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# Injecting Value into Plastic Goods Manufacturing

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*Even in today's market, plastic goods manufacturers can take important steps to increase the value of their business by improving their revenue, cost, and capital management practices.*

**First  
Hawthorn  
Group**

**Management Consultants**

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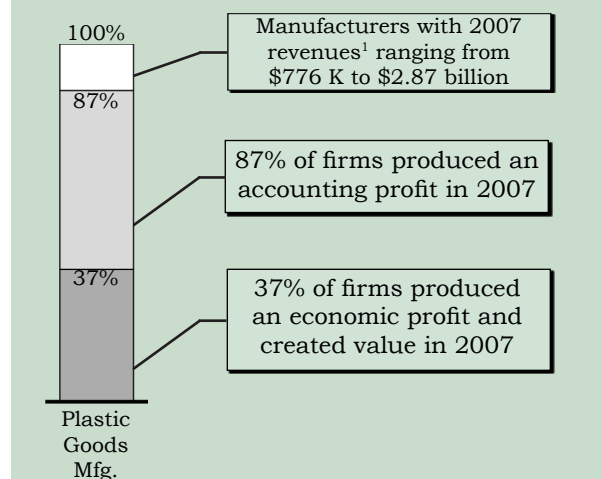
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## Introduction

Despite the recent economic upheaval in many industries, we believe the market for plastic goods is likely to continue into the indefinite future. However, as manufacturers compete for decreased demand in the marketplace, they must carefully monitor the efficiency of their business models. Questions about which customer markets to serve, what products to offer, and how to manage their operations are more critical than ever.

### EXHIBIT 1: THE MAJORITY OF MANUFACTURERS AREN'T CREATING VALUE

Percent of Firms Analyzed



Source: First Hawthorn Group Analysis, SEC Filings, Standard & Poor's

In fact, present economic conditions can serve as a catalyst to discovering new ways to protect the value of a plastic goods manufacturing business. We believe manufacturers can move towards leading positions in their respective markets by focusing their attention on improving their revenue, cost, and capital management practices.

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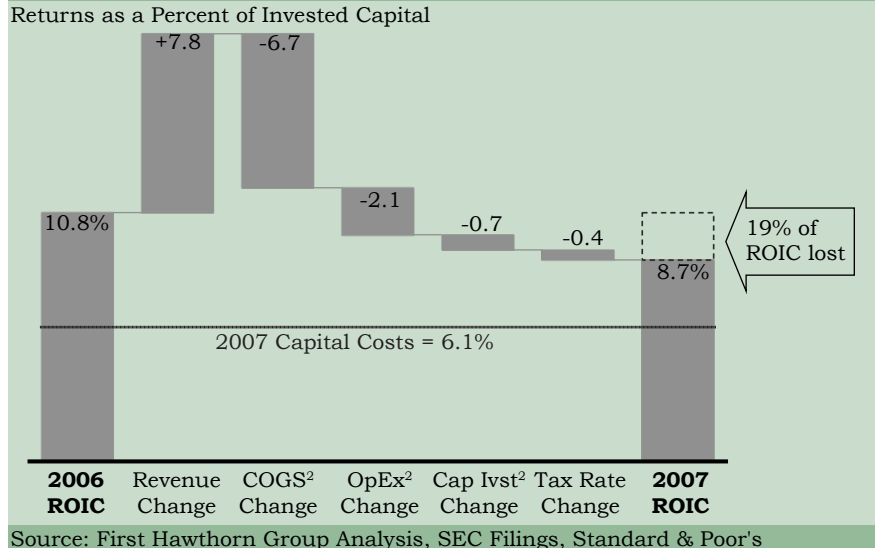
## The Science of Value Creation

Unfortunately, only a third of plastic goods manufacturers reviewed in this study made their business more valuable in 2007<sup>1</sup>. Approximately 87% of publicly traded plastic goods manufacturers produced an accounting profit in 2007, but only 37% of publicly traded plastic goods manufacturers produced an economic profit and created value for its owners in 2007 (*Exhibit 1*).

Why didn't all the firms who produced an accounting profit make their business more valuable? There is an important difference between a manufacturer's accounting profit and its economic profit. Accounting profit is the traditional measure of what is left in the manufacturer's pocket after deductions for direct and overhead costs, interests, and taxes. However,

<sup>1</sup> 2007 is latest data available as of publication

**EXHIBIT 2: THE INDUSTRY LOST 19% OF ITS ROIC<sup>1</sup> FROM 2006-2007**



above a firm's related capital costs is the goal of managers trying to make their business more valuable. When a business's ROIC is below the related capital costs they are losing value. An analysis of the ROIC for publicly traded plastic goods manufacturers from 2006 to 2007 reveals the key challenges facing the industry in 2007. ROIC quantifies how well the manufacturers generated a return relative to the capital invested in their businesses.

accounting profit doesn't completely consider the manufacturer's costs of its capital (generally composed of some amount of debt and some amount of equity). Commitments to debt holders can be reported as interest and are often covered in accounting profit, but equity holders will likely demand a return on their investment as well. Economic profit is what is left in the manufacturer's pocket after deductions for direct and overhead costs, taxes, and the costs for capital. Because only economic profit considers the commitments a manufacturer owes to pay both debt and equity holders, it represents the true profit produced and is the best measure of value creation.

Another useful method for measuring performance in making a business more (or less) valuable is calculating Return on Invested Capital (ROIC). Producing the highest possible ROIC

The 2007 ROIC of 8.7% is 19% less the 2006 ROIC of 10.8% (*Exhibit 2*). In other words, the industry lost 19% of its ability to create a return on its invested capital compared to a year earlier.

***"In other words, the industry lost 19% of its ability to create a return on its invested capital compared to a year earlier."***

Through an examination of the business drivers influencing ROIC, manufacturers can discover important sources of value creation and compete more effectively in the plastic goods manufacturing industry.

1 ROIC = Return on Invested Capital = ((Revenue - COGS - Operating Expense) x (1 - Tax Rate)) ÷ Invested Capital  
 2 COGS = Cost of Goods Sold, OpEx = Operating Expenses, Cap Ivst = Capital Investments

## Measuring Business Performance with ROIC

A manufacturer's emphasis on traditional performance metrics such as gross margin, tax expenses, and capital investments, while important, don't provide an accurate measure of value creation. An emphasis on ROIC provides a comprehensive performance metric and accounts for traditional performance metrics (gross margins, tax expenses, capital investments, among others) collectively. ROIC also accounts for the interactions between traditional performance metrics and their combined impact on value creation. Too often, a spotlight is focused on improvements in a single performance metric without regard to the impact on the rest of the business. For example, a decrease in the cost of goods sold (COGS) will carry implications for the manufacturer's tax burden, capital efficiency, and capital structure. ROIC gives the manufacturer insight into the ultimate value that was created or destroyed.

ROIC is determined by five core business drivers: revenue, cost of goods sold (COGS), operating expenses, capital investments, and rate of taxation. As manufacturers craft new strategies to manage these five ROIC business drivers, they manage their ability to create value. In practice, Exhibit 2 demonstrates how these five business drivers influenced the decrease in the industry's ROIC from 2006 to 2007. Improvement in revenues was the single greatest contribution to growing ROIC. However, related increases in COGS, operating expenses, capital investments, and rate of taxation caused

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the ROIC to recede by 19%.

## Taking a Strategic Approach to Value Creation

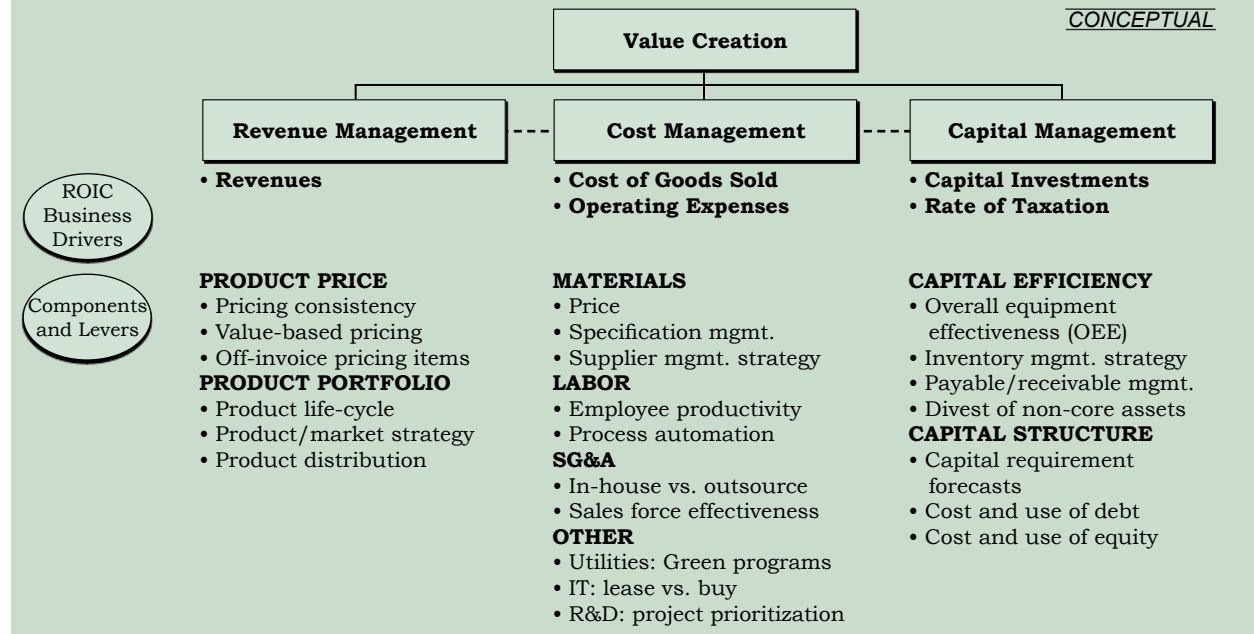
Working with leading firms across several industries, First Hawthorn Group has developed a Value Creation Framework for the plastic goods manufacturing industry. The framework enables a strategic approach to managing the five ROIC business drivers across three business competencies: revenue management, cost management, and capital management (*Exhibit 3*). Significant improvements in a business's value can be made when the framework is integrated into the manufacturer's strategic and business planning.

As manufacturers develop future strategies concentrated on value creation, their strategies must address a number of key issues on the market horizon including:

- fluctuation of petroleum prices
- off-shore competitors
- emerging product concepts
- general economic conditions

The fluctuation of petroleum prices has introduced new levels of price volatility for plastic resin. Manufacturers can address this through

**EXHIBIT 3: A STRATEGIC APPROACH TO REVENUE, COST, AND CAPITAL MANAGEMENT OPTIMIZES A FIRM'S POSITION TO CREATE VALUE**



Source: First Hawthorn Group Value Creation Framework, past client experience

cost management improvements focused on the efficiency and responsiveness of their cost structure. Potential initiatives includes: competitive sourcing, developing resin specifications appropriate to the intended finished goods, and improved supply chain design.

The emergence of off-shore plastic goods manufacturers within the US market creates a cost disadvantage for US-based manufacturers. Manufacturers can address this through revenue management initiatives designed to help select the best markets and products for achieving competitive advantage. US-based manufacturers should launch parallel cost and capital management initiatives to shed non-essential expenses and investments.

Emerging product concepts in bioplastics and plastics as metal replacements represent promising new markets worthy of attention from top management. Unfortunately, these product concepts often require additional incubation before they can be considered cost competitive with standing industry economics. However, ongoing revenue management initiatives to explore expansion into niche or growing markets of demand can help manufacturers take advantage of these opportunities as they surface.

Historically, the health of the plastic goods manufacturing industry is tied to the health of the economy. Present economic conditions will likely drive overall demand down over the next several quarters. During periods of economic

downtown, manufacturers focused on value creation will launch revenue management initiatives to select which customer markets to serve, which product lines to concentrate on, and which customer and product markets to avoid. Further, cost management initiatives to decrease the manufacturer's cost structure can curb erosion of profit margins.

\* \* \*

Manufacturers are best positioned to improve the value of their business by establishing initiatives targeted to exploit the improvement levers pertaining to their business competencies in revenue management, cost management, and capital management (*Exhibit 3*). These initiatives often produce impress improvements in ROIC and enhance their position to create value. Our staff has experience partnering with many types of organizations to drive bottom

line impact through various value creation initiatives. One revenue management initiative helped a global integrated oil and gas company realize up to \$70 million in revenue enhancement. A cost management initiative at a global financial services company led to cost savings of up to \$40 million. A pro-bono project driving a capital efficiency initiative at a non-profit organization led to up to 20% improvement in volunteer work efficiency.

As market forces continue to reshape the landscape of the plastic goods manufacturing industry, manufacturers must be ready to compete in new market realities or risk significant destruction of value. They must use the strategic lens of value creation to understand how to enhance the value of their business and create new platforms on which to build competitive advantage.

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### About the Author

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### About First Hawthorn Group

**First Hawthorn Group** is a management consulting firm that assists top management on issues of business strategy, operations, and organization.

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