rise further at a measured pace. Fed funds target rate will continue to rise steadily and reach 5 percent by mid-2006, as a more neutral monetary policy stance is pursued.

There has been a steep climb of oil prices, especially in 2005. Previous assumptions were the long term equilibrium price of oil was approximately $20 per barrel. Today it is believed to be at equilibrium with a price of $28 (Franssen, 2004). In 2005, the going price for a barrel of crude oil was trading at nearly $70 per barrel. This has the potential to put the US in a serious recession that will impact the world economy. However, the higher oil prices can have a stabilizing effect, in which it will help lower the demand, thus, lowering prices.

Economic development coupled with ecological health was first termed 'sustainability' in the late 1970s. The terms 'sustainability' and 'sustainable development' were used by the United Nations' World Commission on Environment and Development in their report "Our Common Future" in 1987. (http://www.ga.wa.gov/EAS/CWM) Since that time, the ideas have worked down from a world-wide platform to the practical applications in the local economy.

Waste Management is a part of a growing movement toward a sustainable world. Sustainability or "green" management techniques are designed to protect the environment, save resources, and conserve energy. The utilization of Waste Management techniques which rely on salvage, recycle, and reuse of materials, have proven to have economic advantages for the waste management industry.

2.1.3 Political/Legal Segment

The waste management industry is complex because it involves a multitude of scientific, technical, economic and social factors. Due to the complexity of the situation,

it will require the cooperation of government, industry, and individuals working as partners rather than adversaries to find a long-term solution.

Even though solid waste management has not been a high priority of the federal government in recent years, the government could affect waste management in a number of ways: by establishing national recycling goals and packaging standards, adopting a clearly stated policy on source reduction, and implementing educational programs on all approaches to waste minimization. The federal government could also set an example for the states and stimulate markets for recycled products by requiring government purchase of products containing recycled materials.

The U.S. is currently recycling only 10 percent of its waste (Census, 2005). The benefits of recycling come not only from the sale of recycled materials and conservation of resources, but also as a result of reducing expenses or from "avoiding costs." The savings derived from not paying tipping fees for land filling or incinerating the materials which are recycled should be included in any cost/benefit analysis of recycling. The cost of extending the life of a current landfill or of closing an old landfill and developing a new one must also be taken into account.

Regulations:

The major component of waste management is the collection and disposal of solid waste in an environmentally sound manner, a significant amount of our capital expenditures is related, either directly or indirectly, to environmental protection measures, including compliance with federal, state or provincial, and local provisions that regulate the discharge of materials into the environment.

The waste management business is subject to extensive and evolving federal, state or provincial, and local environmental, health, safety and transportation laws and regulations. These laws and regulations are administered by the Environmental Protection Agency (""EPA") and various other federal, state and local environmental, zoning, transportation, land use, health, and safety agencies in the United States and various agencies in Canada. Many of these agencies regularly examine our operations to monitor compliance with these laws and regulations and have the power to enforce compliance, obtain injunctions or impose civil or criminal penalties in case of violations (http://www.epa.gov).

The primary United States federal statutes affecting waste management business are summarized below:

The Resource Conservation and Recovery Act of 1976, as amended (""RCRA"), regulates handling, transporting and disposing of hazardous and non-hazardous wastes and delegates authority to states to develop programs to ensure the safe disposal of solid wastes. (http://www.epa.gov/rcraonline)

The Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), which is also known as Superfund, provides for federal authority to respond directly to releases or threatened releases of hazardous substances into the environment. CERCLA's primary means for addressing such releases is to impose liability for cleanup of disposal sites upon current and former site owners and operators, generators of the hazardous substances at the site and transporters who selected the disposal site and transported substances thereto. (http://www.epa.gov/Region5/defs/html/cercla.htm)

The Federal Water Pollution Control Act of 1972 (the ""Clean Water Act") regulates the discharge of pollutants into streams, rivers, groundwater, or other surface waters from a variety of sources, including solid waste disposal sites. (http://www.epa.gov/r5water/cwa.htm)

Nearly everything we do leaves behind some kind of waste. Households create ordinary garbage. Industrial and manufacturing processes create solid and hazardous waste .Waste management regulations affect both waste management companies and us as a consumer. Especially in developed economies, there are new policies and laws being created regarding solid waste management, including incentives for recycling, and controls on land filling and incineration.

2.1.4 Socio-cultural Segment

Society shapes our beliefs, values, and norms. People absorb, almost unconsciously, a worldview that defines their relationship to themselves, others, organizations, society, nature, and the universe. Other cultural characteristics of interest to marketers include the persistence of core cultural values, the existence of subcultures, and shifts of values through time.

Some industrial activity will inevitably damage the natural environment. However, because about 42 percent of U.S. citizens are willing to pay higher prices for "green" products, there is a large market for pollution-control solutions such as scrubbers, recycling centers, and landfill systems.

2.1.5 Technological Segment

In general, technological development in the waste management industry can be characterized as a continuous improvement process (i.e., more evolution than revolution). For the most part, companies are using and modifying existing and proven technologies to manage waste streams in a more energy efficient and cost-effective manner.

There have also been new and innovative waste management technologies and products developed and commercialized for specialized applications. Some examples are as follows:

- In the plastics sector, the University of Western Ontario has developed an electrostatic plastic separation technology. The separation process relies on the principle of electrostatic charge transfer to sort different plastic materials.

- In the rubber sector, Recovery Technologies Inc. has developed a cryogenic technology that uses higher temperatures, reducing the energy expended in cooling the chemicals involved.

- In the hazardous waste sector, Eli Eco Logic International Inc. has developed a gas-phase chemical reduction reaction as an alternative to traditional incineration technology to manage a variety of organic hazardous waste streams such as PCBs, pesticides and dioxins.

- The waste generator industry is more conscious of environmental issues and is more willing to consider different approaches, provided they do not result in increased costs.

Technology affects not only the waste management industry, but many other industries as well. Recent developments in waste management technology are providing new ways to clean up industrial wastes and yielding efficient new production methods that are less polluting than traditional processes. Waste management technology can even help convert industrial and other wastes into useful products. All of these technological changes create new business opportunities for WM. While they use these technologies, they need to work with the EPA co-operatively because the EPA may not approve all of the technology for the waste management industry. Also, markets for waste treatment plants, equipment and instruments are becoming uniform in the global arena. It will boost international cooperation in the development of products and services utilizing the new technology. The program is an excellent opportunity for WMI.

2.1.6 Global Segment

The scope of this segment does not allow for detailed examination of individual country market opportunities. However, the following section provides an overview of market characteristics of selected regions. In order to provide a reasonable level of focus, the information is concentrated on emerging markets and the United States and Asia.

Asian markets hold very good longer term potential for waste management companies in most areas of solid and hazardous waste management. The Asian market for solid and hazardous waste management was estimated at approximately $3.0 Billion (US) in 1995 by EBI.

Demand is driven by an increasing awareness of environmental concerns, coupled with a high level of environmental focus by international financial institutions (IFIs) and non-governmental aid organizations (NGOs) who direct a very large amount of effort to this region. Most internationally funded investment projects now mandate that proper environmental studies and controls are in place.

The recent decline in the Asian economy has had an impact on the potential market for services in the near to middle term. The impact will be felt most strongly on product sales and services to the private sector, which require hard currency or local financing.

For this reason Asian markets, particularly those in countries most affected by the economic setbacks such as Thailand, Korea, Malaysia, and Indonesia, may not be as attractive in the short term. However, the need for waste management will not disappear and service will be required at some point.

Latin America is emerging as a region of very high opportunity for waste management companies, due to the following factors:

❶ Increased environmental regulation

❷ Increased environmental awareness

❸ Environmental projects tied to funding sources

❹ Increased economic stability

Competition throughout Latin America comes from domestic suppliers (who also are partnership opportunities) and U.S. and European countries. The U.S. has close ties and an established presence in many countries, and European countries often have an advantage through exploiting opportunities for their countries to work on projects funded by the home governments.

Eastern Europe is beginning to address the vast industrial waste problems created over the past several decades. Many countries have initiated plans or put in to place regulation to address these issues. However, in most countries enforcement and compliance have been less than ideal.

There is a very large potential market, but the western Europeans are very well-entrenched as competition. Countries in this region also may be motivated by the desire for closer ties to the EU and chose to work with Western European firms.

2.1.7 Summary of General Environment Analysis

The biggest economic driver for waste management industry is the oil prices since WMI operations are dependent on oil. During 2006, there has been a dramatic increase in the price of oil and natural gas. Oil price increases constantly because of international political issues, such as the Iraq war. Today, the world faces and discusses the Iran nuclear program. Also, there is a great deal of speculation as to what is driving the higher oil prices. The most accepted is the high demand from rapidly growing

economies like China. This is compounded by destabilizing activities found in Iraq, Venezuela, Iran, and Nigeria. WMI will try to find alternative fuels (Biodiesel, electricity, Hybrid, etc.) for its operating necessities.

The world population has been increasing dramatically so the consumption and waste per capita is expected to increase. Waste management will find great business opportunities by using new technology. Improvement in technology brings new business ideas, more comfortable devices, and greener Global.

Since waste management is critical for mankind, the industry is regulated and protected by stiff regulations by governments. This industry has to be careful when they enter into a new business area or imply new technology into current plants or landfills.

2.2 DRIVING FORCES

The environmental services industry is exposed to several primarily external environment keys that shape the competitive conditions. These driving forces include government/legal, economic, and technology segments. These driving forces will be major challenges for firms competing in this industry and they will force firms to respond by changing their strategies in order survive or by gaining advantages. The following are driving forces that impact the environmental services industry directly.

The utmost driving force is regulatory influences and government policy changes. The industry faces stiff federal, state, and local regulations concerning solid waste landfills and pollution. EPA is the federal agency that has authority to control hazardous and non-hazardous waste from generation, transportation, treatment, storage, and

disposal. For example, House Bill 592 specified the new landfill standard and sitting and design criteria as well as the closure of landfills. Firms operating in the industry must comply with the strict regulation by upgrading the landfills to new standards, selectively choosing landfills' locations and following all new criteria to construct new landfills and procedures to dispose solid waste. These regulations, depending on how often they are changed, would effectively both not only limit available landfills to competing firms but also make it difficult to possess right to the landfills.

It is worth to mention that landfills are must-have resource that firms need and that gaining right to access landfills is vital to firms in this industry.

Oil prices in the past few years have surged dramatically and this makes business communities nervous. The environmental service firms are especially not an exception. Each service truck on average consumes 20,000 gallons of gasoline/year each way. With the average of one-thousand 'collecting' trucks, an environmental service firm may spend hundreds of thousands of dollars in fuel. Therefore, a continuous increase in oil prices would pose a difficult challenge to the firms in effort to keep operational cost down.

Technology in the electronic industry changes at a high rate and new products flood the markets within months. The environmental service industry, however, witnesses a slow change, but is very important in technology. One of the examples is a new technology that converts waste-to-energy. This technology would eventually reduce significantly needed landfills, a large problem that any firm faces, and thus also cuts down expenses needed to maintain landfills from pollution. Besides, bio-gas products

coming from the process can be used as a fuel alternative, thus making it marketable. Mastering new technology thus plays a vital role in this industry.

2.3 INDUSTRY ANALYSIS

This section of the study will describe the nature of the environmental services industry and the market within the US and the world. It will also discuss the trend of the markets in the future.

2.3.1 Description of Industry

The environmental industry generally offers environmental equipment and resources and services to the residential and business customers. Waste Management operates in areas of environmental services, which include analysis, wastewater, solid waste management, hazardous waste management, remediation services and environmental consulting and engineering.

2.3.2 Industry Operation

Collection: Firms that operate in this industry provide solid waste collection services to customers in North America from single residential to large national businesses. Collection truck fleet is responsible for collecting waste from customers' sites.

Transfer: A supporting network of transfer stations will transport waste collected to firms' landfills using long-haul trailers, barge containers and rail cars.

Disposal: Regulated by the federal government, the disposal phase is very important and impacts both safety and our environment. At landfills, organic waste is

processed to decomposition of organic waste. New technology, such as bio-reactor technology, which accelerates the decomposition of organic waste through the controlled introduction of air and liquids into waste mass at the landfills, is an example.

Recycling: The environmental services industry also offers a recycling program for municipalities, businesses, and households across the US and Canada.

Waste-to-Energy: At some facilities, solid waste is turned into fuel for the generation of electrical power.

2.3.3 Industry Dominant Economic Features

Market Size: As of 2003, the global environmental services were valued at $265.8 billion. The biggest sector of the market is solid waste management, which accounts for 37.2 percent of the market. Waste water accounts for 28 percent, while consulting and engineering make up 16 percent. (DATAMONITOR, 2004)

Category	% Share
Solid Waste Management	37.2%
Wastewater Treatment	28.4%
Consulting & Engineer	16.6%
Remediation & Industrial Services	9.7%
Hazardous Waste Management	6.8%
Analytical Services	1.4%
Total:	100.0%

Table 2-2: Global Environment Services Market Segmentation in 2000

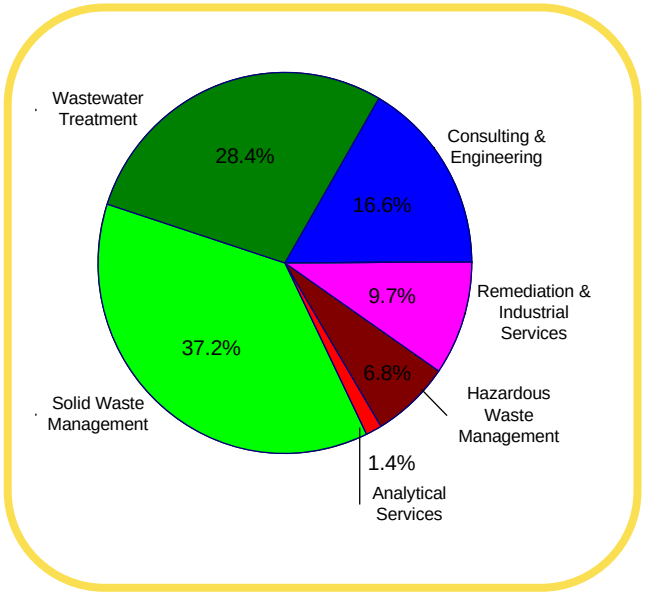


Figure 2-3: Global Environment Services Market Segmentation in 2003

(Source: Datamonitor, May 2004)

The US is the largest market for the environmental services, accounting for 40.5 percent or $107 billion, followed by Europe with 31.3 percent of the market value in 2003. Asia-Pacific generates about 22.2 percent. (DATAMONITOR, 2004).

Regional	% Share
The US	40.5%
The Europe	31.3%
Asia-Pacific	22.2%
Rest of the World	6.0%
Total:	100%

Table-2-4: Global Environmental Services Market Segmentation by Region

(Source: Datamonitor, May 2004)

This data suggests that the US market is still very important and significant for major players in the US and that the solid waste segment is still attracted to them.

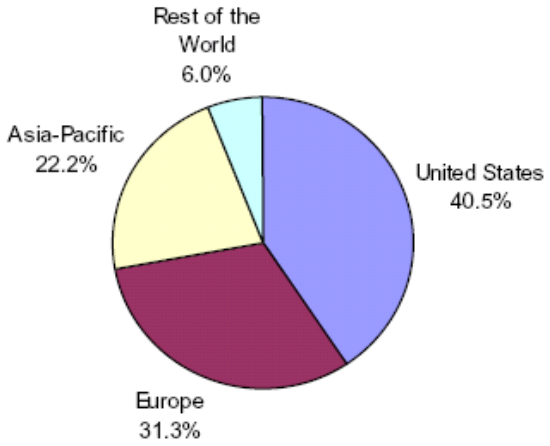


Figure 2-5: Global Environmental Services Market Segmentation by Region

(Source: Datamonitor, May 2004)

2.3.4 Market Growth Rate & Industry Life Cycle

Strong indications suggest that the environmental services industry is at mature phase in its life cycle. The market was not impacted by the economic downturn in 2001-2002; however, it experiences slow growth in some large markets in North America and Western Europe. The market has expanded at the growth rate of 3.3 percent since 1999, due to the rapid development of Asia-Pacific, East Europe and Latin America markets. (DATAMONITOR, 2004)

2.3.5 Industry Trends

With the global population reaching 6 billion and rising, the volume of waste created will also continue to rise. Solid waste management, currently accounting for 37.2 percent of the market value, is still a key to the industry's growth. It is forecasted that the global environmental services market will achieve a value of $295 billion by 2008, at a growth rate of 2.1 percent in the period 2003-2008. (DATAMONITOR, 2004)

Year	$ Billion	% Growth
2003	265.8	2.8%
2004	272.6	2.6%
2005	279.1	2.4%
2006	284.9	2.1%
2007	290.2	1.9%
2008	294.9	1.6%

Table 2-3: Global Environmental Services Market Value Forecast 2003-2008

(Source: Datamonitor, May 2004)

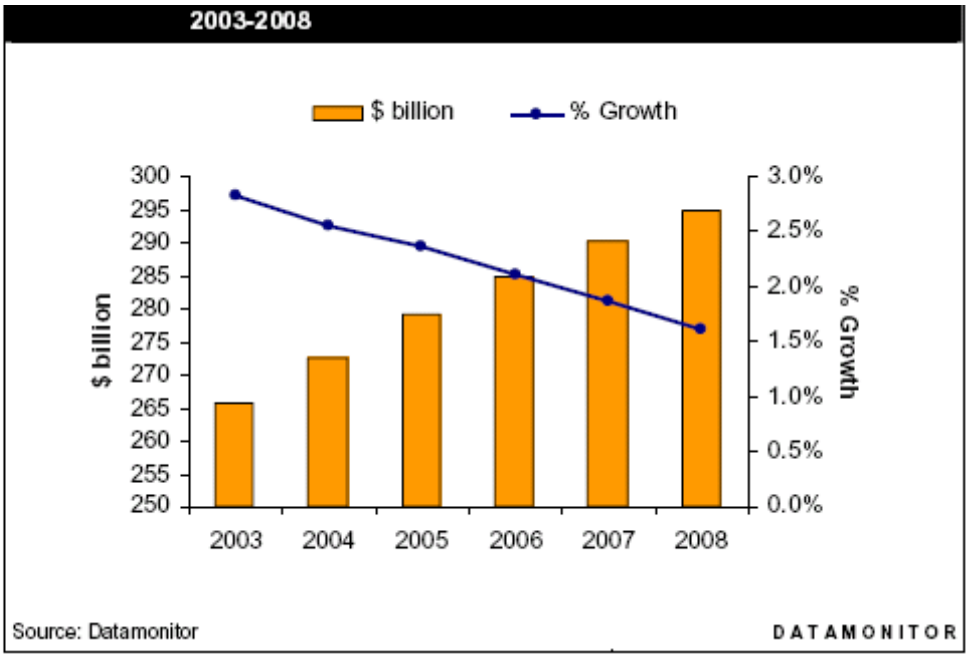


Figure 2-6: Global Environmental Services Market Value Forecast 2003-2008

(Source: Datamonitor, May 2004)

The large US and the European markets will continue to face mature and slow growth while the Asian-Pacific, Latin America, and Eastern Europe markets are predicted to generate much of the growth rate.

2.4 FIVE FORCES COMPETITIVE ANALYSIS

Using Michael Porter's Five Forces framework, Waste Management can better analyze their strategic competitiveness. The five forces include the barriers to entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products, and the intensity of rivalry among competitors. Historically, firms concentrated on

analyzing firms within their industry group and who they compete directly. However, a more broad analysis can identify potential competitors and customers (Hitt et al, 2005).

2.4.1 Barriers to Entry

HIGH: Explicit barriers to new entries on environmental services industry are high. The industry depends heavily on the commercial presence mode of services. This would limit a firm's ability to establish a commercial presence and to employ a national image for these services. The environmental service industry requires tremendous investment from the new entry.

Firms operating in this industry need to possess a large supporting network of transfer stations. These will transport waste collected to firms' landfills using long-haul trailers, barge containers and rail cars. Besides, new firms have to obtain the right to specific assets such as ownership of landfills and sewage system to dispose waste.

Stiff federal regulations and restrictions limiting the use of land for landfills and forcing firms to operate within established guideline impact significantly on the new entry.

The environmental service is an intensive labor industry. It is affected by limitation on the movement of human labor between regions and countries internationally. Globally, nationality requirements prevent firms from hiring inexpensive labor from foreign countries.

Some foreign firms may face discrimination from host countries. High taxation and subsidization are some of the keys for such a barrier. In addition, strict environmental

regulations from federal agencies and limited cross-border supply and consumption compromise the penetration of foreign firms in the industry.

2.4.2 Product Substitutes

LOW: Substitution for the environment service seems to be low. There is virtually no substitution for the environmental services at this point in time. However, changes to reducing waste output from the customer's side would significantly negatively impact the industry growth. These changes result from clean operations, and green operations. High technology would help reduce large amounts of waste and thus reduce the need for waste services.

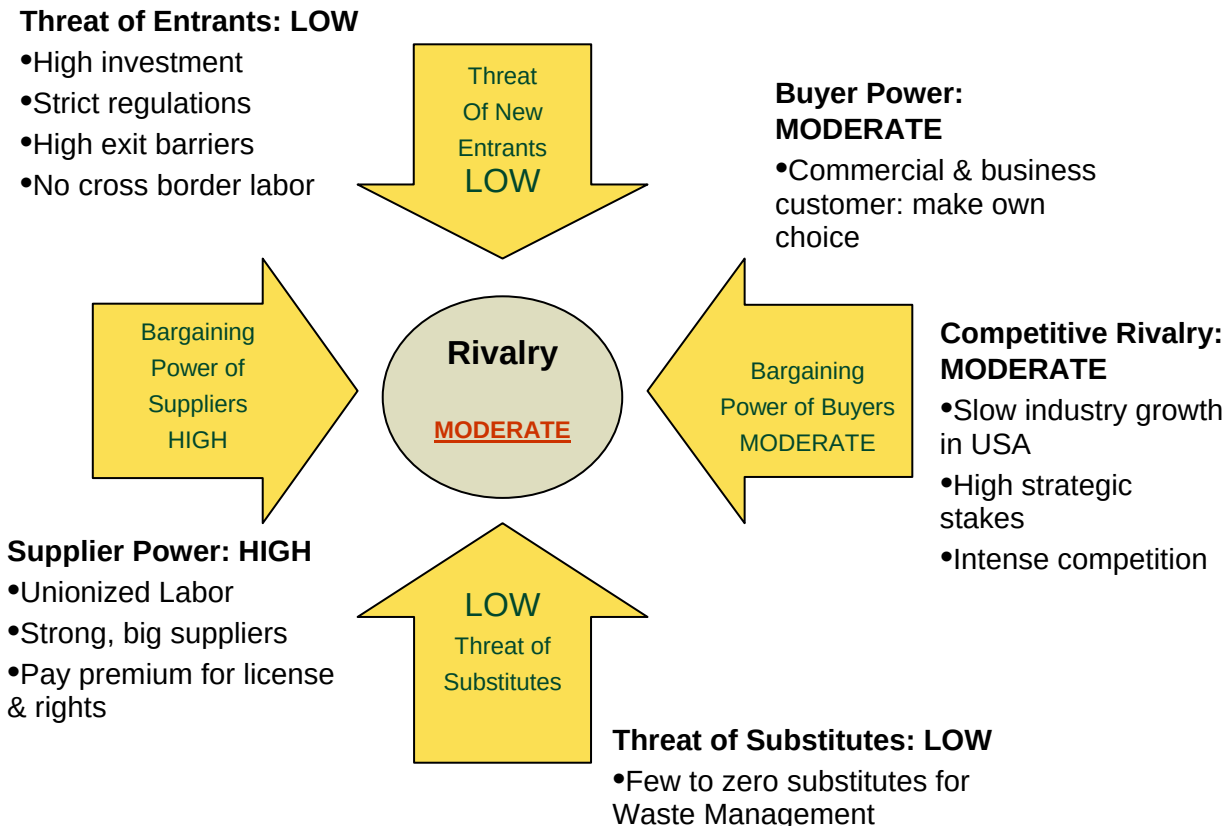


Figure 2-7: Porter's Five Forces Model

2.4.3 Bargaining Power of Buyers

MODERATE: The bargaining power of buyers is moderate. On the customer base standpoint, the market for the environmental services can be divided into 3 segments: residential, business, and industrial segments.

The residential customers do not seem to have much bargaining power over the providers. For the economy of scale and unique physical boundary, the city or a legal organization that manages the communities will select the waste services provider base on its comparability for the entire community. Individuals are not entitled to the right to choose a waste service provider for his or her household.

The business and industrial customers--especially the national industrial customer, on the other hand, has more power to make decisions on the service provider. With its huge size and its complex operations across the nations, the industrial customer requires a consolidated waste service provider that is modern and big enough to serve its needs. Thus, the business and industrial customer have significant power on the industry.

2.4.4 Bargaining Power of Suppliers

MODERATELY HIGH: Bargaining power of suppliers is moderate to high. Key suppliers to the environmental service industry consist of people – human labor, landfills, network of transportation stations, and facilities to process waste collected.

Relying on intensive human labor forces the industry to rely on real people to perform tasks that automated machines hardly can perform. Unions that represent these labored people can negotiate in favor of them.

Firms that operate in the environmental service industry also negotiate to obtain ownership of landfill and licenses from the government agency to dispose waste. These restrictions and regulations leave no choice but to force firms to pay a premium for the license and ownership rights.

Firms in this industry necessarily utilize special tools and equipments for these services. These equipment and tools are specially made for the environmental service needs. The huge trucks that transport collected waste from residential or business sites are custom made only for this kind of service in limited numbers. Thus, equipment suppliers to the industry dictate the power on the industry.

Facilities to process waste are normally huge in size, modern, and in compliance with strict federal regulations. They require strong, large, and competent companies to design and make them. As a result these equipment suppliers have bargaining power over the players in the industry.

2.4.5 Competitive Rivalry

MODERATE: Firms within this industry face moderate competition. The consolidation movement through mergers and acquisitions in the 1990's created momentum for the price wars between rivals in the oversupply condition. The oblique market features just a few compatible players in specific regions. Though there are just

a few players in the region, the competition is fierce because of powerful customers who prefer a modern and consolidated service provider for their national operations. In addition, customer loyalty to a particular provider is low due to short renewal contracts.

Demand for environmental services is growing at a very slow rate, coupled with powerful customers and low loyalty proves that the industry is fiercely intense.

2.5 SUMMARY OF INDUSTRY ANALYSIS

In the US and the EU, the environmental service industry is in the mature phase. Growth rates for these markets are low and that of Asia and Latin America are very good in the near future. Barriers to new entry are high due to high investment in equipments and transportation networks and strict regulations. Substitutes for the services are low. Bargaining power of the buyer is moderate while that of the suppliers are moderate to high. Competition among rivals is moderate.

2.6 COMPETITIVE ANALYSIS

As the demand for more landfills increases and environmental regulations continue tightening, the emergence for new competitors is always a threat for existing companies. In order to remain successful and ahead of the competition, it is important to understand who the competition is and what they are doing. This competitive analysis will focus on competitors within the waste management industry.

2.6.1 Industry Competitors

ALLIED WASTE INDUSTRIES, INC

Allied Waste Industries is the second-largest environmental services company in the US behind only Waste Management (WMI) with sales of $5,734.8 million in 2005, according to Hoover's website on Allied Waste Industries. The company serves 10 million customers consisting of residential, commercial, and industrial throughout the US. It operates a network of 310 collection companies, 166 transfer stations, 169 active landfills, and 57 recycling in 37 states. Two-thirds of the company's revenues come from residential and commercial services. (Hoovers, 2005 – Allied Waste Industries).

REPUBLIC SERVICES, INC.

The Fort Lauderdale, Florida, based Republic Services company posted sales of $2,863.9 million in 2005 and was ranked number 3 in the US in the environmental services. The company offers its primary solid waste services to customers, mainly in the Sunbelt, through its network of 140 collection companies, 60 landfills, 90 transfer stations, and 35 recycling centers. (Hoovers, 2005 – Republic Services)

WASTE CONNECTIONS, INC.

Waste Connections operations include solid waste collection, transfer, disposal, and recycling services. The Folsom, California, based company offers these services to more than 1 million customers – residential, commercial, and industrial customers in more than 20 states, mainly in the western US. The company focuses mainly on solid

waste services in small markets and its sales in 2005 was $721.9 million. It possesses 105 collection operations, 35 landfills, and 25 recycling facilities. (Hoovers, 2005 – Waste Connections)

2.6.2 Rivals Anticipated Strategic Moves

In the waste management industry, there are many uncontrollable factors that must be monitored to ensure decisions are based on forecasts of future demands. A significant amount of Waste Management's capital expenditures is spent on governmental and environmental regulations. The waste management industry is subject to extensive federal, state, and provincial laws and regulations. In addition, several environmental health, safety, and transportation laws and regulations are enforced.

Rivals wishing to meet the demands of the market are seeking to grow through acquisitions or expansions of new technological divisions. More modernized fleets and better customer service are just two of the competitive strategies that the current industry competitors thrive on. Most industry competitors are trying to establish a reputation within the market as a 'green' company. A 'green' company is an organization that is environmentally friendly, and in addition to the already strict environmental laws, the company makes an effort to go beyond expectations.

Company's that choose to emphasize their customer service focus may launch several campaigns that may appeal to other corporations and even residential customers. Some companies may leverage their construction and demolition services, which can also be an avenue of competitive leverage. In addition, providing medical and

special waste needs and recovery of hazardous materials is an avenue that may be more popular within the industry in the future.

2.6.3 Summary of Competitive Analysis

The future of the waste management industry will surely see more challenges in the future. The struggle of companies to meet current demands will reshape the industry. Companies will continue to invest significant dollars in technology and environmental quality. Companies are willing to devote the required capital to make these significant investments to profit. With rising fuel costs and environmental devastation, there's a chance the waste industry may struggle in the future.

2.7 KEY SUCCESS FACTORS

According the accepted definition, "An industry's key success factors (KSFs) are those things that most affect industry members' ability to prosper in the marketplace--the particular strategy elements, product attributes, resources, competencies, competitive capabilities, and business outcomes that spell the difference between profit and loss and, ultimately, between competitive success or failure. KSFs by their very nature are so important that all firms in the industry must pay close attention to them. They are the prerequisites for industry success or, to put it another way, KSFs are the rules that shape whether a company will be financially and competitively successful. The following are key success factors in this industry:

- Rights to acquire and possession of landfills -- In the environmental services industry, the crucial key success factor is the right to acquire more landfills and

possession of the rights to acquire landfills and to use these assets both effectively and efficiently. The physical assets include a huge network of collection companies, transportation stations, and process facilities to represent the firm's capability to cover the market. The more a firm has the more market the firm can cover. The ownership has the right to as many landfills as possible. This is another key to determine the capacity of the firm to dispose solid waste, while economical (as short as possible) distances help the firm operate more efficient and thus profitable.

- Another key success factor is the ability to control operation costs. One direct way to cut operation costs is through transportation. Effective and efficient logistic systems would help a lot to reduce unnecessary, extra effort to transport waste. Hauling distance is evidently proportional to transport cost, and higher transportation cost links directly to a disadvantage in the industry.

In addition, the human factor is significant to firms. This industry operates through intensive labor. Using labored employees effectively and efficiently will help the firm in shredding cost and expanding its capacity to serve more customers. This results in a dramatic increase in market share and profit for the firm.

3. INTERNAL ANALYSIS

3.1 ORGANIZATIONAL ANALYSIS

The Company is headquartered in Houston, Texas, and Waste Management Inc. is the leading provider of comprehensive waste and environmental services in North America. The Company's network of operations includes 431 collection operations, 381 transfer stations, 286 active landfill disposal sites, 17 waste-to-energy plants, 119

recycling plants, and 90 beneficial-use landfill gas projects. The Company is strongly committed to a foundation of financial strength, operating excellence, and superior customer service.

This section is an assessment of Waste Management's organizational structure, resources, strategies, objectives, and financial situation.

3.1.1 Corporate Vision

The corporate vision identifies where the firm's orientation for the future is in order to best serve stakeholders' needs. The vision incorporates current realities and any expected future conditions to create an ideal scenario within a relevant time frame (Cook & Hunsaker, 2001).

Based upon our analysis of Waste Management's strategies, we have concluded that the appropriate vision statement for the organization is as follows: "Our goal is to have a focused, world-class supply base firmly in place and readily accessible, producing a sustainable competitive advantage in every corner of our business."

In review of Waste Management's strategies and the above conclusion, the vision statement is trying to achieve the best-in-class in each part of their business for the future.

3.1.2 Corporate Mission

An organization's mission statement is meant to describe a firm's fundamental purpose. A mission statement is a written statement of purpose that can be used to initiate, evaluate, and refine all of an organization's activity

(http://www.medceu.com/course-no-test.cfm?CID=1467). It's important for businesses to have mission statements because they help provide quality goods and services.

Waste Management has a well-defined mission statement that demonstrates its intentions to customers, suppliers, and shareholders, and defines how they plan to demonstrate their abilities. Waste Management's mission statement is: "To develop and deliver meaningful business results." The Company will do so by:

❶ Building partnerships with the Field and Functions to identify and pursue real business opportunities and solve business problems.

❷ Developing and involving a loyal, skilled, productive, and innovative supplier base.

❸ Implementing and continually upgrading the best processes, systems, and tools available.

❹ Designing, aligning, and building an organization of highly skilled, business-oriented procurement professionals".

By incorporating all of these aspects into their mission, Waste Management is trying to show their stakeholders not only what their plan is to strategize, but how they plan to achieve it. The mission statement is an integral part of the Company because it ties their goals and strategies to a realistic idea that the Company wants to achieve.

3.1.3 Products and Services

Waste Management has several different products and services they offer to their customers. The Company offers a full range of environmental services to nearly 21 million residential, industrial, municipal, and commercial customers. The Company

tailors its services to meet the needs of each customer group and to provide consistent, superior service at the local level.

The services provided by their NASW segments include collection, landfill (solid and hazardous waste landfills), transfer, Wheelabrator (waste-to-energy facilities and independent power production plants), recycling, and other services.

Collection—this involves picking up and transporting waste from where it was generated to a transfer station or disposal site. For commercial and industrial collection services, the Company typically has a one to three-year service agreement. The fees under the agreements are influenced by factors such as collection frequency, type of collection equipment furnished by the Company, type and volume or weight of the waste collected, distance to the disposal facility, labor costs, cost of disposal and general market factors.

For most residential collection services, the Company has a contract with a franchise granted by a municipality or regional authority that gives them the exclusive right to service all or a portion of the homes in an area. These contracts or franchises are typically for periods of one to five years.

Landfill—Landfills are the main depositories for solid waste in North America and Waste Management has the largest network of landfills in this country. The landfills must be maintained to meet federal, state, or provincial and local regulations. The operation and closure of a solid waste landfill includes excavation, construction of liners, continuous spreading and compacting of waste, covering of landfill with earth or other inert material and constructing final capping of the landfill. Waste Management uses internalization, which generally allows them to realize higher consolidated margins and

stronger operating cash flows. The Company also operates a hazardous waste facility where they isolate treated hazardous wastes in liquid form by injection into deep wells that have been drilled in rock formations far below the base of fresh water to a point that is separated by other substantial geological confining layers. The Company owned and operated 281 solid waste and five hazardous waste landfills in 2004 compared with 284 solid waste landfills and five hazardous waste landfills in 2003.

Transfer—As of December 31, 2004, the Company owned and operated 381 transfer stations in North America. The Company deposits waste at these stations, as do other third-party waste haulers. At these stations, the solid waste is consolidated and compacted to reduce the volume and increase the density of the waste. The waste is then transported by transfer trucks or by rail to disposal sites.

Wheelabrator—through this service, the Company owns and operates 17 waste-to-energy facilities that are located in 11 states in the Northeast, Florida, California, and Washington. The waste-to-energy services are capable of processing up to 24,200 tons of solid waste each day. The solid waste is burned at high temperatures in specially designed boilers at these facilities, producing heat that is converted into high-pressure steam. They use that steam to generate electricity for sale to electric utilities under long-term contracts. The Company's Wheelabrator operations also include six independent power production plants that convert various waste and conventional fuels into electricity and steam. These plants burn wood waste, anthracite coal waste (culm), tires, landfill gas and natural gas. In addition to electricity production, the plants also produce steam, which is sold to industrial and commercial users.

Recycling—The Company's recycling group is comprised of Recycle America Alliance L.L.C. This was formed in January 2003 to improve the sustainability and future growth of recycling programs. Recycling involves the separation of reusable materials from the waste stream for processing and resale or other disposition. Waste Management recycling operations include the following:

- Collection and materials processing
- Glass recycling
- Plastics and rubber materials recycling
- Electronics recycling services
- Commodities recycling

Other NASW—The Company provides in-plant services, where they outsource their employees to provide full-service waste management to customers at their plants. Their vertically integrated waste management operations allow them to provide these customers with full management of their waste, including identifying recycling opportunities, minimizing their waste, determining the most efficient means available for waste collection and transporting and disposing of their waste. The Company also develops, operates, and promotes projects for the beneficial use of landfill gas through their Waste Management Renewable Energy Program.

3.1.4 Leadership

Leadership is the process of motivating others, providing direction for the firm, and gaining commitment to the mission and vision. Leaders create and share the mission, vision, and organizational goals to drive and create profits for the firm. Waste Management's success is evident by its exceptional management and leadership team.

The Company is led by present CEO, David Steiner and the current President and CEO, Lawrence O'Donnell III. In addition, on March 7, 2006, Mark A. Weidman became the new president of Wheelabrator Technologies, Inc., a wholly-owned subsidiary of the company. Based in Hampton, New Hampshire, Wheelabrator owns and operates 17 waste-to-energy facilities and six independent power production plants.

The Company's Corporate Governance Guidelines provide an outline of the Company's current business practices and the primary objectives which are to maximize shareholder value, while adhering to the jurisdictions within which it operates and observing the highest ethical standards.

On the contrary, leadership has not always been charismatic and ethical. Waste Management has faced their fair share of lawsuits and fraud investigations. From 1992 to 1997 the former executives (see table below) cooked the Company's books to meet predetermined earnings targets. Waste Management's revenues and profits were not growing fast enough to meet targets, so management inflated earnings by improperly eliminating and deferring current period expenses. The Company avoided depreciation expenses on their garbage trucks by both assigning unsupported and inflated salvage values and extending their useful lives. They also failed to record expenses for decreases in the value of landfills as they were filled with waste. Waste Management's accounting firm, Arthur Andersen, proposed that the Company used Proposed Adjusting Journal Entries (PAJEs) to correct errors that understated expenses and overstated earnings in the Company's financial statements, but management consistently refused to make the adjustments. Instead, the Company secretly entered into agreement with

Anderson to fraudulently write off the accumulated errors over periods of up to ten years.

Consequently, the new scheme was discovered in mid-1997, after a new CEO ordered a review of the Company's accounting practices. And in 1998, Waste Management restated its 1992-1997 earnings by $1.7 billion, the largest restatement in corporate history (as of March 2002).

WHO WAS INVOLVED?	
Dean L. Buntrock	**Waste Management's founder, chairman of the Board of Directors, and chief executive officer during most of the relevant period**
Phillip B. Rooney	**President and chief operating officer, direction, and CEO for a portion of the relevant period**
James E. Koenig	**Executive vice president and chief financial officer**
Thomas C. Hau	**Vice president, corporate controller, and chief accounting officer**
Herbert Getz	**Senior vice president, general counsel, and secretary**
Bruce D. Tobecksen	**Vice president of finance**

Table 3-1: Waste Management Executives

Management profited handsomely from their fraud, receiving performance-based bonuses based on the Company's inflated earnings, retaining their high-paying jobs, and receiving stock options. Some also received enhanced retirement benefits based

on the improper bonuses and/or lucrative employment contracts. On the other hand, Waste Management shareholders lost over six billion in the market value of their investments when the stock price plummeted by more than 33 percent. Overall, Waste Management has overcome their fraudulent activities, and continues to handle any lawsuits or unethical business practices fairly and with class.

3.1.5 Organizational Culture

At Waste Management, all employees and others performing work on behalf of the Company are expected to abide by the laws and regulations that apply to their work activities and demonstrate ethical behavior on their decisions and interactions. Some of their current ethics and diversity initiatives include:

1. Ensuring each and every employee is in possession of a current and relevant Code of Conduct entitles Focus on Integrity and Inclusion.
2. An operation of an integrity help line (1-800-265-9381) to assist employees who have questions about a business issue or wish to report a suspected violation.
3. Promoting diversity representation of the Board of Directors, Senior Leadership Team, Management, and Professional employees.
4. Proactive compliance with all EEO and OFCCP regulations.
5. Developing and delivering diversity and inclusion training to all employees with people management responsibilities.
6. Regularly communicating Waste Management's commitment to ethics, diversity, and inclusion commitment.
7. Focusing strategic partnerships with community organizations that share their diversity and inclusion commitments.

8. Increasing our procurement spending with minority and women-owned business (www.wm.com).

Waste Management is also dedicated to creating a culture of trust. By doing this the Company focuses their security efforts on three different areas: safeguarding their people, property, information, and assets; partnering with their people, customers, and vendors; and preserving their reputation and protecting shareholder value by supporting the highest ethical conduct. Waste Management also embraces the local communities they are involved in and are concerned with environmental policy. In addition, the Company places safety as a core value and a cornerstone of operational excellence.

The Company's goal is to attain world-class safety and to be one of the safest companies in their industry. Their plan of action is called 'Mission to Zero,' which means the Company has zero tolerance for unsafe actions, unsafe decisions, unsafe conditions, unsafe equipment, and unsafe attitudes.

The Company has over 50,000 employees and offers them a comprehensive benefits package that includes: health, family, financial, and professional development. The Company provides comprehensive health coverage, a prescription drug plan, a dental plan, salary continuance, retiree medical, and an employee and family assistance programs. If their employees have families, they offer flexible spending accounts, an adoption assistance program, education savings accounts, and WMI scholarship programs. The Company also offers several financial incentives and a tuition reimbursement program. Waste Management is an industry leader with operations throughout North America including Canada, Puerto Rico, Alaska, and Hawaii. They

have facilities in Houston, Texas (headquarters); Phoenix, Arizona; Chicago, IL; Atlanta, GA; Philadelphia, PA; and Hampton, NH (www.wm.com).

3.1.6 Structure

In 2002, Waste Management organized the Company into market areas to better align their collection, transport, recycling, and disposal resources. As part of this restructuring, they reduced the number of field layers of management and eliminated approximately 1,900 field-level administrative and operational positions (WM Form 10-K, 2004). In February 2003, the Company reduced the number of market areas that make-up their geographic operating groups and reduced certain overhead positions to further streamline their organizations. This restructurization resulted in a more effective utilization of resources and enabled them to service their customers better. In addition, the Company also reduced the workforce by 700 employees and 270 contract workers. The operational efficiencies provided by these organizational changes and a focus on fully utilizing the capabilities of their information technology resources enabled the Company to further reduce their workforce again, in order to become more efficient.

3.1.7 Summary of Organizational Analysis

Waste Management is segmented into several geographic market areas: Eastern, Midwest, Southern, Western, and Canadian operations. The Company manages and evaluates their operations through these five geographic groups and their Recycling and Wheelabrator Groups. The Company has maintained exceptional safety, environmental, and employee satisfaction ratings. Through constant improvement, motivation, and

outstanding leadership, Waste Management has created a culture of integrity, corporate governance, and an effective and efficient environment.

3.2 ANALYSIS OF FIRM'S RESOURCES

In analyzing a firm's resources and capabilities, it is important to understand that core competencies distinguish a company competitively and reflect its personality (Hitt, et al. 2005). By identifying firm resources, we are better able to identify a company's core competencies that can enable the firm to be more competitive in its industry. As the capacity to take action, these are the activities the company performs especially well compared to competitors and through which the firm adds unique value to its goods or services over a long period of time. However, not all of a firm's resources and capabilities are strategic assets; some actually may result in incompetence, because they represent competitive areas in which the firm is weak compared to competitors.

A firm will achieve strategic competitiveness and earn above-average returns only when it starts to take advantage of opportunities in the external environment by efficiently using its unique core competencies. (Hitt, et al. 2005)

3.2.1 Tangible Resources

Tangible resources are assets that can be seen and quantified, such as financial, organizational, physical, and technological resources. Examples of these include production equipment, plants, physical structure, firm's borrowing capacity (financial), stock of technology, access to raw material, etc (Hitt et al., 2005).

Organizational resources are STRONG: WMI is able to employ economies of scale by relying on it large physical network of plants and landfills.

Through a program called Service Machine, used to track and measure customer service performance, the firms is able to focus on retaining strong business relationships and securing new business by continuing to improve customer service.

Another program that was established is Team 200, a group of employees that will work closely with senior management to develop plans and strategies and address critical issues. The firm is also implementing integrated training strategies, including those focused on ethics, diversity and inclusion as well as safety. Finally, a main emphasis in upcoming years is career development, and the implementation of strategies to recruit, hire and retain valued employees. (10K Annual Report, 2004)

Additionally, WMI currently offers an In-Plant Services model, where existing skills and resources are used to manage customers' waste needs by having WMI employees work on-site to reduce waste, increase recycling and lower overall costs of disposal, and to provide innovative waste service solutions.

Physical resources are STRONG: Waste Management currently enjoys a large North American presence, including 286 landfills that are wholly owned or operated. The large number of landfills offers WMI the advantage of covering a large expanse of territory, with convenient access for its routes. A national presence and long history allows the firm to provide large, multi-location commercial and industrial customers with a single point of contact for nation-wide services at competitive pricing.

The following table provides certain information by Group regarding the 248 landfills owned or operated through lease agreements, and a count, by Group, of contracted disposal sites as of December 31, 2004:

Section	Landfills	Total Acreage	Permitted Acreage	Probable Expansion Acreage	Contracted Disposal Sites
Canadian	12	5,303	1,326	1,107	**5**
Eastern	44	27,984	5,926	979	**7**
Midwest	71	30,222	8,889	989	**8**
Southern	81	38,536	11,571	1,144	**13**
Western	36	34,092	6,501	1,272	**5**
Wheelabrator	4	781	289	-	**-**
	248	***136,918***	***34,502***	***5,491***	***38***

Table 3-2: Physical Resources

(Waste Management Inc. Annual Report, 2004)

Principal property and equipment consist of land (primarily landfills and other disposal facilities, transfer stations and bases for collection operations), buildings, vehicles and equipment. Current inventory of vehicles, equipment, and operating properties are adequately maintained and sufficient for operations. However, additional investments for expansion, for replacement of assets, and in connection with future acquisitions have been announced in the company's Annual Report (2004).

The following table summarized WMI holdings and physical operations as of December 31, 2004 for the periods noted:

Landfills	***2004***	***2003***
Owned or operated through lease agreements	248(a)	247
Operated through contractual agreements	38	42
Transfer Stations	381	366
Material recovery facilities	106	138
Secondary processing facilities	13	16
Waste-to-energy facilities	17	17
Independent power production plants	6	6

Table 3-3: Waste Management Holdings & Physical Operations

(a) Includes a landfill in Ontario, Canada that was held-for-sale at December 31, 2004 and divested in January 2005. ***(Waste Management Inc. Annual Report, 2004)***

Technological Resources are WEAK: Fleet maintenance and route optimization remains a focus of improvement projects. The metric used for fleet maintenance is maintenance cost per driver hour, which is improved through basic planning and scheduling of maintenance work as well as enhanced training. For the route optimization initiative, a proprietary software application called WasteRoute is used, which was designed to help organize routes more efficiently. The optimization initiative has resulted in improved productivity as well as a reduction in the number of routes. Future plans include institutionalizing identified best practices to support future productivity improvement.

Other technological innovations include a landfill point-of-sale system that streamlines the transaction process, improves data quality, and provides critical information for analysis by waste stream, by customer and by market, and that provides

better pricing discipline. Designed to bring major improvement and cost reduction to the operations at the company's 786 disposal, material recovery and transfer facilities, the point-of-sale system represents a breakthrough in applied technology in this industry. In addition, landfill industrial sales and customer service organization were consolidated into 15 service centers that serve the entire network with greater efficiency.

3.2.2 Intangible Resources

Intangible resources tend to be a superior and more potent source of core competencies simply because they are much harder to emulate and harder to acquire. These resources include knowledge, ideas, capacity for innovation, trust between employees and managers, managerial capabilities, and the way that firm interacts with customers, employees, suppliers and other stakeholders. Intangible resources are beneficial in that their use can be leveraged; the larger the network of users, the greater the benefit to each party. Proper use of these types of resources is an important source of competitive advantage.

Human resources are STRONG: With a long history of waste management and an extensive portfolio of acquisitions and mergers, the firm features a deep knowledge and expertise among its management of the industry. In addition, the company is committed to enriching its knowledge base by attracting experts in their fields. For instance, in a push to implement integrated information systems that will better streamline operations and offer customers a higher level of service, WMI brought in security and systems expert Anne Rogers, who is a long-time veteran in developing corporate systems and security.

The human aspect of the company's assets is valued and efforts are made to manage them well, requiring a strong sense of stewardship and service. Programs that have been successfully implemented demonstrated that the firm's disciplines are built around the relentless pursuit of improvement, as they focus on continuously examining processes and programs, deployment of resources and investment of capital. We challenge ourselves daily to achieve the inseparable objectives of cutting costs and saving money while improving our processes, increasing productivity, and delivering ever-better service to our customers.

The company also enjoyed continued success in implementing several operational excellence initiatives during 2004. Programs such as the 'Mission to Zero' operational safety program in late 2000 resulted in improvements in both total recordable incident rate and hourly accident recordable rate, metrics used to measure progress in attaining this goal.

Innovative resources are STRONG: Waste Management Inc. demonstrates a remarkable ability to reinvent itself through innovative thinking and bold reorganizations. Over the past five years, the company launched an intensive period of rebuilding the processes and systems around their operations. New information systems to meet the compelling need for reliable data and to bring technology into all aspects of operations were developed. Ultimately, the firm completely overhauled the way it serves customers, purchases goods and services, maintains vehicles and equipment, structures routes and conduct sales, by reorganizing operating units around market areas and created market-specific business strategies. Out of necessity, these initiatives were developed and implemented in rapid succession over a short time.

This capacity for making the dramatic changes necessary to remain, or return to, competitiveness in this mature industry is a core strength for WMI.

Reputational resources are MODERATE: Waste Management Inc. is a long-standing firm with ties to many communities and local governing bodies across North America. As the number one largest residential waste management and collection company in the U.S., WMI enjoys considerable brand awareness among customers. According a statement made in the 2004 Annual Report, no single customer contributed over 1 percent of operating revenues, demonstrating a widely diversified customer base.

However, with great size comes greater exposure to risk. The Chicago waste collection workers strike made a serious dent in the reputation of garbage collection companies in the area, notably Waste Management Inc. Exposure to this risk is inevitable, and impacts the value of the firm's reputational assets. Finally, since many residential customers have little choice in waste collection services, oftentimes this service being a foregone conclusion due to community contracts with specific firms, Waste Management may suffer from negative associations with circumstances beyond firm control yet with negative service outcomes for customers.

3.2.3 Capabilities

Capabilities are the firm's capacity to deploy resources that have been purposely integrated to achieve a desired end state. They emerge over time through the intricate interactions between tangible and intangible resources. Critical to the forming of competitive advantages, capabilities are often based on developing, carrying, and

exchanging information and knowledge through the firm's human capital. Because a knowledge base is grounded in organizational actions that may not be explicitly understood by all employees, repetition and practice increase the value of a firm's capabilities. (Hitt et al., 2005)

Examples of Waste Management Inc.'s capabilities include, but are not limited to: management's ability to continuously reinvent processes for improvement, to identify and acquire key physical assets, to train its human resources, and to efficiently develop and implement innovative technology.

3.2.4 Core Competencies and Sustainable Advantages

Capabilities must be valuable, rare, costly to imitate, and non-substitutable to become core competencies. These core competencies, in turn, can become a source of competitive advantage for a firm, when used properly. Firms must therefore identify and qualify their capabilities to locate their core competencies, so that they may be better able to develop a competitive advantage. These criteria are:

- *Valuable* – these capabilities allow the firm to exploit or neutralize threats in its external environment. By using capabilities to exploit opportunities, the firm creates value for customers.

- *Rare* – capabilities that are rare are those that few, if any, competitor possess.

- *Costly-to-imitate* – these capabilities are those that other firms cannot easily develop, due to a combination of history, culture, and/or social complexity.

- *Non-substitutable* – are those capabilities that do not have a strategic equivalent among the range of other capabilities.

Valuable

Due to its large size, and considerable free cash flow, WMI is able to identify and neutralize physical threats by absorbing smaller strategically placed companies within overlapping territories. In addition, the large number of landfills and permitted disposal sites in North America provide WMI a strong base to defend against competitors. Landfills and permits are difficult to obtain, entailing extensive governmental bureaucracy.

Rare

Waste Management Inc. is attempting to develop a rare capability of offering integrated services to customers, with single-point contact. With its wide range of services, WMI provides integrated waste management services consisting of collection, disposal, transfer, waste-to-energy facilities and independent power production plants, as well as recycling and other miscellaneous services throughout North America.

In addition, the firm's Wheelabrator assets in waste-to-energy technology are a capability that its competitors do not possess. In light of the current worldwide energy issues, this capability may be eminently exploitable for competitive advantage.

Costly-to-imitate

WMI's capabilities lie firmly in its overwhelming physical assets, which it acquired over time through mergers and buy-outs. This capability is costly for competitors to imitate by its very nature. However, it is not sustainable, and actually faces significant risk of competition. Aggressive competitors may opt to merge, which would easily defeat WMI's advantage of physical size and location.

Non-substitutable

The primary capability is that it is non-substitutable, and has the potential to be the most valuable as well as management's ability to reinvent itself for continuous improvement. The ability to successfully manage and navigate change programs is in itself a capability, that, when managed properly, may become a source of competitive advantage. The past five years has shown WMI with a remarkable ability to recover and redesign its organization. On the surface, the organizational culture which allowed corruption and scandal of the late 1990s has been turned into that of a progressive company whose focus on superior customer service and technological integration has produced over 25 percent growth per year in the early 2000s.

The only capabilities which appear to meet all four criteria are the company's ability to identify and absorb strategic acquisitions and its management's ability to continuously improve and reinvent its processes. In summary, WMI appears to have reasonably strong likelihood of developing sustained competitive advantage within this framework.

3.2.5 Summary of Firm's Resources:

Overall, Waste Management Inc. features reasonably strong resources, with an emphasis on tangible, physical resources. The sheet size and number of WMI corporate and affiliated locations offers the firm an advantage over other firms. However, this resource is not difficult to imitate, and must be continually reassessed as it stand considerable risk of losing its advantage.

The capability that is most valuable and offers WMI best source of competitive advantage is its management's ability to continuously reinvent itself, with programs and change for constant improvement. This system of constant self-evaluation and re-evaluation can enable the company to better meet challenges and threats as they arise in the external environment.

3.3 ANALYSIS OF OBJECTIVES

Waste Management, Inc. has skillfully framed its short-term, long-term and financial objectives around its mission statement. WMI is dedicated to providing and delivering successful business results to their customers, suppliers, and shareholders. This involves being efficient in operations, safety procedures, and employee utilization.

3.3.1 Short-Term Objectives

Recent objectives include programs for reducing cost structure. As the economy improved, objectives have expanded to include focusing operations on a combination of growth, productivity improvements and continued cost cutting. Plans for growth are

grounded in margin expansion from better pricing while continuing to cut costs, and emphasis is placed on growing returns from new capital investments.

Improving pricing through a landfill pricing study at 30 company-owned landfills, to gather and analyze information leading to an understanding of the reactions to price increases in various markets in the United States and Canada.

3.3.2 Long-Term Objectives

Long term objectives include being the best-in-class. Several programs and efforts to ensure superior levels of customer service have already been implemented.

Another long term objective is to use free cash flow to reinvest through capital expenditures, making investments in those locations and lines of business that offer superior margins and return on capital. The company will continue a “tuck-in” acquisition program, primarily seeking collection operations that overlay existing WMI route structure and are strategically located near existing WMI disposal sites. Permitted landfills, transfer stations, or waste-to-energy facilities are also attractive acquisition candidates.

With regards to under-performing business lines, the firm will seek exit strategies, which may include exiting lines of businesses, not renewing or bidding on certain contracts, or offering certain assets for sale to others.

3.3.3 Financial Objectives

Waste Management will need to successfully manage its costs. In order to do this several profit improvement initiatives must be implemented in order to lower its costs and enhance their revenues. The Company must also manage better initiatives for subcontractor costs and the effect of the rising trend in fuel prices.

Employee-related costs and expenses also threaten their operating expenses. The Company must make sure that C-level executives and management have the right people in the correct areas in order to secure the financial future of Waste Management, Inc.

3.4 FINANCIAL ANALYSIS

The financial analysis section is a brief look at how well WMI has performed over the last 5 years, in most case as compared to the industry and S&P 500.

3.4.1 Operating Groups Financial Performance

The table below shows the total revenues (in millions) contributed annually by each of WMI's seven reportable segments (groups) in the three-year period ended December 31, 2005. Five of these groups are organized by geographic area and the other two of which are organized by function. Some figures are shown as a percentage for ease of analysis.

	2005	%Change	2004	%change	2003
Eastern	361	0.8	358	6.9	335
Midwest	426	10.4	386	2.9	375
Southern	699	5.1	665	10.5	602
Western	471	13.5	415	4.8	396
Wheelabrator	305	7.8	283	23.6	229
Recycling	15	(40)	25	457.1	(7)
Other	3	125	(12)	40	(20)
Corporate	(570)	(35.4)	(421)	(13.8)	(370)
Total	1,710	0.6	1,699	10.3	1540

Table 3-4: Financial Performance (Operating Income)

The southern and Western groups are clearly the strongest financial contributors to WMI overall financial performance. However the Midwestern group is posting a percentage revenue increment of 10.4 percent from 2004 indicating that is in a growth mode.

Overall WMI is posting an Internal Revenue Growth (IRG) of 3.7 percent. IRG change in revenues from: base business yield; commodities; electricity; fuel surcharges and fees; and volumes. This was due primarily to improvement in base business yield and an increase in revenues related to WMI's fuel surcharge program. Revenue growth from yield on base business is the combined affects WMI's revenues from the pricing activities of their collection, transfer, disposal and waste-to -energy. Some of the improvements in operating income from 2003 to 2004 was driven primarily by (i) revenue growth due to increased average yield across all major lines of business,

partially offset by volume declines in transfer, residential collection and landfill operations throughout the year; (ii) higher operating expenses incurred in 2003 as compared with 2004 due to the first quarter's harsh weather conditions; and (iii) acquisitions (iv) revenue growth associated with increased base business yield for the collection line of business, which was driven principally by residential collection operation (v) decline in landfill amortization expense generally as a result of changes in certain estimates related to WMI's final capping, closure and post-closure obligations. (vi) yield improvements in commercial and industrial collection operations and volume growth in residential collection and transfer operations.

Some of the decline in earnings were related to hurricanes, largely due to the temporary suspension of operations in the areas affected by the recent Hurricane; (ii) the effects of higher landfill amortization costs, generally due to reductions in landfill amortization periods to align the lives of the landfills for amortization purposes with the terms of the underlying contractual agreements supporting their operations; (iii) higher landfill amortization expense as a result of changes in certain estimates related to WMI's final capping, closure and post-closure obligations; and (iv) increases in salaries and wages. (v) increased labor costs; (vi) higher fuel costs not passed on to customers; and (vii) increases in third party transportation and other subcontractor costs.

The electric rates charge to WMI customers at their waste-to -energy facilities increased significantly during the latter portion of 2005 as a result of higher market prices for natural gas, which increased significantly as a result of hurricane-related production disruptions, increased demand and increases in crude oil prices. This increase in rates was the principal reason for the current year increase in

Wheelabrator's income from operations. The favorable impact of market prices for natural gas was partially offset by higher costs of goods sold and higher repair and maintenance costs due to the scope and timing of work performed in 2005 as compared with 2004.

The decrease in income from operations in WMI's Recycling Group during 2005 when compared with the prior year can generally be attributed to (i) an increase in the rebates paid to its suppliers as a result of increased competition; (ii) costs related to the deployment of new software; and (iii) higher subcontractor costs primarily related to increased distances traveled by third-party truckers.

Also contributing to the increase in expenses during 2005 were (i) an increase in non-cash employee compensation costs associated with current year changes in equity-based compensation; (ii) increases in employee health care costs; (iii) salary and wage increases attributable to annual merit raises; (iv) increased sales and marketing costs attributed to a national advertising campaign and consulting fees related to WMI's pricing initiatives.

3.4.2 Growth Analysis

WMI's 5 year average sales growth is significantly lower than the industry average (it is approximately 50 percent of the 5 year industry average and about 20 percent S&P500 which represents the market as a whole). However WMI's 5 year average earning per share growth is higher than the industry average and S&P 500. This is an indication of investor confidence in WMI shares. Its EPS growth implies that the business is capable of growing in the years ahead.

	WMI					5 Year Average		
	2005	2004	2003	2002	2001	WMI	Industry	S&P
Sales Growth (%)	4.4%	8.1	3.8	(1.6)	(9.4)	1.1	2.23	5.22
EPS Growth (%)	30.34%	32.26	(8.68)	67.13	16	27.41	22.03	13.61
Capital Spending (%)	(6.2)%	4.8	(6.8)	(3.1)	0.75	(2.11)	15.71	4.14

Table 3-5: WMI Growth Analysis

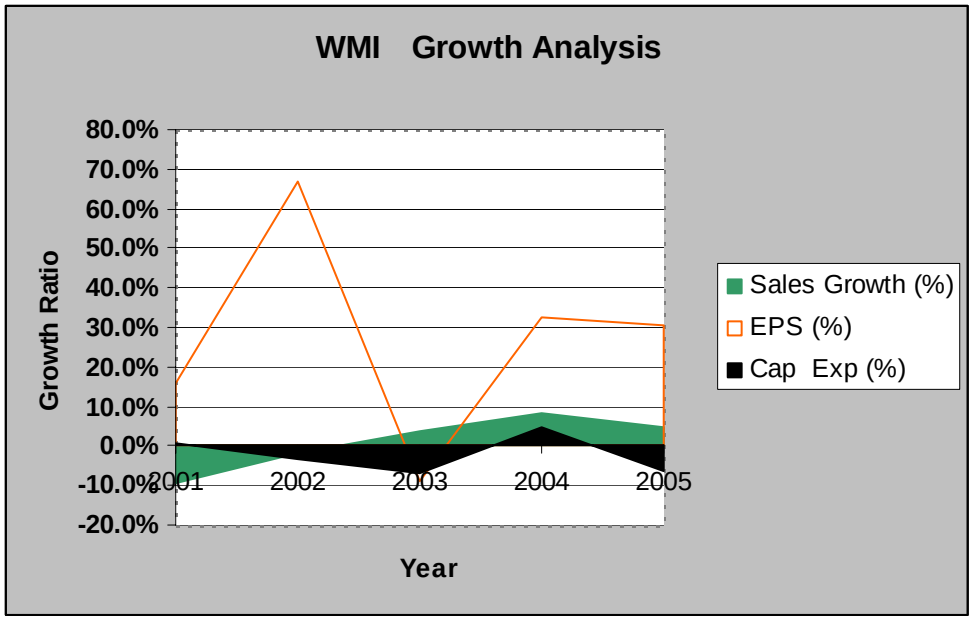


Figure 3-1: WMI Growth Analysis

WMI's low capital expenditure is lower than the industry average, an indication of cost cutting initiatives for a company that is divesting from poorly performing subsidiaries.

Ideally there should be a relationship between company assets and the amount of sales that those assets generate. WMI sales growth has consistently surpassed its capital spending growth suggesting that WMI has been coming up with new ways to generate more revenue from existing assets.

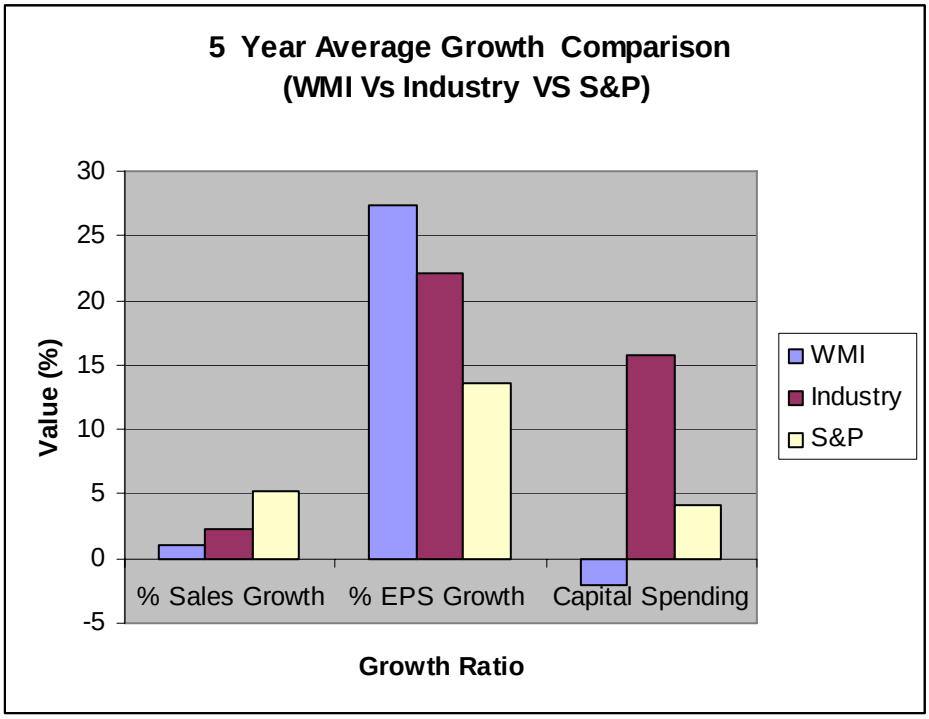


Figure 3-2: 5 Year Average Growth Comparison

3.4.3 Profit Margin Analysis

WMI's income before cumulative effect of changes in accounting principles as a percentage of revenues increased in 2005 to 9.0 percent from 7.4 percent in 2004. This increase is largely due to a tax benefit resulting from tax audit settlements and not from some managerial dexterity. WMI's income from operations as a percentage of revenues decreased to 13.1 percent in 2005 from 13.6 percent in 2004 on an increase of

$558 million in revenue. WMI's selling, general and administrative expenses in 2005 increased by $9 million, but as a percentage of revenue actually decreased by 0.3 percentage points to 9.8 percent.

	WMI					5 Year Average		
	2005	2004	2003	2002	2001	WMI	Industry	S&P
Gross Margin	33.98	34.26	34.83	38.02	40.32	36.44	38.84	44.79
EBITD Margin	23.49	24.13	24.39	25.60	26.80	24.17	23.42	20.03
Operating Margin	13.08	13.58	13.19	14.66	11.33	13.17	13.72	18.42
Pre-tax Margin	8.35	9.41	9.64	11.08	6.92	9.08	8.83	10.02
Net Profit Margin	9.04	7.44	6.17	7.31	4.42	6.88	5.65	11.31

Table 3-6: WMI Profit Margin analysis

Gross Margin is an indication of how much profit is left after subtracting costs that are necessary to actually produce the goods or services the company sells (variable cost). The operating margin is a measure how much profit is left after deducting the basic expenses of running a (Sales, General and Administrative expenses (SG&A). The operating margin is an effective gauge of the performance of a company's BUSINESS activities, but not of the performance of the COMPANY itself. WMI's 5 year average Gross Margin is lower than the industry average indicative of high variable costs (raw materials, fuel, direct labor, etc). Its operating margin is also lower than the industry average, also suggestive of high overheads. However, WMI's Pre-tax and Net

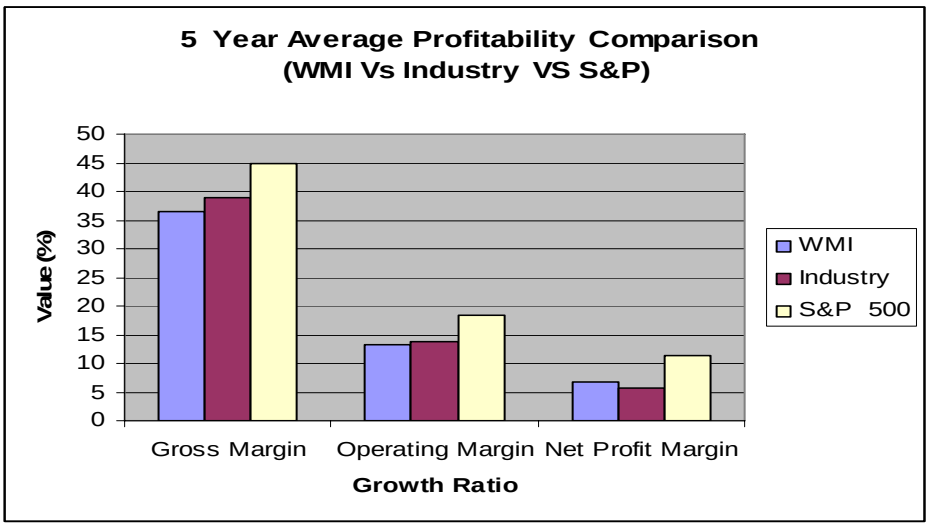


Figure 3-3: 5-Year Average Profitability Comparison

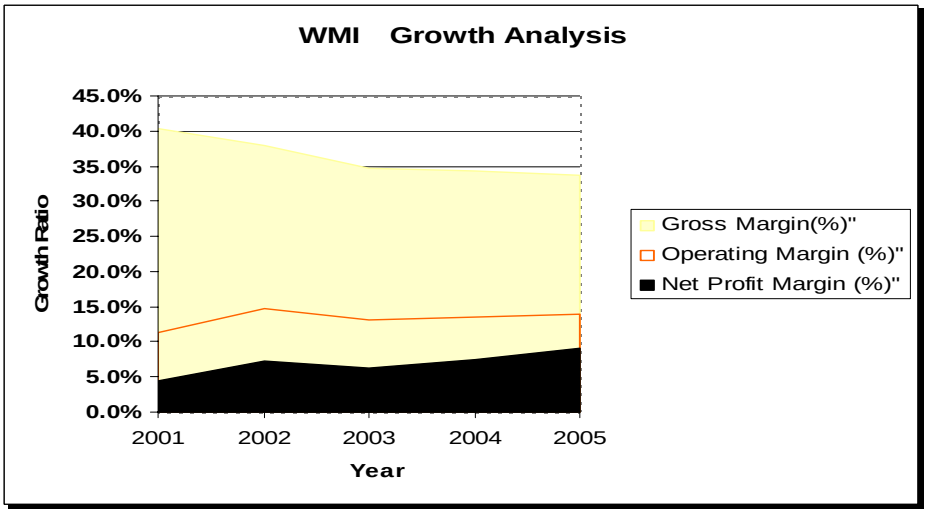


Figure 3-4: Growth Analysis

Margins are higher than industry average indicative of an overall cost-efficiency of the entire corporate enterprise, attributable to low interest expense. In sum, WMI seems to have an overall economic success in managing its day-to-day business activities, with a net profit margin higher than industry average despite gross and operating margins that are lower than the industry average. Although there remains work to be done, this

analysis reveals that WMI's 2005 operating margins demonstrate a pricing progress as well as continued managerial efforts to improve the efficiency of WMI's operations.

3.4.4 Financial Condition Analysis

Financial strength is an important indicator of the amount of business risk a company is taking. When business conditions turn bad, financially stronger companies have more staying power. Not only are they less likely to face insolvency, they are also less likely to find a need to make the sort of drastic cutbacks that might restrain their ability to grow even after better times resume.

Liquidity Analysis

The Quick Ratio and Current Ratio at the top of the table are the most stringent tests of financial strength of WMI. They measure the level of liquidity that is or could become available to WMI in short periods of time. While the Quick Ratio compares its cash and short-term investments to the financial liabilities WMI is expected to incur within a year's time, the Current Ratio compares year-ahead liabilities to cash on hand now plus other inflows the company is likely to realize over that same twelve-month period.

Compared with the 5 year industry average WMI, for all practical purposes enjoys a high level of liquidity both in the near and medium terms.

	WMI					TTM		
	2005	2004	2003	2002	2001	WMI	Industry	S&P
Quick Ratio	0.82	0.74	0.6	0.61	0.64	0.8	0.8	1
Current Ratio	1.06	0.88	0.78	0.86	0.84	1.1	1.0	1.4

Table 3-7: Liquidity Analysis

Debt Management – Solvency Ratios

While the LT Debt to Equity Ratio looks at the company's capital base, the Total Debt to Equity ratio takes into account both long-term and short-term debt. Long-Term Debt is assumed to be a permanent part of the company's capital structure. The more debt in a company's capital structure, the greater the financial leverage risk. If business turns weak, there are some costs a company can easily reduce to protect its profits and preserve liquidity. But interest on debt is generally not among these variable costs. Interest must be paid even when revenues are falling. Hefty levels of debt and heavy interest expense burdens could lead to insolvency if revenues or operating profits remain weak for a prolonged period. The larger the Total Debt to Equity Ratio is relative to the LT Debt to Equity Ratio, the more risk the company faces from the prospect of rising interest rates. It is generally assumed that higher debt ratios signify greater levels of risk. *Companies with high levels of interest coverage are better able to carry more debt*.

A hard look at WMI's short and Long Term Solvency ratios indicates a healthy capital base and a capital structure indicative of sound business management. With an average Debt/Asset ratio of 0.42, WMI's the financial leverage risk is not very high, and in the prospect of rising interest rates, and dwindling revenues WMI can protect itself by reducing some costs. In addition, WMI's Total Debt to Equity Ratio relative to the LT Debt to Equity Ratio is not significantly larger implying less risk from the prospect of rising interest rates.

Even though higher debt ratios signify greater levels of risk, WMI is in an industry characterized by fairly stable cash flows (seasonal variations apply though) and can safely carry more debt than can companies whose cash flows follow volatile trends. Comparing WMI with its industry peers indicates no weakness in their capital structure especially considering WMI's higher-than-industry average Interest Coverage ratio, implying that they can carry more debt.

	WMI					TTM		
	2005	2004	2003	2002	2001	WMI	Industry	S&P
LT Debt to Equity	1.33	1.37	1.42	1.51	1.43	1.33	1.46	1.04
Total Debt to Equity	1.42	1.43	1.52	1.75	1.56			
Interest Coverage Ratio	3.45	3.73	3.51	3.52	2.36	3.2	2.6	3.3
Debt/Asset	0.41	0.41	0.42	0.42	0.42			
Leverage Ratio	3.45	3.5	3.64	3.74	3.62	3.5	3.6	5.7

Table 3-8: WMI Solvency Ratios

3.4.5 Investment Return Analysis

	WMI					5 Year Average		
	2005	2004	2003	2002	2001	WMI	Industry	S&P
ROE	19.55%	15.73	11.25	15.49	9.33	14.7	11.7	12.4
ROA	5.05%	4.49	3.09	4.14	2.58	4.9	2.9	2.1

Table 3-9: WMI Profitability Ratios

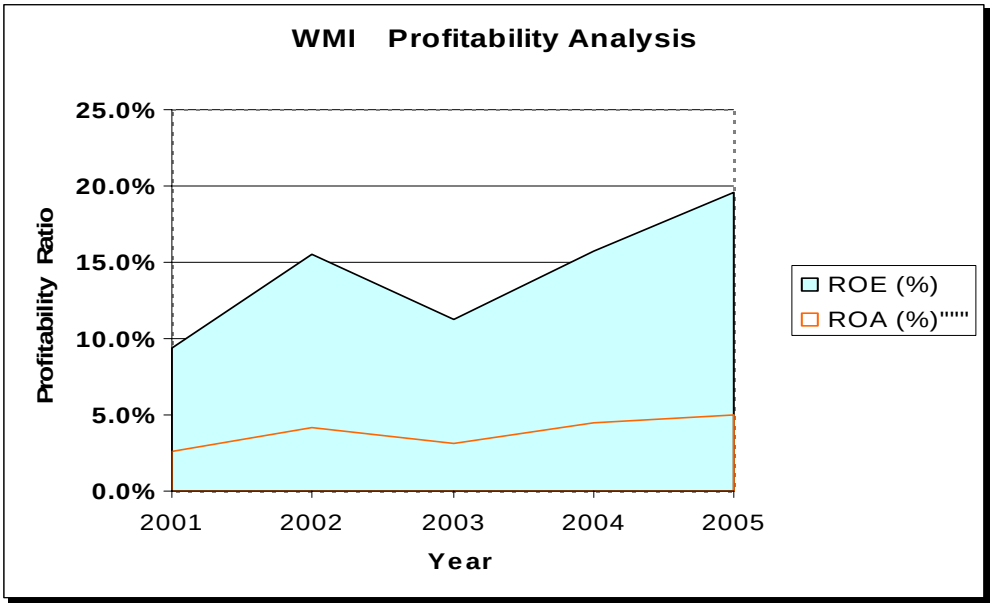


Figure 3-5: WMI Profitability Analysis

WMI's five year average ROE and ROA are greater than the industry average. Indicating that it is generating good returns on its investor capital and adequate profits on its capital.

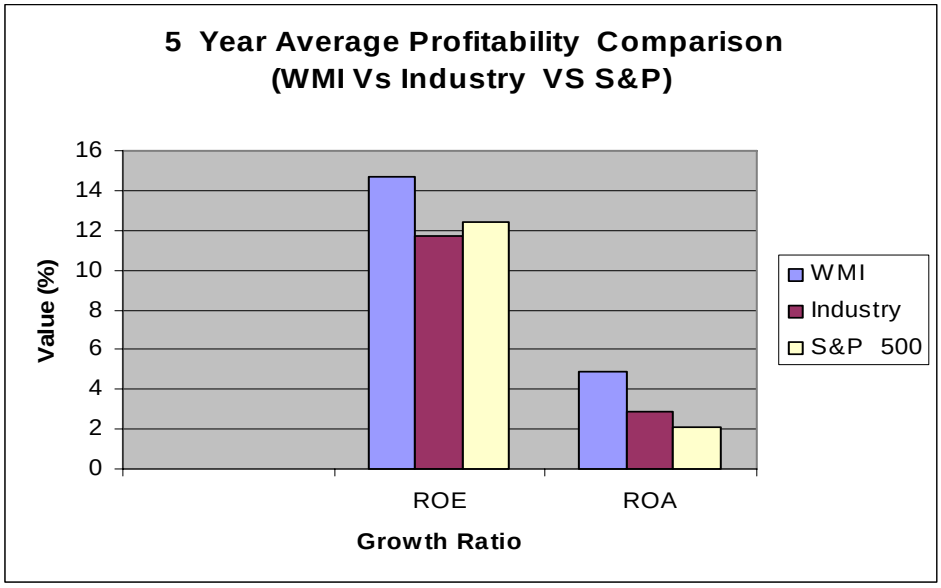


Figure 3-6: 5-Year Average Profitability Comparison

EVA Determination	2001	2002	2003	2004	2005
EBIT	1663	1652	1576	1,685	1806
NOPAT	1135	1127	1076	1150	1233
Total Investor Supplied Operating Capital	7715	8068	8003	8188	8171
After Tax Cost of Capital(WACC)	6.72%	6.72%	6.72%	6.72%	6.72%
Dollar Cost of Capital= Capital* (WACC)	518.45	542.17	537.80	550.23	549.09
EVA= NOPAT-Capital Cost	617	585	538	600	684
ROIC= NOPAT/Operating Capital	14.71%	13.97	13.44	14.05	15.08
ROIC - WACC	7.99%	7.25	6.72	7.33	8.36
EVA= Operating Capital* (ROIC -WACC)	**617**	**585**	**538**	**600**	**684**

Table 3-10: Economic Value Analysis

MVA Determination	2001	2002	2003	2004	2005
Price per share	27.12	21.64	26.14	28.03	31.37
Number of shares in Millions	628.02	594.6	576.12	570.21	552.52
Market Value of Equity	17031.9	12867.1	15059.78	15983	17332.55
Book Value of Equity	5392	5308	5602	5971	6121
MVA= Market Value - Book Value	11639.9	7559.1	9457.8	10012.0	11211.6

Table 3-11: Market Value Analysis

The primary goal of most firms is to maximize shareholders' wealth. This goal obviously benefits shareholders but also helps to ensure that scarce resources are allocated efficiently. Shareholder's wealth is maximized by maximizing the difference between he market value of the firm's stock and the amount of equity capital that was supplied by shareholders. This difference is called market value. A high positive MVA here indicates that the management of WMI has created value for the firm owners.

The Economic Value Added focuses on the managerial effectiveness in a given year. It is an estimate of the business's true economic profit for the year. It represents the residual income that remains after the cost of all capital including equity capital has been deducted. It measures the extent to which WMI has added share holder value. For the years considered this analysis indicates that WMI posted positive EVAs. Therefore focusing on EVA helps to ensure that a company operates in a manner consistent with maximizing shareholder wealth. Net income does not reflect the amount of equity capital employed, but EVA does. And WMI posted a net positive EVA over the five year period considered in this analysis. This is indicative of a good management team that has

consistently added value. Based on this analysis, it is believed that this trend is sustainable in the coming years.

Value Drivers	2001	2002	2003	2004	2005
Sales	11322	1121	11648	12516	13074
Growth in Sales	(9.4)%	(1.6)	3.90	7.45	4.46
Profitability = NOPAT/Sales	10.02%	10.06	9.23	9.19	9.43
Capital Requirement =Capital/Sales	0.88	0.89	0.95	0.93	0.86
WACC	6.72%	6.72	6.72	6.72	6.72

Table 3-12: Value Drivers

A good look at the value drivers: sales growth, Operating profitability (OP), Capital Requirements (CR) and the Weighted Average Cost of Capital (WACC) also indicate high managerial efficiency. The sales growth generally, but not always, has a positive effect on value, provided the company is profitable as is WMI.

The operating profitability measures the after tax profit dollar of sales, always has a positive effect – the higher the better. Third, the capital requirements ratio, which measures how much operating capital is needed to generate a dollar of sales, also has a consistent effect - the lower the CR the better, since a low CR means the company can generate new sales in smaller amounts of new capital. Finally, the fourth factor WACC, also has a consistent effect, the lower it is the higher the firm's value. According to this analysis from all the indices considered WMI appears to be doing very well. It is posting and continues to promise a positive and increasing Economic Value Added, indicative that it will continue to create wealth for its shareholders. The key value drivers are Operating Profitability (OP), Capital Requirements (CR); WACC also clearly

indicate that the firm is rather healthy but it has growth potentials. Staying off debt has helped WMI to keep its cost of capital low and the stock value high. Sales are forecasted to continue increasing and short-term debt may rise somewhat but overall; WMI is a very sound company with a strong footing on its growth path.

3.4.6 Management Efficiency Analysis

	WMI					TTM		
	2005	2004	2003	2002	2001	WMI	Industry	S&P
Income/ Employee	$24,000	18,000	12,000	16,000	9,000	24,000	16,000	30,000
Revenue Per Employee	$261,000	245,000	225,000	211,000	198,000	261,000	228,000	362,000
Receivable Turnover	6.6	6.7	6.54	6.56		6.6	7.1	7.7
Inventory Turnover	91.3	95.7	93.7	84.7		91.3	142.8	8.5
Asset Turn over	0.6	0.6	0.57	0.56	0.58	0.6	0.6	0.99

Table 3-13: WMI Management Efficiency Table

3.4.7 Stock Price Analysis

This stock's forward earnings yield of 4.69 percent is the annual return it would generate if its profits remained fixed and it paid out all of its earnings as dividends. This is normal compared with the earnings yields of other stocks in its industry, but it is extremely healthy in absolute terms. For WMI to generate decent returns for investors, it will probably only have to realize moderate growth in earnings or a higher valuation by the market. Most stocks in the waste management industry have seen steadily growing

revenue and earnings over the past three years. This stock has also seen steady revenue growth over the past three years. In contrast to its peers, this stock's earnings per share have grown at a very high rate over the past three years. Note that WMI's stock's sustainable growth rate is quite a bit less than the rate at which its earnings per share have grown. That means that WMI will probably have to raise additional capital from outside sources at some point if it continues to grow at its current rate.

	Current			5 Year High			5 Year Low		
	WMI	IND	S&P	WMI	IND	S&P	WMI	IND	S&P
P/E	16.40	23.39	21.49	124.22	27.02	39.41	12.62	12.62	14.87
P/ Sales	1.48	1.87	2.88						
P/Book	3.18	2.89	2.94						
P/Cash Flow	7.70	8.80	12.50						
P/Free Cash Flow	25.45	24.65	28.04						

Table 3-14: WMI's Stock Price Analysis

WMI is a posting a Price-to-Free Cash Flow that is slightly higher than the industry average indicative that they are generating sufficient cash to pay dividends or use for other investments. The P/E ratios saw quite large swings between highs and lows and even though the trailing Twelve Months figure is lower than the industry average the overall picture indicates that WMI is experiencing a strong investor following and could capitalize on this positive sentiment.

The percentage of shares owned by institutions is significantly higher and almost doubles the industry average. The high level of demand from this very influential investment community is an affirmation of a healthy company because of their

Institutional Ownership usually come with expertise and size and can influence a lot internal managerial decisions.

Dividend History	2001	2002	2003	2004	2005
Dividend $	0.01	0.01	0.01	0.75	0.8
Year-end Yield %	0.03	0.04	0.03	2.51	2.64
S&P 500 Yield %	1.19	1.55	1.37	1.36	1.42

Table 3-15: Dividend History

WMI's stock has a low dividend yield, which is typical of stocks in its industry. Low dividend yields are typically associated with young companies or companies with considerable growth opportunities. Sometimes even mature companies opt to buy back stock rather than pay dividends, though, because that is more tax efficient for shareholders. Note that WMI's stock's dividend has risen dramatically over the past five years. That is usually a positive sign for investors.

Direct Competitor Comparison

Company	Symbol	Price	Change	Mkt Cap	P/E
Waste Management Inc.	WMI	$35.11	0.60%	$19.19B	$16.78
Republic Services Inc.	RSG	42.17	0.60	5.80B	24.1
Allied Waste Industries Inc.	AW	12.11	1.42	4.02B	26.33
Stericycle, Inc.	SRCL	67.03	-0.03	2.95B	45.23
Waste Connections Inc.	WCN	39.89	1.01	1.83B	22.91
Clean Harbors Inc.	CLHB	28.92	-0.48	561.97	20

Table 3-16: Industry Analysis

	WMI	AW	RSG	Industry
Market Cap:	$19.19B	$4.03B	$5.80B	$89.71M
Employees:	50,000	25,000	13,000	498
Qtrly Rev Growth (yoy):	5.10%	25,000	13,000	7.70%
Revenue (ttm):	13.07B	5.90%	7.30%	79.39M
Revenue (ttm):	13.07B	5.90%	7.30%	79.39M
Gross Margin (ttm):	33.98%	5.73B	2.86B	27.95%
EBITDA (ttm):	3.06B	1.46B	756.00M	9.76M
NI(ttm)	1.18B	141.8M	253.7M	390.0K
EPS (ttm):	2.092	0.46	1.75	0.02
PEG (5 yr expected):	1.73	2.24	1.89	1.69
P/S (ttm)	1.46	0.69	2.1	

Table 3-17: Direct Competitor Analysis

Compared with its major competitors and the industry average WMI is showing considerable financial strength. Its net income at $1.18B is orders of magnitude than its closest competitor RSG ($253.7). Its Earnings per share is higher than its direct competitors and significantly higher than the industry average. WMI's market capitalization is also about four times that of its closest direct competitor.

WACC Analysis

To evaluate the company's financial strength, the cost of common stock, cost of equity, debt and the weighted average cost will be taken into consideration.

WMI beta = 1.38 (from Netscape Money and Business)

Interest rate 10 year treasury bonds = 4.5% = R_{rf}

Market return $R_m = D1/P_0 + g. = D_0 (1+g)/ P_0 + g$

Current Dividend Yield = 2.13% (Compustat) = D_0/P_0

Annual Dividend Growth rate = 6.52%

R_m = 2.13(1+6.51) + 6.51 = 8.78%

RPm = 8.78-4.5 = 4.28%

Thus, the following is the estimated cost of equity, debt and generated WACC:

Estimated Cost of Equity:

Rrf = 4.55%

Rm= 6.58%

b = 0.73

$r(s) = R_{rf} + (r(m)-R_{rf}) * b = R_{rf}$ + RPm *b

= 4.55% + 4.28 %*0.73 =

r(s) = 7.67% = WMI Cost of Equity

Estimated Cost of Debt: cost of debt=rd *(1-T)

- Interest Expense paid for 2005 =$ 496M
- Total Company Debt = $8,165M
- Cost of Debt = $496/$8165 = 0.0607 = 6.07%.
- Market Value of Company Equity = Trading Price * Shares Outstanding =
  - ☞ Shares Outstanding = 552.25M as at Dec 31 '05
- Trading Price = $30.34 as at Dec 31 '05
- Market Value of Equity = 30.34* 552.25M = $16,755.804M
- WACC = $w_d r_d (1-T) + w_{ps} r_{ps} + w_{ce} r_{ce}$
- Preferred Stock = 0
- The Tax rate ~ 31.75%

The Capital Structure is obtained by taking the total debt, equity and assets to obtain the respective weights of measurement for the company.

But $w_d + wce = 1$ ($w_{ps = 0,}$ No preferred Stock)

Per above Total Company Debt = $8,165M

Therefore Wce = 67.2 % and Wd = (1-67.2%) = 32.8%

WACC = 37.8% *6.07 %*(1-31.75%) + 67.2%*7.67%

WACC =0.067 = 6.72%

Free Cash flow is the cash flow from operations that is actually available for distribution to investors, including stockholders, bond holders, and preferred stock holders. A high positive MVA here indicates that the management of WMI has created value for the firm owners.

The Economic Value Added focuses on the managerial effectiveness in a given year. It is an estimate of the business's true economic profit for the year. It represents the residual income that remains after the cost of all capital including equity capital has been deducted. It measures the extent to which WMI has added share holder value.

For the years considered this analysis indicates that WMI posted positive EVAs. This is indicative of a good management team that has consistently added value and which may sustain this trend in the coming years.

A good look at the value drivers: sales growth, Operating profitability (OP), Capital Requirements (CR) and the Weighted Average Cost of Capital (WACC) also indicate high managerial efficiency. The sales growth generally, but not always, has a positive effect on value, provided the company is profitable as is WMI.

The operating profitability measures the after tax profit dollar of sales, always has a positive effect – the higher the better. Third the capital requirements ratio, which measures how much operating capital is needed to generate a dollar of sales, also has a consistent effect - the lower the CR the better, since a low CR means the company can generate new sales in smaller amounts of new capital. Finally the fourth factor WACC, also has a consistent effect, the lower it is the higher the firm's value. According to this analysis from all the indices considered WMI appears to be doing very well. It is posting and continues to promise a positive and increasing Economic Value Added, indicative that it will continue to create wealth for its shareholders. The key value drivers are Operating Profitability (OP), Capital Requirements (CR); WACC also clearly indicate that the firm is rather healthy but it has growth potentials. Staying off debt has helped WMI to keep its cost of capital low and the stock value high. Sales are forecasted sales to continue increasing and short-term debt may rise somewhat but overall; WMI is a very sound company with a strong footing on its growth path.

The company's five year average ROE and ROA are greater than the industry average. The P/E ratios saw quite large swings between highs and lows and even though the trailing Twelve Months figure is lower than the industry average the overall picture reflect that WMI is experiencing a strong investor following and could capitalize on this positive sentiment.

3.4.7.1 Sensitivity Analysis

The sensitivity analysis focus on how various variables will determine the firm's cash flows. A sensitivity analysis is the process of varying model input parameters over

a reasonable range (range of uncertainty in values of model parameters) and observing the relative change in model response. Typically, the observed changes in FCF (this analysis the aggregate of FCF from 2002 to 2005) are noted, given changes in variables like sales, cost of capital, COGS, SG&A, and AR. The variable for which the model is relatively sensitive would require future characterization, and close monitoring as opposed to data for which the model is relatively insensitive.

From the figure below, the line with the steepest slope is the curve for the sales price. This implies that WMI's FCF and hence value of the firm is most sensitive to changes the sales price of their merchandise. And the higher the sales price the higher its FCF. The FCF is also very sensitive to changes in Cost of Goods Sold (COGS), but in this case the FCF decreases with increase in COGS. From the figure the FCF is least sensitive to changes in the AR and the cost of capital. WMI should clearly direct its energy on increasing sales while at the same reducing its variable costs.

Return on Invested Capital (ROIC) is greater than WACC, and therefore WMI is adding value.

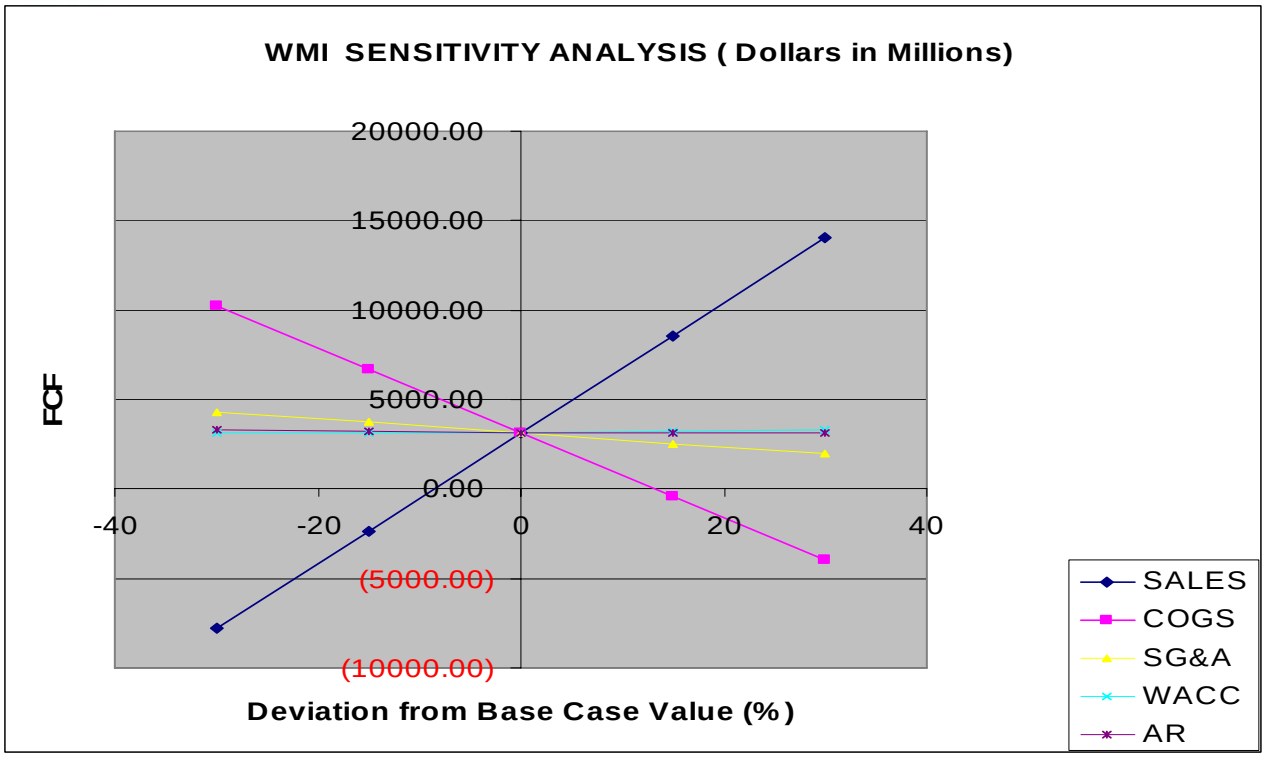


Figure 3-7: WMI Sensitivity Analysis

3.4.8 Summary of Financial Analysis

WMI needs to successfully manage its costs, or its future income would be threatened. In recent years, they have implemented several profit improvement initiatives aimed at lowering its costs and enhancing revenues, and have continued to seek ways to reduce selling, general and administrative and operating expenses. The analysis indicates reduction in SG&A costs; however, WMI needs to come up with better initiatives to manage costs and the effect of the rising trend fuel price increases.

Their operating costs are also threatened by rising employee-related costs and expenses, including health care and other employee benefits such as unemployment insurance and workers' compensation. Significant increases in fuel prices for any

extended periods of time will increase WMI's operating expenses. The price and supply of fuel are unpredictable, and can fluctuate significantly based on international political and economic circumstances, as well as other events outside the company's control. In the past two years, fuel price in the US has seen double digit increases and companies that depend on fuel for their operations are clearly threatened in their profit potential due this trend.

3.5 STRATEGIC ANALYSIS

In this section, an analysis of the current corporate, business, and international strategies implemented at Waste Management, Inc. will be analyzed.

3.5.1 Corporate-Level Strategy and International Strategy

According to Michael Porter, there are three generic strategies that firms can pursue: cost leadership, differentiation, and focus. In response to an economic slow-down, the company has pursued a cost leadership approach by fueling its growth primarily through cost cutting. With the economy recovering and business increasing, the company is now refocusing its strategy into a hybrid of both cost leadership and differentiation as two-sides of the same strategy.

The company aims to fuel growth through margin expansion by both streamlining costs, as well as increasing prices. In order to justify increased prices, the firm must also offer a differentiated service – in Waste Management's situation, the differentiation lies in superior customer service and product integration.

Internationally, the company has applied the same strategy, with little consideration for country-related differences in market preferences and price accommodation. The firm does not possess the scale of physical assets international, that it does in North America and outlying territories.

3.5.2 Business-Level Strategy

On the business level, Waste Management has focused its corporate strategy on developing the waste collection and disposal business segments. The company is applying its strategy to focus on core businesses and related services, while divesting poorly performing assets.

In particular, the company is applying the corporate strategy of margin expansion in the direction of cost cutting. The company is pursuing operational efficiency in the areas of safety, maintenance and productivity. Through best practices and market studies, the collection/disposal segments will be able to best determine the level of price increases in various markets throughout North America.

The strategy of differentiation will direct business level decisions by driving improvements in the way that people make decisions as well as the level of service that field personnel are able to provide, using increase discretionary authority.

3.5.3 Value Chain Analysis

In today's environment, it is becoming ever more critical for firms to develop sustainable competitive advantages. In order for decision makers to develop this advantage, they must also understand their own firm's resources and capabilities, as

well as be able to evaluate these strengths and weaknesses in terms of competitive advantage. Value chain analysis provides strategic decision makers a systematic technique for scanning their internal organizations. By focusing on competitively relevant strengths and weakness, decision makers can better see the potential of these resources and capabilities for adding or subtracting value to the firm's processes. This understanding can then lead to generic strategies that will most likely lead to sustained competitive advantage. (Duncan et al, 1998)

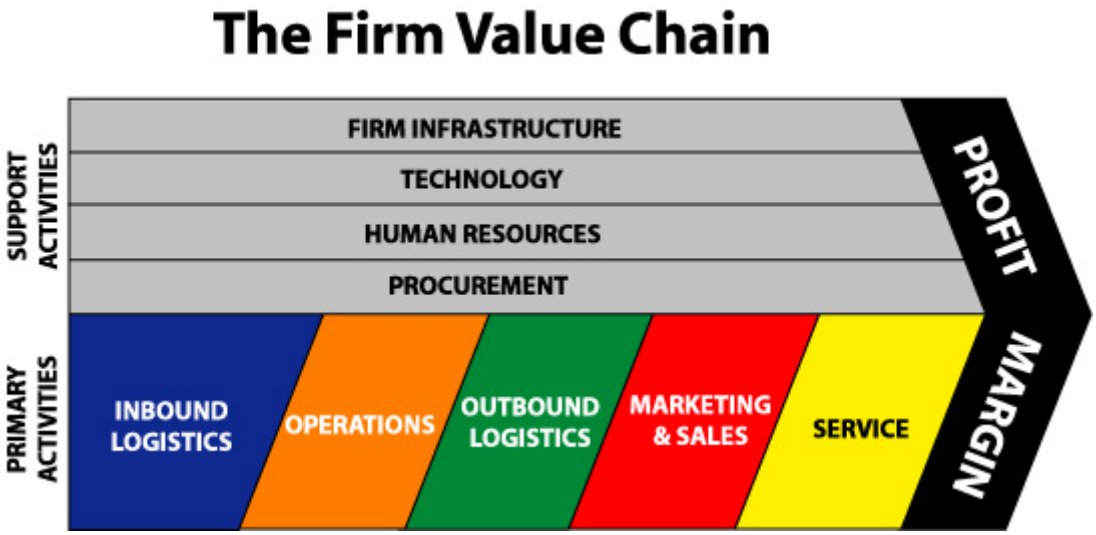


Figure 3-8: Firm Value Chain

Duncan, Ginter and Swayne (1998) present a methodology for systematically analyzing a firm's internal situation which would best clarify relevant strengths and weaknesses. The methodology involves four distinct steps: surveying potential strengths and weaknesses, categorizing organizational differences, investigating the source of competitive advantage, and lastly, evaluating competitive advantage. By applying this model to Waste Management, Inc. we can better evaluate the relationship

of components of the value chain as contributors to the company's competitive advantage.

In Step One, a comprehensive list of strengths and weaknesses is compiled, regardless of relevance to competitive advantage. This is to enable analysts to cover all aspects of a firm's strengths and weaknesses. Step Two involves categorizing these attributes into either resources or capabilities, and evaluating each on the basis of relevance to competitive advantage. Resources are those assets, either tangible or intangible, that a firm uses to perform work. Capabilities are those attributes that enables a firm to coordinate the above-mentioned resources to produce desired results. The criteria used to judge an attribute's relevance to sustainable competitive advantage involves evaluating each on the basis of its value to the firm, its rarity in the industry, the ease with which it is imitated, and its sustainability. Step three involves determining the source of competitive advantage, such as through cost leadership or differentiation, and finally, Step Four evaluates the firm's competitive advantages in terms of possible strategies. A comprehensive list of strengths and weaknesses as related to activities in the firm value chain can be distilled from the previous internal and industry analyses:

Inbound logistics

S1: FleetRoute system – streamline routes, higher efficiency

S2: Distribution and collection network for waste-to-energy facilities – waste streams collected in-house used to fuel clean power plants

W1: Fuel dependant – heavy dependency on fuel for vast collection and transfer fleet leaves firm vulnerable to oil price fluctuations

Operations

S3: Vast physical network – largest number of landfills allows WMI highest coverage nationwide in industry, huge collection fleet and transfer stations

S4: 'Mission to Zero' – safety program ensures lower accident rate and consequently lowers associated costs

S5: In-Plant Services model – offers product integration and improved customer service and efficiency

S6: Waste-to-energy experience – over 100 years experience in pollution control and waste to energy conversion

W2: Landfills – susceptible to frequent governmental regulation changes in reclamation and fill policies.

Human Resources

S7: Emphasis on career development and recruitment

S8: Integrated training programs focusing on culture, ethics, diversity and inclusion, to reinforce new attitudes since the 1999-2000 scandals

Technology development

S9: Implementation of company-wide information management system

S10: State-of-the-art surveillance system at transfer stations and dump sites

Infrastructure

S11: Team 200 – employee team to work with executives in developing strategy and address critical issues

S12: Innovative management, experienced change teams

S13: Disciplined use of new capital investments for growth, strong cash flow – disciplined approach to cost cutting and margin expansion through price increases results in strong cash flow despite weaker economy

S14: Flattened organizational chart, authority delegated to lowest levels allows for quick decision-making and firm agility in response to customer issues

W3: Cumbersome physical network leaves company vulnerable to industry and environmental changes; poor performing assets drive down overall performance

Service

S15: ServiceMachine - monitor customer service performance to retain strong business relationships and secure new business

With all of the firm's strengths and weaknesses identified, we can apply the following assessment model to systematically categorize the activities and judge their

competitive relevance by applying the four criteria: valuable, rare, costly to imitate, and sustainable.

Only those strengths that are valuable, rare, costly to imitate and sustainable contribute to a firm's competitive advantage. Tables A and B in the appendix illustrate those strengths that meet all four of these criteria. To classify as a weakness, activities cannot meet all four criteria, which would render those attributes competitively irrelevant.

3.5.4 Summary of Strategic Analysis

Overall, Waste Management has a strong strategic fit within this industry and should continue to initiate value initiative related to the firm's mission and values. The Company creates added value for clients through a focused strategy, which focuses on cost effective products and services and technology leadership.

3.6 SWOT ANALYSIS

A SWOT analysis is a tool to identify the strengths, weaknesses, opportunities, and threats to an organization. The following is a summary assessing WMI's internal and external issues.

3.6.1 Strengths – Internal

Vast resources

Waste management Inc. is the largest waste management company in the world. As a Fortune 200 company with more than $11.5 billion in annual revenues and over $20 billion in total assets, Waste Management has a storehouse of financial resources. Its vast size allows it many benefits such as cost reductions through economies of scale and the ability to attract specialized staff. Its vast financial presence also puts up barriers to entry within the market place reducing its number of competitors.

The company also has a strong network of operations including 431 collection operations, 381 transfer stations, 286 active landfill disposal sites, 17 waste-to-energy plants, 119 recycling plants and 90 beneficial-use landfill gas projects. These assets enable Waste Management to offer a full range of environmental services to nearly 21 million residential, industrial, municipal and commercial customers.

Fleet route system savings

Waste Management's 'Fleet Route' system helps to improve route density and eliminate redundant routes. At the moment, the company operates about 15,000 residential and commercial routes, with each route costing around $120,000 annually. The board plans to lower the number of routes, drivers, and trucks by about 10 percent, resulting in $180 million in savings. The reduction of 1,500 trucks would result in roughly $240 million in capital savings. There are no plans for driver layoffs, but the number of drivers is expected to decrease through driver turnover, which is currently 20 percent.

Implementation costs for FleetRoute are high, totaling $20 million over the 2003-2004 periods. These one-off costs will be more than offset by savings in 2003; savings are expected to be about $40 million. Added to this are net capital reductions of $135 million in 2003 and $33 million of savings in 2004.

New sales and pricing systems

The company introduced a new profitability and pricing tool in 2003. Since the company's customer churn rate is now less than 10 percent, it should be relatively successful in targeting industrial commercial sales. A new pricing tool was also introduced in 2002, which analyzes each customer's account individually, has managed to increase monthly revenues by $9.8 million.

3.6.2 Weakness – *Internal*

Fluctuations in fuel costs

The price and supply of fuel is unpredictable and fluctuates based on events including geopolitical developments, supply and demand for oil and gas, actions by OPEC and other oil and gas producers, war and unrest in oil producing countries, regional production patterns and environmental concerns. Fuel is needed to run the company's collection and transfer trucks, and any price escalations or reductions in the supply could increase operating expenses and have a negative impact on the company's consolidated financial condition, results of operations and cash flows.

Difficulty of driving volume growth

The company's volume growth will probably remain under pressure unless the US economy improves. The company's expected industrial business push comes at the right time, since volume pick-up in this segment is a much-needed advantage

3.6.3 Opportunities – *External*

Management systems

The company has begun piloting its revenue management system in Phoenix, Arizona, and expanded this during the 2003 into other markets. In early 2004 management expects the pilot to go live in Phoenix, with full rollout in 2004 and completion in 2005. Another control system that launched in 2002 is the new fleet maintenance control system, known as Compass. It has already been launched in 30 locations and was rolled out to around 80 locations in 2003.

Recycling

In 2003 Waste Management Inc. combined the assets and operations of key domestic recycling processors and marketers to form the nation's largest recycling company, Recycle America Alliance. Recycling remains a highly fragmented business in the

U.S. and processing capacity far exceeds demand. The goal of the alliance is to optimize the capacity and improve the profitability of our recycling operations. The company plans to lead recycling into the next generation as a sustainable and profitable partner in the management of waste in North America.

'Mission to Zero'

The 'Mission to Zero' safety program launching soon will focus on businesses with poor safety records. In 2003, for the third year in a row, the company reduced its Occupational Safety & Health Administration (OSHA) injury rate by more than 20 percent. Since the program's inception, it has achieved a total reduction in the OSHA injury rate of over 60 percent, a significant accomplishment for a company of this size. In 2004, the company plans to focus on what is needed to improve safety within specific business units and provide assistance in raising performance levels.

3.6.4 Threats – *External*

Seasonality of business

Waste management's business is seasonal. Traditionally, the company's operating revenues are lower in winter, and this is mainly due to lower volumes of construction and demolition waste, as well as the volume of industrial and residential waste in certain regions decreasing in winter. A winter of extremely poor weather could also cause Waste Management to suspend certain operations.

Regulation

Waste Management Inc is subject to extensive and evolving federal, state or provincial and local environmental, health, safety, and transportation laws and regulations. These laws and regulations are administered by the Environmental Protection Agency and various other federal, state and local environmental, zoning, transportation, land use, health, and safety agencies in the United States and various agencies in Canada. Many of these agencies regularly examine the company's operations to monitor compliance with these laws and regulations and have the power to enforce compliance, obtain injunctions or impose civil or criminal penalties in case of violations potentially adversely affecting the company.

Strong competition

Waste Management Inc encounters intense competition from governmental, quasi-governmental and private sources in all aspects of its operations. In North America, the industry consists of large national waste management companies, and local and regional companies of varying sizes and financial resources. The company competes with these companies as well as with counties and municipalities that maintain their own

waste collection and disposal operations. These counties and municipalities may have financial competitive advantages because tax revenues and tax-exempt financing are available to them. Also, such governmental units may attempt to impose flow control or other restrictions that would give them a competitive advantage. In addition, competitors may reduce their prices to expand sales volume or to win competitively bid contracts.

TOWS Strategy Matrix

		Strengths – S	Weaknesses - W
		1. Vertical integration with decentralized management structure. 2. Vast physical resources & nation-wide network. 3. Strong Cash flow & liquidity profile 4. Market leader in US with strong brand name.	1. High overheads subject company to risk during market slowdowns. 2. Recycling business vulnerable to competitive environment. 3. Landfills offer limited capacity with finite lifespan.
Opportunities - O	1. Technology developments in waste reclamation. 2. Emerging markets in developing countries. 3. Regulations and policies supporting clean power and alternative fuel sources. Increased demand for "green services."	**SO Strategies**	**WO Strategies.**
		1. Expand business into Latin American Countries. (S2, O2, O3). 2. Invest in Green Energy alternatives, such as Wheelabrator and methane reclamation. (S1, S3, O1, O3)	1. **Divest poorly performing assets. (W1, W2, O3)** 2. Consider M&A or JV in foreign countries with less stringent regulations. (W2, W3, O2, O3)
Threats – T	1. Rising fuel costs. 2. Changing government regulations. 3. Steep competition from industry consolidation	**ST Strategies**	**WT Strategies**
		1. **Convert to alternative fuel source, such as Bio-diesel. (S2, S3, T1, T2).** 2. Invest in increased capacity for Wheelabrator.(S2, S3,T1, T2)	1. Reduce corporate overhead (W1, W2, T3). 2. **Divest poorly performing assets. (W1, W2, T3)**

Table 3-18 STOW MATRIX

Adapted from David, F. R. (2002). Strategic management: concepts and cases. 9 ed.: Prentice Hall.

4. CURRENT STRATEGIC AND ALTERNATIVES

4.1 CURRENT STRATEGY AND STRATEGIC FIT

Waste Management's current strategy is to achieve operational excellence in order to be successful for their stockholders. The Company's plan for growth will be grounded in margin expansion from better pricing while continuing to cut costs, and they will apply a disciplined approach to growing their returns from new capital investments. The Company plans to pursue operational excellence by focusing on what they are doing well, particularly by focusing on the areas of safety, maintenance, and productivity. They are committed to finding the best practices throughout their organizations and standardizing those practices and processes throughout the Company.

Their current strategic fit is high and comfortable within the industry. Not only does Waste Management have a significant amount of cash that they could use for emergency or investment, the Company also promotes a healthy environment.

4.2 ALTERNATIVES

Alternative 1: Establishing National Recycle Goals and Packaging Standards

This strategy responds to threats of government regulations and landfills and also simultaneously creates golden opportunities for WMI. By working in conjunction with the government, WMI can possibly minimize the government regulations and create some items to their favor. With increasing consumption, landfills are becoming full and the numbers of available landfills become limited. This initiative

will try to urge consumers to recycle and buy reusable items, and promote the company.

Alternative 2: Deploying Automated Trucks to Pick up Solid Waste (Threat and Strength)

As with other firms in the industry, WMI employs a lot of human labor for its services. This particular resource represents a large piece in WMI's cost and its union, in certain conditions; this would be a challenge for WMI. This alternative favors using WMI's strong cash in hand to deploy fleets of automated pick up trucks in residential-customer segments. This would significantly reduce WMI's dependency on human labor and dramatically lower operating costs contributed by human labor costs.

4.3 RECOMMENDATIONS

In analyzing the factors that WMI faces in the global environment, we have eliminated the preceding alternative strategy choices. At this point, based on our research and analysis, we are presenting two solid recommendations that will enable Waste Management, Inc. to remain competitive within the waste management industry. These recommendations are consistent with the strategic growth options that were presented. Our recommendations are the following:

1. *Convert fleet to alternative fuels*

2. *Expand Waste-to-Energy*

4.3.1 Recommendation # 1: Fully Applying Bio-diesel as Fuel Alternative

Objective

The objective of this recommended action plan is to reduce the firm's dependency on volatile fuel supplies, which threaten the company's strategy of margin expansion. By converting fleet vehicles to an alternative fuel, WMI may realize up to $225 million in annual operating cost savings. (Refer to *Calculation of Savings*)

Calculation of Savings

Each route costs an average of $120,000 annually.

Current cost breakdown for each individual collection route:

$30.000 wage for truck driver

$40.000 maintenance & depreciation expense

$50.000 fuel cost

$120,000 total annual cost per route

The nationwide fleet consists of 7,500 commercial-duty diesel trucks, used for waste collection. Each truck uses an average of 18,500 gallons per year. Annual fuel cost for entire fleet using petroleum-based diesel can be estimated based on the 2005 national average price at $2.69 per gallon, resulting in a total $375 million operating expense. Annual fuel cost calculated using an alternative fuel source, such as B100 - pure vegetable oil based diesel fuel - at the 2005 national average price of $1.12 per gallon, results in a total fuel expense of $155 million. This translates into a 24 percent reduction in operating cost per route.

Description of Recommended Action Plan

Bio-diesel is a diesel fuel made from American resources including virgin vegetable oils (primarily soybeans) or recycled sources (used cooking oil). Unlike fossil based diesel, these resources are renewable and include surplus vegetable oils and waste products. Since the beginning of the 21st century, bio-diesel has been America's fastest growing fuel because it works better than petroleum in existing diesel engines, improves our energy security, cleans our air, and supports our farm economy.

Bio-diesel is stored in much of the same way as conventional diesel. Therefore, adding bio-diesel or bio-diesel blends does not require unusual or additional storage or handling procedures. Bio-diesel, in any form, can be stored in storage tanks comprised of aluminum, steel, fluorinated polyethylene, fluorinated polypropylene and Teflon. Copper, brass, lead, tin and zinc should be avoided, and because bio-diesel can degrade natural rubber over time, this material should not be used.

WMI can buy any bio-diesel from manufactures and store it at existing gas stations. It doesn't have to modify a new store.

Strategy

This recommendation is congruent with existing corporate strategy of margin expansion through cost cutting. For the purposes of this study, we recommend the use of a vegetable-oil based bio-diesel, due to its widespread availability and low capital investment requirements for conversion. While still holding a minor share in total national fuel consumption, domestic bio-diesel supply is consistent, with an annual production of over 30 million gallons in 2003, and thousands of producers across the U.S. (US Department of Energy, 2005) Prices are dependant upon agricultural

production and markets such as soybeans or corn, which are considerably less volatile than global oil markets.

Besides the primary objective of reducing operating expenses for WMI's largest revenue-generating division, conversion to use of alternative fuel sources would engender significant tax incentives and open up the possibility of receiving government incentive grants, such as the U.S. Environmental Protection Agency's Alternative Fuel Conversion Rebate Program in California. (US EPA, 2006)

Finally, the positive public relations that this conversion could generate would be a tremendous asset to WMI, given the sensitivity of environmentally-conscious waste management in today's society. By aligning the firm with industry-frontrunners in the area of environmental sustainability, and "green operations," WMI may further develop its reputational resources.

Action Plan

Conversion to bio-diesel would entail a three-phase plan:

Phase I: Program Development (3 months)

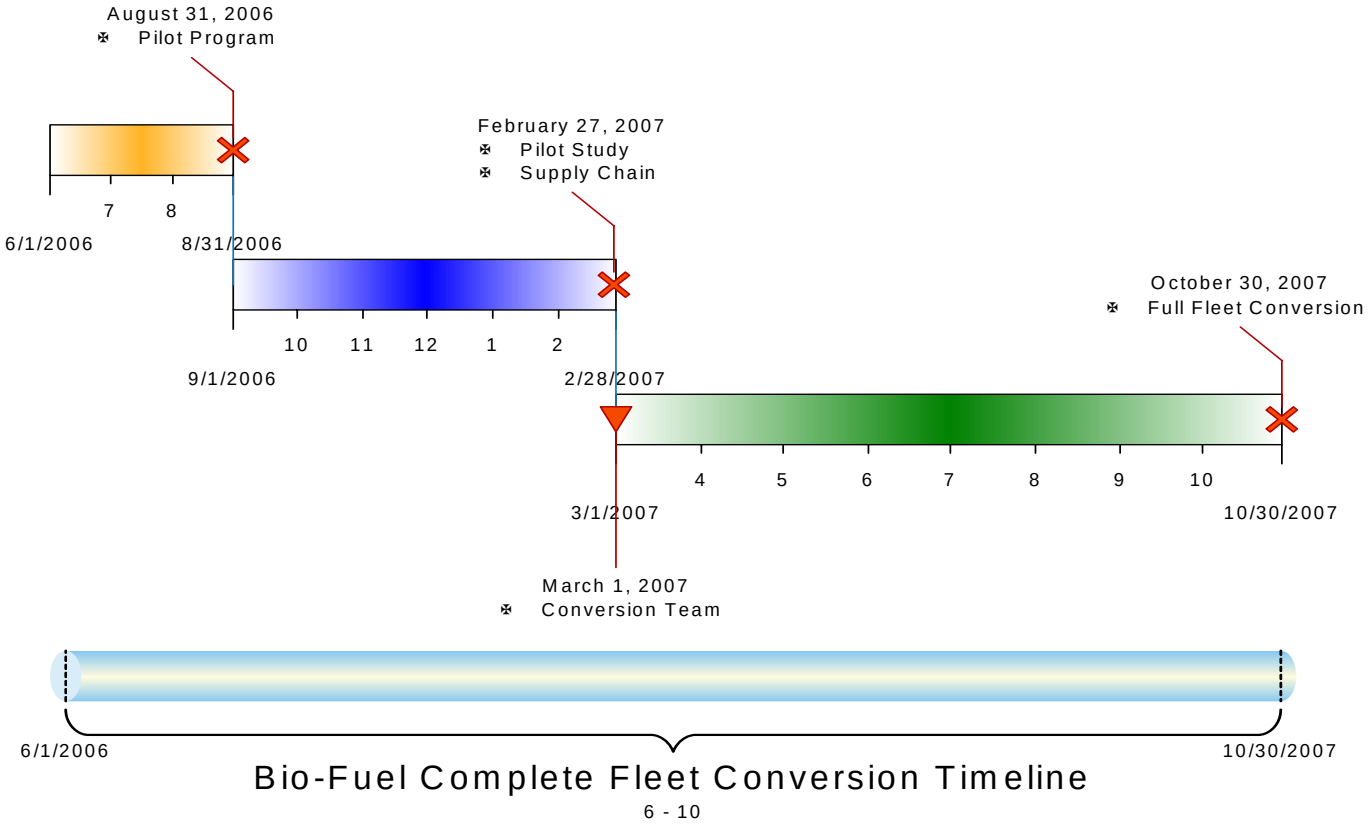
Under this phase, a committee (Conversion Implementation Team) consisting of bio-diesel industry consultants, fleet maintenance engineers, and the Senior Vice President of Operations, Charles E. Williams, would be established to design the conversion process. A comprehensive plan that discusses supply chain management, procurement, storage and dispensing, as well as maintenance, troubleshooting and training should be developed. This phase should take not more than 3 months to complete.

Phase II: Pilot Program (6 months)

For the second phase, the Conversion Team would lead a small scale test conversion in the San Jose, CA, headquarters. 125 fleet collection vehicles would be converted to using bio-diesel, and two 50,000 gallon storage/dispensing tanks would be allocated to providing bio-diesel exclusively. Prior to conversion, the local fleet maintenance department and vehicle drivers would need training on the proper use, safety and maintenance of bio-diesel operations. This phase should comprise of 6 months. All aspects of the conversion are to be documented by the Conversion Team, such that, at the conclusion of the pilot program, a Feasibility Report is to be submitted to the executive committee, to determine progress.

Phase III: Regional Conversion (8 months)

Once the Pilot Program demonstrates feasibility of this conversion, the executive committee will formulate a priority schedule for regional conversion. For the final phase of this conversion program, the Conversion Team will travel to each regional headquarter to facilitate the conversion process. Each region should require no more than two months for full fleet conversion. The Conversion Program document shall be the directing standard operating procedures used during the conversion process. We recommend that the regional conversion begin with the Western region, due to the extremely high petroleum prices and convenient accessibility to suppliers. Full fleet conversion should be accomplished within 17 months from launch of the project.



Milestones

Conversion Implementation Team – at the initiation of Phase I, a committee should be formed to design and execute the conversion project.

Conversion Program Protocols – upon completion of Phase I, the Program Protocols should be fully documented and published for stakeholders of Phase II.

Pilot Feasibility Study – at the completion of Phase II, a completed Feasibility Study must be published and submitted to the corporate executive committee for review. Feasibility Study must demonstrate that the program has achieved a minimum

of 45 percent cost savings, as well as establishment of a sufficient supply chain. Suppliers must exhibit a minimum of 5 years production or supply history and have a minimum capacity of 500,000 gallons per month.

Regional Conversion Schedule – at the start of Phase III, the executive committee must issue a priority conversion schedule delineating the order in which regions will be converted.

Deliverables

Conversion Program Document – reference document describing standard operating procedures for conversion of fleet vehicles to use of bio-diesel, as well as SOP's for routine operations and trouble-shooting. Included are procedures and policies for fleet maintenance department, engineers, procurement, logistics, vehicle operators, and warehousing.

Fuel Conversion Training Program – reference document describing comprehensive training program used during conversion. Included is training for fleet maintenance department, engineers, procurement, logistics, vehicle operators, and warehousing.

Supplier Contracts - established contracts for minimum term of 24 months for all regions, to ensure dependable supply.

Public Relations Strategy for Alternative Fuel Program – strategy for incorporating alternative fuel program into all corporate communications packages, including but not limited to, newsletters (internal and external stakeholders), press

releases, annual reports, shareholder communication, and vendor and customer communication.

Fleet Conversion – full collection fleet conversion to use of bio-diesel within 17 months.

Long Term Effects

- Maximize shareholder returns – by reducing operating expenses, this plan would maximize shareholder returns by ensuring sufficiently healthy operating margin to mitigate other market risks. Fluctuating economic factors are protected against, either by reduced dependency on global oil markets, or by increased free cash flow achieved by significant cost savings. This would again help the reputation of the company by maximizing the shareholders returns, and in turn, creating a 'green' company in congruent with the environmental regulations.

- Building social capital ('going green') – use of alternative fuel sources in routine operations would save thousands of tons of emissions annually, as well as reduce waste and by-products produced in oil & gas industry. Production of bio-fuels are sustainable processes, being "closed-loop" systems, which produce zero toxic wastes.

- Increased margins – cost savings support corporate strategy of margin expansion by increasing operating revenue.

- Industry convergence – as significant cost savings are realized, competitors will also adopt the use of alternative fuels. In this case, WMI need to have new strategy and complete vision in place for a sustained competitive advantage.

Risk Assessment

Regulation:

Federal and state regulations, Energy Policy Act (EPAct) mandate the use of alternative transportation fuels for certain governmental and municipal fleets. Bio-diesel will become more popular as time passes, so the regulations might be changed in the future. In addition, environmental regulations may not be as tight as they are now with the oil industry and fuels.

Price:

The current bio-diesel price is average one-dollar per gallon based on your order. Bio-diesel is made most likely from soybean seed producers so these producers should be monitored carefully and Bio-diesel price is depend on demand on soybean price.

4.3.2 Recommendation # 2 – Capital Expansion in Waste-to-Energy Industry

Objective

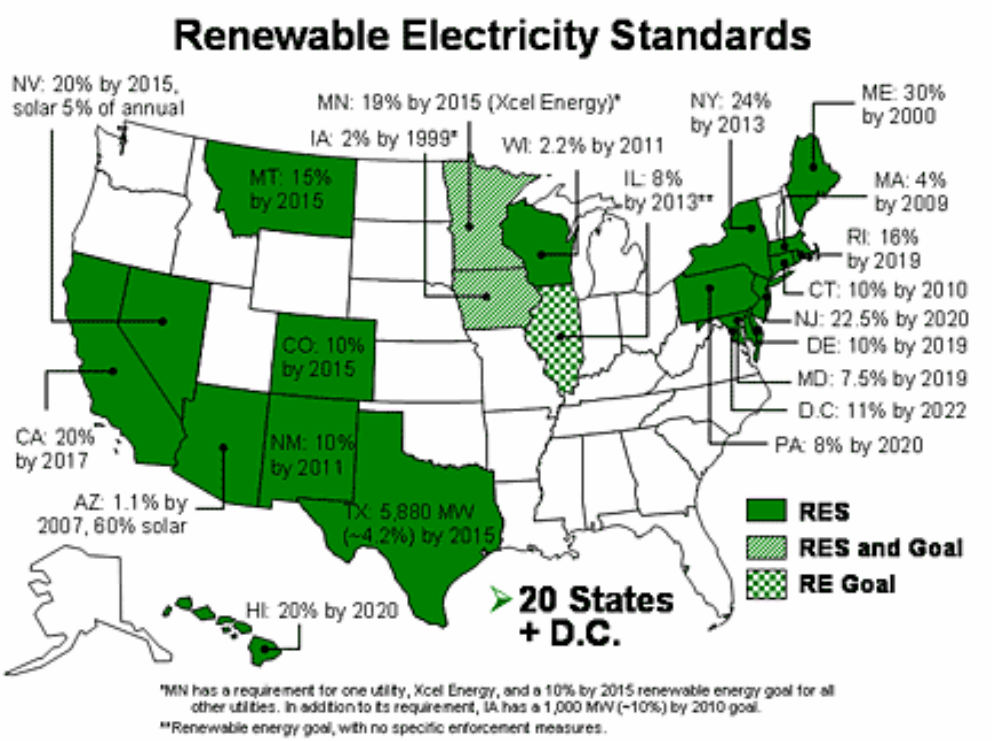
The strategic goal motivating our action plan is to transform the firm into the US industry leader in waste-to-energy production within 5 years, and the global technological leader within 10 years. The process by which we propose to reach these strategic goals is through developing key waste-to-energy resources to become a market leader in the fast-growing, peripheral industry. The objective is to focus capital

growth in the waste-to-energy segment of WMI's business, with the aim of increasing segment revenues by 40%. This action plan calls for a total capital investment of $252 million, which will enjoy a healthy return of 23% with the first full year of operation after plan completion. Total plan timeframe is 30 months.

Waste-to-Energy: A Growing Industry

There are currently 102 waste-to-energy plants operating in the US, converting approximately 33 million tons of waste per year (about 14% of annual total.) WMI only controls 17 of those through its Wheelabrator asset group, processing about 5.5 million tons per year. It is a $10 billion industry that employs more than 6,000 American workers with annual wages in excess of $400 million.

Current governmental regulations have already begun the shift towards clean energy. In a growing number of states, renewable electricity standards (RES)—also called renewable portfolio standards—have emerged as an effective and popular tool for promoting a cleaner, renewable power supply. An RES requires electric utilities to gradually increase the amount of renewable energy resources—such as wind, solar, and bioenergy—in their electricity supplies. To date, 20 states and Washington D.C. have implemented minimum renewable energy standards. (Wiser, 2005) UCS projects that state RES laws and regulations will provide support for nearly 31,100 megawatts (MW) of new renewable power by 2017—an increase of 230 percent over total 1997 U.S. levels (excluding hydro). This represents enough clean power to meet the electricity needs of 20.3 million typical homes. The standards in California, Texas, New York, New Jersey, and Pennsylvania create the five largest markets for new renewable energy growth. (UCS, 2005)



(http://www.ucsusa.org/clean_energy/clean_energy_policies/res-at-work-in-the-states.html)

In the 2006 State of the Union address (White House, 2006) the President set a national goal of replacing more than 75% of our oil imports from the Middle East by 2025. Since 2001, nearly $10 billion was expended domestically to develop cleaner, cheaper, and more reliable alternative energy sources. In the address, the President announced the Advanced Energy Initiative, which provides for a 22% increase in clean-energy research at the Department of Energy (DOE). Such demonstrations of governmental leadership in the areas of environmentally sustainable energy production are also indications of trends for the future of the waste management industry.

WMI disposes of more than 120 million tons of waste annually. Only 8 million tons are recycled and up to 9 million tons are converted to energy. With expanded waste-to-energy facilities, WMI can realize revenues from both ends of the waste

stream – during collection/disposal and in the sales of energy produced from the waste. There are numerous revenue opportunities in converting solid waste to energy: electricity, steam, gas by-products, recyclable ferrous metals, residue ash for landfill cover and road beds.

Immediate Action Plan

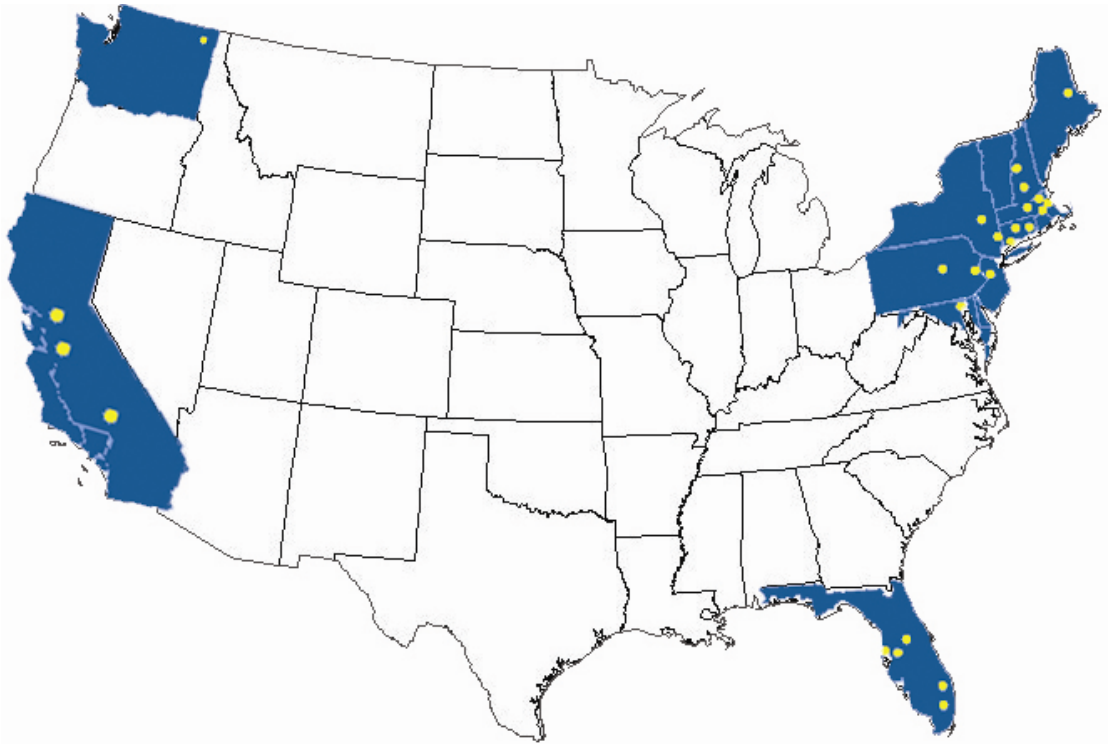
Action	Description	What	How Long
A	Contract Services	Negotiate partnerships with key municipal facilities in NY	12 months
B	Strategic Partnership - Covanta Energy	Expand 1,800 TPD facility in Lee County, Florida	30 months
C	WTE Combustion Project	Invest $200 million in R&D (Wheelabrator) to develop zero-emission combustion technology	8 months

The immediate action plan addresses the initial actions of the firm in pursuing this strategy. The plan comprises three concurrent sections: Contract Services, Strategic Partnerships for Build/Expansions, and Waste-to-Energy (WTE) Combustion Project.

A: Contract Services

The first section of our recommendation involves initiating service contract negotiations with identified strategic municipal facilities. As the social climate trends more and more towards an attitude of environmental responsibility with an emphasis on renewable energy sources, legislators and lawmakers are increasingly issuing policy statements supporting or committing to developing Renewable Energy Standards (RES)

guidelines within their constituency areas. For instance, New York, under Governor Pataki's direction, has become a national leader in the effort to encourage energy efficiency and to promote the development and use of clean energy and renewable energy technologies. The state of New York now invests nearly $300 million annually in energy efficiency and renewable energy programs. (NY Governor.com 2006) Under these influences, municipalities are finding themselves in the position of trying to establish clean power facilities without the necessary expertise, experience or resources. Under these conditions, Waste Management Inc. is in a favorable position to be able to offer firm core competencies and resources in WTE to these municipalities.



Wheelabrator WTE Power Plants (2006)
A map of the firm's WTE facilities shows that its strongest presence is in the New England area, with the largest available infrastructure.

As noted previously, New York is one of the nation's largest markets for renewable energy growth, and it is for both this reason, and the fact of existing WMI presence in the area, that we have chosen New York as an ideal starting point for WMI's push for industry penetration. Through research, we have identified three counties in New York state that have demonstrated potential for establishing service contracts in municipal facilities: Westchester, Rockland and Orange counties. For the purpose of this recommendation, we selected Westchester County's facility, due to the overwhelming demand for clean energy of local residents, which exceeds current production capacity. The plan recommends approaching the county with a proposal to manage the construction of 636 TPD (ton per day) capacity expansion to the existing 1,200 TPD waste-to-energy facility located in near Utica. In return for utilizing firm resources and capabilities in this regard, WMI will accept a service agreement to operate and maintain the expanded facility through 2014.

B: Strategic Partnerships

The next section of our recommendation focuses on establishing strategic partnerships to build new facilities or expand existing under-capacity or out-of-date power plants. Again, we chose to base our early growth initiatives in areas with existing WMI plants to capitalize on area expertise and resources already at hand. We identified a waste-to-energy plant in Lee County, Florida, which is severely under-capacity. The population has double the state growth rate over the period 2000 – 2004 (US Census Bureau, 2006) and the state has enacted tough RES guidelines, which the municipalities are struggling to reach.

We identified Covanta Energy Corporation, a subsidiary of Covanta Holdings Company, to be a strong potential partner. Covanta Energy is a local service provider, which constructed and has been operating the existing facility since 1994. The 1,800 TPD Lee County facility requires an 836 TPD capacity expansion, which would allow it to continue to provide local residents with a renewable source of energy for the next 25 years, based on current estimated population growth rates and state-enacted RES goals. The expansion would require a capital investment of $52 million, and, if plan is implemented, construction of the expansion could begin within 18 months with completion estimated to occur within 12 months from ground breaking. Covanta shows consistent earnings growth with a heavy debt burden. (Covanta Energy.com, 2004) WMI's strong cash flow combined with Covanta's existing contract resources in that county should prove to be advantageous for both parties.

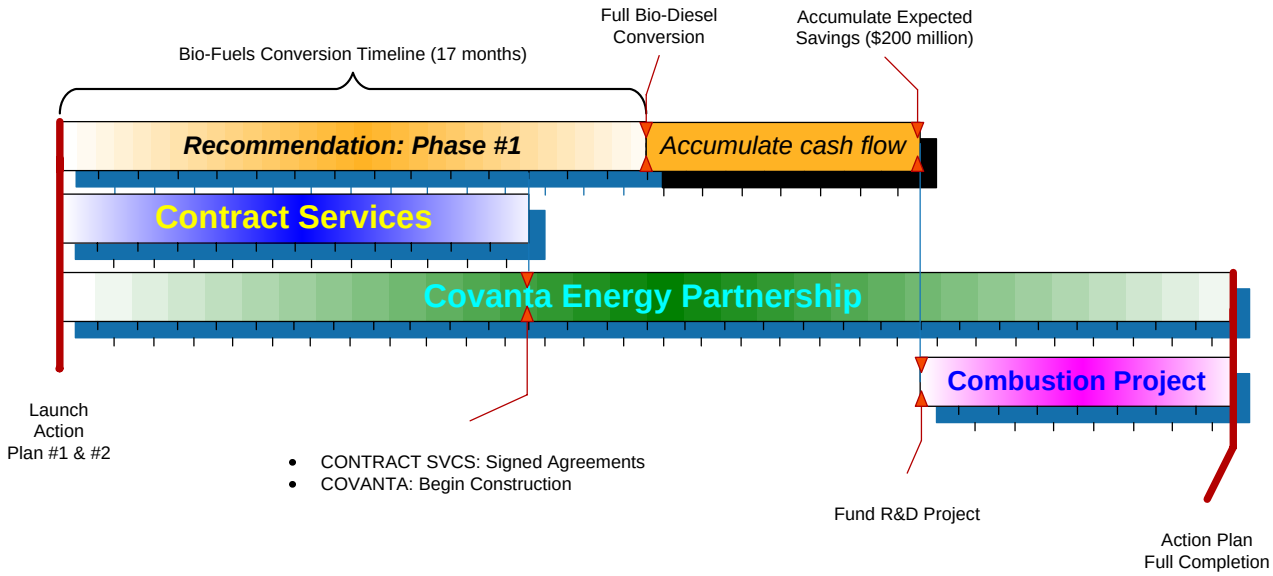
This segment of the action plan recommends that Waste Management Inc. propose a partnership in the expansion, with WMI providing the capital investment, and assuming the new service agreement through 2024, after Covanta's contract expires in 2014.

C: WTE Combustion Technology Project

The final section of our recommendation is probably the portion of our recommendation that will contribute the most towards ensuring WMI's future competitive advantage in the WTE industry. This section of the action plan is the Combustion Technology Project, which will require an initial investment of $200 million, which will fund research and development of WTE technologies into viable production assets.

Current WTE technology, while spurring the growth of an emerging market, nonetheless offers many disadvantages in its process. For instance, the burning of many biomass materials releases carbon into the atmosphere, which is a leading cause of global warming. In many areas in the Northwest, local areas have “burning bans”, not for burning waste, but to put a halt on burning wood in fireplaces during those times when pollution and emissions have been deemed especially high. (EPA, 2003) The ash by-product of the waste-to-energy process is also considered a highly toxic material that cannot simply be released into the environment. Currently, however, treated ash can be used as a covering to remediate landfills, since the ash possesses qualities similar to that of concrete, hardening to provide a water-resistant barrier between the landfill and nearby aquifers. The research that this investment will fund also works towards finding more efficient combustion technologies to reduce the amount of ash by-product by burning more cleanly. These technologies are already being developed, such as gasification, a process of burning waste as extremely high temperatures resulting in lowered emissions and virtually no ash by-product. All these characteristics translate to lower costs for operating plants, as they continue to deal with increasingly strict RES legislation.

This portion of the action plan has the objective of improving energy production efficiency by a target amount of 35%, and reducing emissions in all existing plants by 50%. This portion of the action plan will be fast-tracked to completion, with an estimated 8 months from start of the project.



This Gantt chart illustrates the concurrent nature of the recommended action plans. Particularly noteworthy, is the simultaneous start of both the first recommendation (Conversion to Bio-diesel) and the second recommendation (Growth in Waste-to-Energy.) This schedule will allow the firm to accumulate cash savings derived from the fuel conversion, and divert funds to invest in both the Expansion and Technology projects. This timeline will allow a cash savings of $132 million to be realized in time for the start of the Combustion Technology portion, after an initial capital funding of $52 million towards the Covanta Partnership.

Deliverables

By implementing these complementary action plans, Waste Management Inc. can expect to increase WTE segment revenues to $1.09 billion per year, representing an increase of 40% over 2005 figures. This increase in production capacity will stem from both the added facilities acquired through service contract negotiations in New York, as well as the strategic partnership in Florida. In addition, capacity will be further heightened by the increase in energy production efficiency developed through the Combustion Technology project.

Expected outcomes of this action plan includes the addition of two WTE power plants to the Wheelabrator group – Westchester Country and Lee County – with an overall increase in production capacity of 4,472 TPD. Current capacity is at 24,340 TPD, and this increase represents an 18% increase in plant capacity alone.

These figures can be derived from calculating the expected production levels to increase from current Wheelabrator production of 933 megawatts to 1.3 billion kilowatts after successful implementation of this plan. At the national average electricity rate (2005) of 8.3 cents/KWH, this translates to approximately $1.0892 billion in revenues. The increased capacity will power approximately 1.5 million households, an increase of 40% from 900,000 households in 2005. National average energy consumption for US households is 10,215 KWh annually. (Department of Energy, 2005)

Long Term Effects

- Mitigate risk from rapidly changing socio/political climate – by diversifying into an emerging industry that is in line with growing regulatory environmentalism, WMI may best protect itself from the risk of increased costs in non-renewable waste disposal operations. The regulatory climate surrounding landfills, remediation, permit procurement and other issues pertaining to the operations of landfills and other waste disposal facilities threaten WMI long term success.

- Building social capital ('going green') – utilizing existing biomass present in waste streams that the firm is already collecting contributes to a sustainable and environmentally sound corporate policy. Burning bio-mass to produce energy would potentially save thousands of tons of emissions annually, as well as reduce waste and by-products produced in the fossil fuel energy industry.

Favorable Long Term Outcome Possibility:

WMI becomes a world leader in waste-to-energy technology; replacing the Middle East and other oil producers in control much of the world economy.

Un-favorable Long Term Outcome Possibility:

Waste-to-energy technology never materializes, as new sources of fossil fuels are discovered. The investment in waste-to-energy still maximizes the use of a reliable and available source of fuel that the firm is already collecting – solid waste.

Environmentalists and public sentiment will continue to revolve over the contamination of our world and the using up of natural resources; WMI's ability to offer integrated waste management services that includes conversion to energy and

recycling is in line with its current strategy of developing superior customer service and integration to increase its pricing margins.

Risk Assessment

This strategy addresses a number of threats:

❶Fuel costs – take advantage of rising fuel costs and scarcity of fossil fuels

❷Regulatory changes – eventually landfills will no longer be an option to disposing of waste. Firms that have foreseen the future will be prepared with alternative waste disposal/ waste management technologies and facilities in place.

❸Environmental impact and public relations

❹Technology changes – other firms are already moving in this direction. With WMI's extensive physical resources in waste management, the firm is positioned to become an industry leader is managed with enough foresight.

This strategy utilizes a number of core capabilities:

❶Waste-to-energy technology.

❷Sufficient experience dealing with inorganic growth.

❸Nation's largest solid waste collector with most landfill properties (access to fuels)

❹Systems integration - Handling technologies, collection logistics and infrastructure are important aspects of the biomass resource supply chain.

❺Innovation – this strategy taps the company's ability to creatively recreate itself into the waste management firm of the future.

5. CONCLUSION

In conclusion, after analyzing global environment surrounding Waste Management Inc., we discovered a significant driving force involving rapidly changing socio/political arena which could trigger strategic change in the industry. In addition, we identified key success factors which the firm should take into serious consideration while structuring strategic decision and continuous improvement programs. Of special note is the benchmark capability of effective operating cost management with regard specifically to transportation. These influencers led to our recommendations regarding fuel conversion and capital expansion into waste-to-energy. By adjusting fleet operations, the firm is better able to develop its ability to mitigate risk from volatile oil prices. And in diversifying into the waste-to-energy industry, WMI faces a future in an emerging industry, with lessened risk exposure due to the changing nature of the environmental services sector. We strongly recommend immediate implementation of our action plans, which will help to ensure Waste Management Inc.'s continued competitive advantage and industry leading position.

6. REFERENCES

1. http://www.wastemanagement.com/

2. Waste Management Form 10K, 2004

3. Bureau of Economic Analysis, US Department of Commerce. http://www.bea.gov/bea/industry/gpotables/gpo_actions.cfm

4. A Look Back. *Waste News.* January 2, 2006. Vol.11 Issue 19, p.22.

5. 2005 In Review—Memorable Quotes. *Waste News.* January 19, 2005. Vol. 11 Issue 17, p. 15-17

6. Waste Management Inc., SWOT Analysis. October 2005. p.1-10. Business Source Premier.

7. Waste Management to Cut Jobs. By Jim Johnson. *Waste News*. August 2005. Vol. 11, Issue 7, p.1-21.

8. Waste Firm Hires New Chief. By Bill Hensel, Jr. Houston Chronicle, Houston, Texas. March 9, 2004. www.houstonchronicle.com

9. http://www.hoovers.com/waste-management/--ID_15374--/free-co-factsheet.xhtml

10. http://www.epa.gov/epaoswer/osw/laws-reg.htm

11. http://www.hoovers.com/free/ind/factsheet.xhtml?HICID=1297&cm_ven=PAID&cm_cat=BUS&cm_pla=IND&cm_ite=Solid_Waste_Services_&_Recycling

12. http://www.manufacturingweek.com/app/homepage.cfm?appname=100084&moduleid=2090&campaignid=21182+

13. http://www.mswmanagement.com/msw_0007_history.html

14. http://www.investor.reuters.com/business/IndustryOverview.aspx?industry=WASTEM&target=/business/bussecindustry/bussecindfake/bussecindoverview

15. http://today.reuters.com/stocks/overview.aspx?ticker=WMI.N

16. BW Online | February 1, 2002 | Salomon Lowers Waste Management to "Outperform." http://www.businessweek.com/investor/content/feb2002/pi2002021_880

17. James A. Anderson, BW Online | September 6, 2000 | A Tidy Profit in Garbage? http://www.businessweek.com/bwdaily/dnflash/sep2000/nf2000096_518

18. BW Online | May 11, 1992 | BURYING TRASH IN BIG HOLES—ON THE BALANCE SHEET. http://www.businessweek.com/archives/1992/b326549.arc.htm?campaig

19. BW Online | March 23, 1998 | CAN WASTE MANAGEMENT CLIMB OUT OF THE MUCK? http://www.businessweek.com/archives/1998/b3570077.arc.htm?campa

20. BW Online | April 13, 1992 | THE UGLY MESS AT WASTE MANANAGEMENT. http://www.businessweek.com/archives/1992/b326153.arc.htm?campaig

21. BW Online | November 24, 1997 | WASTE MANAGEMENT TURNS ON THE HEAT. http://www.businessweek.com/archives/1997/b3554122.arc.htm?campa

22. BW Online | January 24, 1994 | CLEANING UP AFTER WASTE MANAGEMENT. http://www.businessweek.com/archives/1994/b335584.arc.htm?campaig

23. Waste Management Services: Overview | Reuters.com http://www.investor.reuters.com/business/IndustryOverview.aspx?indus

24. Waste Management Services: Overview | Reuters.com http://www.investor.reuters.com/business/IndustryDmDescr.aspx?indust

25. Business & Company Resource Center – Waste Management Industry Overview. http://galenet.galegroup.com.ruby2.uhv.edu/servlet/BCRC?vrsn=149&l

26. Business & Company Resource Center -- Air and Water Resource and Solid Waste Management Industry Overview. http://galenet.galegroup.com.ruby2.uhv.edu/servlet/BCRC?vrsn=149&l

27. Business & Company Resource Center – Waste Management – Solid Waste Collection Industry Overview. http://galenet.galegroup.com.ruby2.uhv.edu/servlet/BCRC?vrsn=149&l

28. Business & Company Resource Center – Environmental Remediation Industry Overview. http://galenet.galegroup.com.ruby2.uhv.edu/servlet/BCRC?vrsn=149&l

29. Fraud at Waste Management. American Institute of Certified Public Accountants, Inc. New York, NY. 2003, 2005.

30. Business & Company Resource Center – Refuse Systems Industry Overview. http://galenet.galegroup.com.ruby2.uhv.edu/servlet/BCRC?vrsn=149&l

31. Business & Company Resource Center -- Garbage into gold. Forbes, Jan 22, 1990 v145 n2 p48(2) http://galenet.galegroup.com.ruby2.uhv.edu/servlet/BCRC?locID=txshr

32. Republic Services, Inc. Reuters.com. http://today.reuters.com/stocks/overview.aspx?ticker=RSG.N

33. Allied Waste Industries Inc. Reuters.com. http://www.investor.reuters.com/IS.aspx?ticker=AW.N&target=/stocks/financialinfo/statements/incomestatement/quarterly

34. Stericycle Incorporated. Reuters.com. http://www.investor.reuters.com/IS.aspx?ticker=SRCL.O&target=%2fstocks%2ffinancialinfo%2fstatements%2fincomestatement%2fquarterly

35. Games are for Losers. *Harvard Business Review*. Mar. 2002, Vol. 80, Issue 3, p. 64-65.

36. *Waste Management News*. Topix.net. http://www.topix.net/business/waste-management.

37. National Solid Wastes Management Association. http://www.nswma.org

38. *First Research*. Waste Management Industry Profile Excerpt. http://firstresearch.com/Industry-Research/waste-maagement.html

39. *The '' Environmental Justice'' Movement,* By C. McGowan, Randy Young, Kyle Beall, p. 1-26

40. *''UTAH Solid Waste Management'' ,* by Utah Solid & Hazardous Waste Control Board, September,1994, p. 1-52

41. Global and National Population overview http://www.census.gov/ipc/www/world.html

42. DATAMONITOR (May 2004). Global Environmental Services – Industry Profile. Reference Code: 0199-1015. Published: May 2004

43. http://hoovers.com/republic-services/--ID__57152--/free-co-factsheet.xhtml

44. http://hoovers.com/allied-waste/--ID__15676--/free-co-factsheet.xhtml

45. http://hoovers.com/waste-connections/--ID__56446--/free-co-factsheet.xhtml

46. US Department of Energy - Office of Energy Efficiency and Renewable Energy. (2001) Biodiesel Offers Fleets a Better Alternative to Petroleum Diesel. Technical Assistance Fact Sheet. May 2001. Accessed on April 5, 2006 from http://www.eere.energy.gov/cleancities/blends/pdfs/biodiesel_fs.pdf

47. US Department of Energy - Office of Energy Efficiency and Renewable Energy. (2005) Biodiesel Fact Sheet. May 2005. Accessed on April 5, 2006 from http://www.eere.energy.gov/cleancities/blends/pdfs/5450.pdf

48. US Environmental Protection Agency – Global Warming Resource Center, Financial Assistance for California. (2006) Accessed April 30, 2006 from http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterFundingStatesCA.html

49. http://www.biodiesel.org/

50. http://www.haysoil.com/biodieselmain.htm

51. http://afdc3.nrel.gov/altfuel/biodiesel.html

52. http://www.haysoil.com/MSDS/Biodiesel_fs.pdf

53. http://www.consolidatedbiofuels.com/docs/Executive%20Summary.pdf

54. Hitt, M.A., Ireland, D.R., & Hoskisson, R.E. (2005). Strategic management competitiveness and globalization. United States: South-Western.

55. Cook, C.W. & Hunsaker, P.L. (2001). Management and organizational behavior. New York: McGraw-Hill.

56. Franssen, 2004

57. http://www.ga.wa.gov/EAS/CWM

58. http://www.epa.gov/reaonline

59. http://www.epa.gov/Region5/defs/html/cerck.htm

60. http://www.epa.gov/r5water/cwa.htm

61. http://www.medceu.com/course_no_test.cfm?CID=1467

62. Duncan, et al

63. David, F.R. (2002). Strategic management: concepts and cases. 9th edition. Prentice Hall.

64. Wiser, R. “The Impact of State Clean Energy Fund Support for Wind Power”. Lawrence Berkeley National Laboratory (LBNL). WINDPOWER 2005 Conference, May 18, 2005.

65. Union of Concerned Scientists (UCS). (2005) Renewable Electricity Standards at Work in the States – Fact Sheet. Accessed on April 30, 2006 from http://www.ucsusa.org/clean_energy/clean_energy_policies/res-at-work-in-the-states.html

66. http://www.ucsusa.org/clean_energy/clean_energy_policies/plugging-in-renewable-energy-grading-the-states.html

67. http://www.eia.doe.gov/emeu/recs/four_states/recs_4populated_states.html

68. http://www.state.ny.us/governor/press/05/aug1_05.htm)

69. http://www.ny.gov/governor/patrecord/environment.html

70. http://quickfacts.census.gov/qfd/states/12/12071.html

71. http://www.covantaenergy.com/wte.asp

72. www.epa.gov/ttn/chief/ap42/ch01/final/c01s09.pdf

73. (http://www.eia.doe.gov/emeu/recs/four_states/recs_4populated_states.html)

7. APPENDICES

Table A: ASSIST Chart Assessment of Internal Factors for Strategic Advantage					
Strength/ Weakness	**Valuable**	**Rare**	**Costly to Imitate**	**Sustainable**	**Resource or Capability**
S1	X	X	X	X	Capability
S2	X	X	X	X	Resource
S3	X	X	X		Resource
S4	X				Capability
S5	X	X	X	X	Capability
S6	X	X	X	X	Resource
S7	X				Capability
S8	X				Capability
S9	X		X	X	Resource
S10	X	X	X	X	Resource
S11	X				Capability
S12	X	X		X	Resource
S13	X				Resource
S14	X	X	X	X	Capability
S15	X				Capability
W1					Resource
W2			X	X	Resource
W3			X		Resource

Table B: Assessment of Internal Factors for Strategic Advantage							
Strength/ Weakness	**Valuable**	**Rare**	**Costly to Imitate**	**Sustain-able**	**Resource or Capability**	**Potential Source of Comp. Advantage (Unique, Cost, N/A)**	**Location on Value Chain**
S1	X	X	X	X	Capability	Cost	Inbound Logistics
S2	X	X	X	X	Resource	Cost	Operations
S3	X	X	X	X	Capability	Unique	Operations
S4	X	X	X	X	Resource	Unique	Operations
S5	X	X	X	X	Resource	Unique	Technology
S6	X	X	X	X	Resource	Unique	Infrastructure
S7	X	X	X	X	Capability	Unique	Infrastructure
W1					Resource	N/A	Inbound Logistics
W2			X	X	Resource	N/A	Operations
W3			X		Resource	N/A	Infrastructure