



5-2006

Bobcat Company: Strategic Management of A Compact Contruccion Equipment Manufacturer, 2005

Timothy Bock

[How does access to this work benefit you? Let us know!](#)

Follow this and additional works at: <https://commons.und.edu/theses>

Recommended Citation

Bock, Timothy, "Bobcat Company: Strategic Management of A Compact Contruccion Equipment Manufacturer, 2005" (2006). *Theses and Dissertations*. 5223.
<https://commons.und.edu/theses/5223>

This Independent Study is brought to you for free and open access by the Theses, Dissertations, and Senior Projects at UND Scholarly Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UND Scholarly Commons. For more information, please contact und.common@library.und.edu.

**BOBCAT COMPANY: STRATEGIC MANAGEMENT OF A
COMPACT CONSTRUCTION EQUIPMENT MANUFACTURER,**

2005

by

Timothy J. Bock

Bachelors of Science, North Dakota State University, 1995

Independent Study – BAdm 997

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Business Administration

Bismarck, North Dakota

May

2006

ARCHIVAL COPY

University of North Dakota Libraries

INTRODUCTION

Bobcat Company has a rich history of manufacturing equipment in North Dakota. The work ethic of the employees, productivity of the plants, and innovative spirit are the main reasons for the company's success. As Bobcat Company nears 60 years in business, many changes have taken place, and the company will need to continue to transform itself in order to survive the next 60 years. In an effort to better understand the strategic management of Bobcat Company, the following topics will be discussed in detail: company history, organizational structure, marketing, operations, and quality. This case study of Bobcat Company in 2005 will be concluded by studying the ecosystem, Porter's Five forces analysis, and the market forecasts.

COMPANY HISTORY

E.G. Melroe founded Melroe Manufacturing Company in 1947 to produce two popular farm implements, the combine pick-up and harrow. The combine pick-up was a valuable implement which enabled farmers to efficiently "pick-up" the windrow off the ground and move it into the combine's feeder chains with minimal grain losses. The Melroe harrow is a farm tillage implement used mainly for leveling top soil and weed control. Destiny became reality in 1958, when the Melroe brothers purchased the rights to a small loader product in Rothsay, Minnesota. A year earlier, Cy and Louis Keller invented the first skid steer loader for a local turkey farmer. The loader consisted of 3 wheels, 2 of which were hydrostatically driven, a loader arm, and an open air operator

TABLE OF CONTENTS

INTRODUCTION.....	1
COMPANY HISTORY.....	1
A DIVISION OF INGERSOL RAND	2
FUNCTIONAL ORGANIZATION	3
MARKETING AND SALES.....	6
OPERATIONS.....	13
QUALITY.....	14
DISTRIBUTION CHANNEL.....	15
ECOSYSTEM OF THE CONSTRUCTION EQUIPMENT INDUSTRY.....	16
PORTER'S FIVE FORCES ANALYSIS.....	17
FIVE ELEMENTS OF STRATEGY.....	18
COMPETITIVE ANALYSIS	19
MARKET OUTLOOK	21
CONCLUSION.....	24
APPENDIX A : Market Share 1976-2004	27
APPENDIX B : Porter's 5 Forces Analysis	28
APPENDIX C: Five Elements of Strategy	30
APPENDIX D: Skid Steer Loader Competitive Analysis.....	31
APPENDIX E: 2005-2006 Outlook for Construction Equipment	32
REFERENCES	33

seat. Melroe introduced the skid steer loaders in 1958 as models M200, and later the M400 and M444.

In 1969, Melroe Manufacturing was purchased by Clark Equipment Company, and operated as the Melroe Division. Ownership by Clark Equipment meant more capital for expanding plant capacity, much needed at that time. In 1973, Melroe acquired Kirschmann Manufacturing Company, in Bismarck, North Dakota. The popular Spra-Coupe was added to the Melroe product line-up. The Spra-Coupe was a self-propelled vehicle designed for farm use to make chemical applications on cropland.

The final major acquisition to date took place in 1995 when Ingersol Rand (IR) Company of Woodcliff Lake, New Jersey purchased Clark Equipment, including Melroe Company. The Spra-coupe line was sold-off, and Bobcat Company was formed. Parting from the volatility of the agricultural industry, Bobcat Company focused on the construction equipment industry. Today, sales of Bobcat construction equipment has surpassed \$2.4 Billion, and commands 40% market share in skid steer loaders. A graph showing Bobcat's market leadership in skid steer loaders for years 1978-2004 is shown in Appendix A.

A DIVISION OF INGERSOL-RAND

There is a natural synergy of Bobcat Company within the IR portfolio. IR is well diversified with many end markets including golf carts, utility vehicles, climate control, security and safety, and industrial solutions. Recently, IR was named to the Businessweek "S&P Top Ten Portfolio", remarking IR will see "expected improvements

in several end-markets” (Shea). IR stock reached \$74 as of May 2006 with a 12-month target of \$100 per share. A 2-for-1 stock split occurred in Sep 2005. By March 2006, IR stock reached \$42 per share.

FUNCTIONAL ORGANIZATION

Bobcat Company operates under a “functional” business unit organization. This is consistent with a semi-large business unit such as Bobcat/IR. As a business unit of Ingersol Rand Corporation, Bobcat Company reports all business activities on a semi-quarterly basis. All major business activities are communicated thru the president and CEO of Bobcat Company, Mike Ryan. Upper echelon managers report directly to Mr. Ryan, including: Human Resources, Engineering, Sales and Marketing, Finance, Planning and Development, Parts and Marketing Services, Supply Chain. Figure 1 shows the organizational matrix under which Bobcat Company operates.

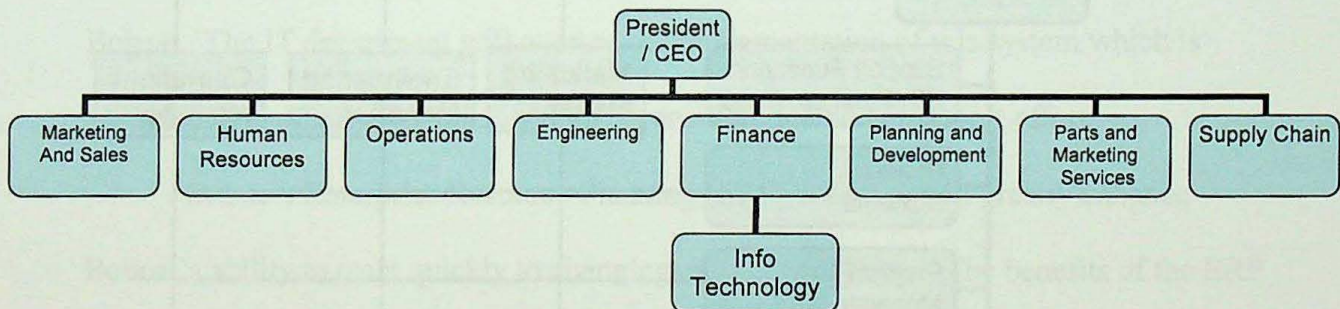


Figure 1. Bobcat Company organizational matrix follows a “Functional Structure”.

A functional organization has the following strengths: economies of scale within departments, development of functional expertise and specialization, and best in organizations with few products or services. Weaknesses include: slow response time to

environmental changes, hierarchy overload from decisions collecting at the top, poor coordination across the top, and a restricted view of organizational goals (Harrison, 303).

Since new product development is a top priority at Bobcat, an organizational structure which provides optimum communication on project teams is essential. Lower level managers and employees are “project-matrix” type. This structure is a combination of functional and product/market-group structure. The project-matrix structure is complex in nature, and necessary for a complex environment, shown in figure 2 (Harrison, 306). Some of the benefits of a project-matrix organization include: easier communication; ability to handle larger amounts of information, and more flexible uses of people and equipment. Disadvantages include: confusion amongst employees regarding who has the authority on a particular decision, and power struggles.

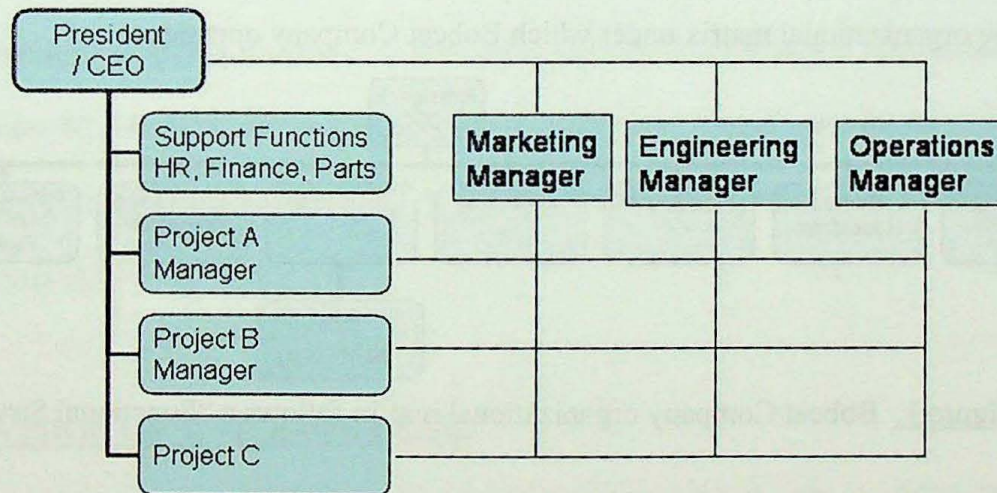


Figure 2. Project-Matrix Structure

An example where a project team matrix was utilized was the J-series project, which involved upgrading the current skid steer product to new market requirements,

including electronic hand controls. Team members from all functional areas of the company were assigned to the project. This cross functional team was driven by the "voice of the customer". All customer input obtained from the field was communicated to the team by the marketing representative. The engineering and manufacturing team members implemented the specific marketing requirements concurrently, which allowed the plan to be developed by all team members and not passed from department to department for review. Project matrix organizations increase project cycle times, because of the clear interaction between team members. Timing is critical on every program, including the J-series.

Note the responsibility for Information Technology (IT) under Finance in figure 2. IT is structured under Finance because of the importance that the Oracle ERP system has within this department. Oracle implementation will significantly affect all departments within Bobcat, but will have profound effects on the financial reporting at Bobcat. The IT department will oversee the implementation of this system which is expected to continue thru 2005, and then transition into an IT support effort.

Oracle's Enterprise Resource Planning (ERP) software will greatly enhance Bobcat's ability to react quickly to changing market conditions. The benefits of the ERP system can further be explained by a simple example like production planning. Typically, production planning is based from a schedule created by the marketing and sales group who commits to an annual production plan at the beginning of the year, the group meets monthly to determine the short term adjustments to the production schedule due to differences in actual demand versus forecasted. Production planners procure

components based off a production schedule, and typically see lead times in the range of 2 to 20 weeks for purchased components. For example, engines and hydraulic components are imported from overseas suppliers. Planning and timing is critical. The Oracle ERP system will streamline this function in its entirety, automatically forecasting and ordering components. The production planners will manage the Oracle production system rather than conduct scheduling and ordering. Further discussion on the ERP implementation and benefits will be discussed in the operations section.

Next, the individual organizations within Bobcat Company will be discussed in detail. In particular, operations and marketing/sales organizations will be highlighted due to the high degree of change in the market place, and the organization's need for adapting to changing market conditions.

MARKETING AND SALES

North America

The marketing and sales organization operates under the following structure, see figure 3.

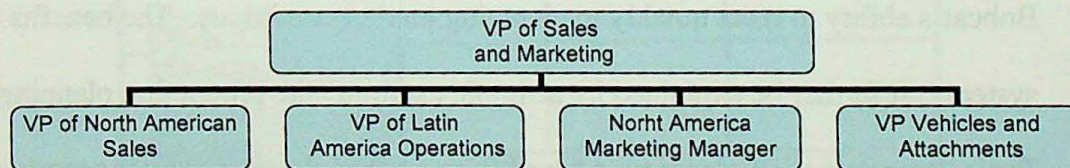


Figure 3. Marketing and Sales Organization

Since North American Sales are a significant part of Bobcat Company's revenue, that organization will be discussed in further detail. North American Sales includes 3 regional sales managers, and 19 district sales managers who report to the regional sales managers. This organization is structured according to geographical regions of North America. The eastern region is small and more concentrated, mostly due to high sales volume in the upper Northeastern region, including Washington, DC, New York, and Philadelphia. The southern region covers dealerships from Texas to Florida. The Midwest and Western United States is combined as the western region. Less dense populations in the Midwest and Northwest allow this large geographic area to be combined into one region.

North American sales of skid-steer loaders (SSL) have been growing at a rapid pace since 1992. Figure 5 shows Bobcat SSL units sold versus the industry. The SSL market made a slight correction in 1990-1991, which was attributed to the recession that plagued the entire US economy until 1992. During the period of 1992-2000, the SSL industry witnessed a phenomenal growth rate of 14.1% CAGR. During the same time period, Bobcat SSL sales grew by only 13.1% CAGR, as shown in figure 4 (Richard-Johnson). The difference in growth rate is a concerning trend because maintaining market share is a top priority at Bobcat. The difference in growth of Bobcat versus the loader industry can be explained by the expansion of compact loader equipment product lines by major competitors: Caterpillar and John Deere. Caterpillar did not offer a SSL product prior to 1999. John Deere introduced a new loader product in the mid to late 1990's. They previously outsourced their loader product to another manufacturer, New

Holland. Increased low end sales by “no name” competitors and importers in the US may have also had an effect on the growth of the loader industry in 1990’s.

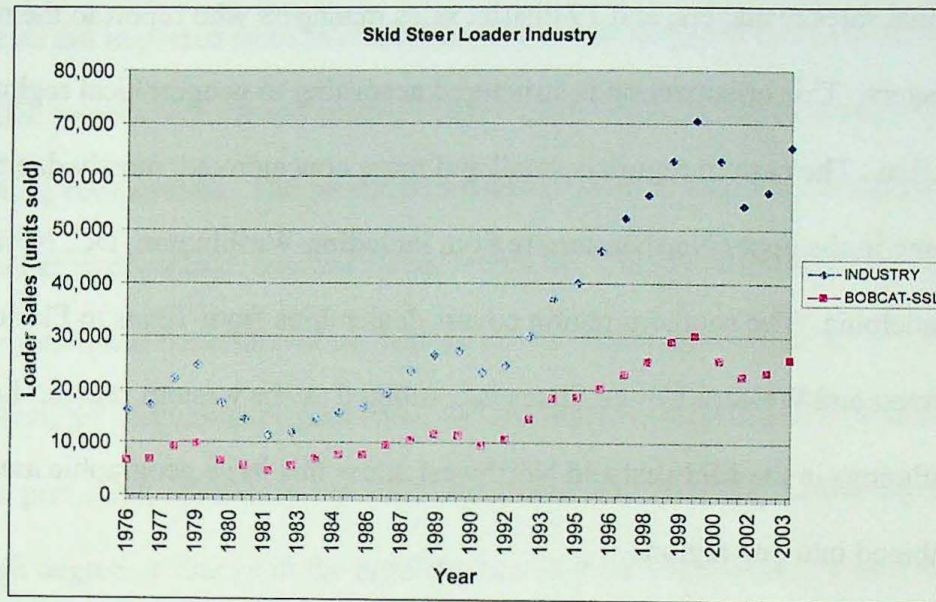


Figure 4. Bobcat Skid Steer Loader Sales compared to the Industry

Typically, Bobcat has been cautious about NOT building excess inventory or over extending factory capacity. Historically, over production and excess inventory has been an area of concern at Bobcat. An economic downturn in the early 1980’s wreaked havoc on Bobcat, as they failed to react to the changing market conditions and produced excess inventory. The result was layoffs and idle factory. Note the chart in Figure 5, which shows the difference in the growth rates between Bobcat and the entire skid-steer loader industry. Figure 5 shows that changes in sales of Bobcat skid-steer loaders are amplified compared to the changes in sales of the entire skid-steer loader industry. For example, in 1981 the SSL industry declined 29%, while Bobcat loaders decline at 34%. In 1994, the SSL industry grew by 25%, while Bobcat loader sales accelerated by 35%.

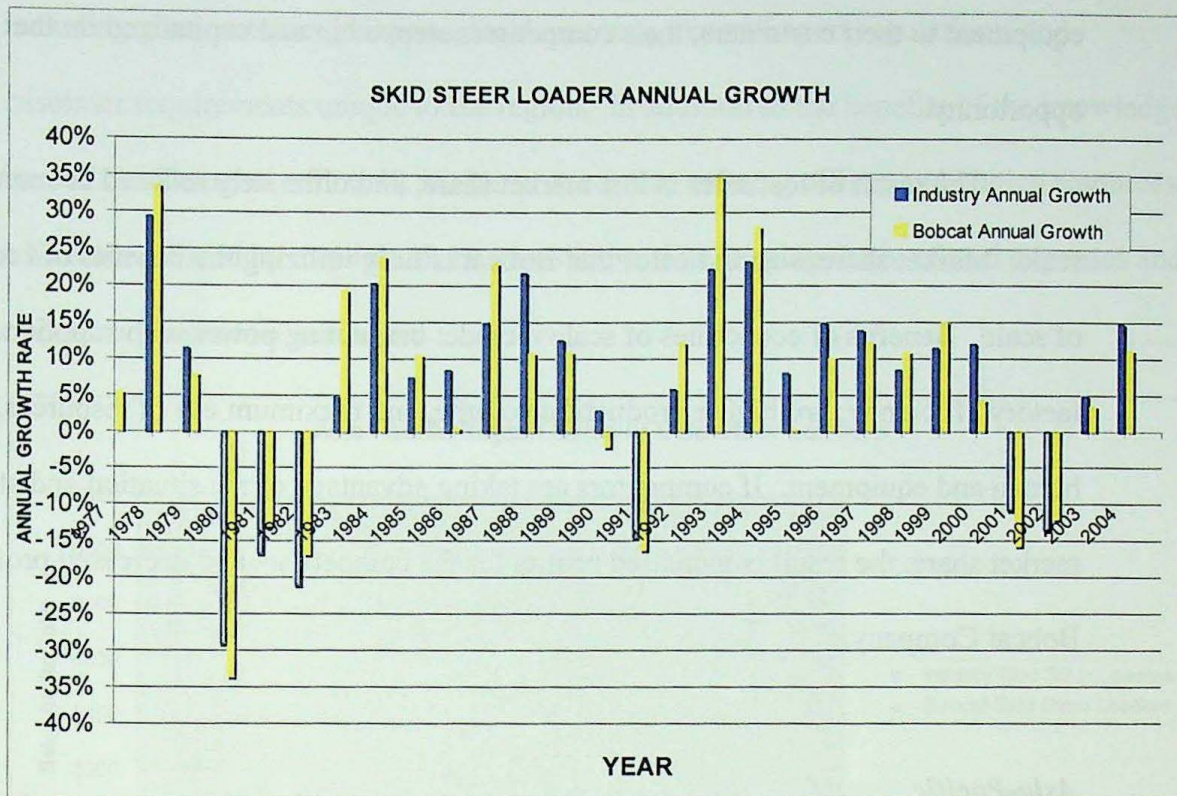


Figure 5. Annual growth rate of the Bobcat skid-steer loader vs. industry.

A major contributor to the large swings in Bobcat sales is under capacity, over capacity, and sub-optimal inventory levels. Examples of factory capacity requirements include: factory floor space, machining centers, weld robots, etc. During times of decreasing sales, much emphasis is put on cost control and even downsizing with less emphasis on capacity levels for the next economic up tick. For example, in 2004, the industry grew at a rate of 15% while Bobcat lagged with only 12% growth. The primary contributor was factory under capacity due to the prior year's sales decline. One could conceive that the cost of the lost sales due to under capacity could cost the company far more than having slightly more production capacity. While Bobcat was unable to deliver

equipment to their customers, their competitors stepped in and capitalized on the opportunity.

The result of lost sales is lost market share, and ultimately reduced economies of scale. Market share is an indicator that Bobcat is fully utilizing the benefits of economies of scale. Benefits of economies of scale include: bargaining power with suppliers, factory efficiency thru higher production volume, and maximum use of resources, both human and equipment. If competitors are taking advantage of the situation and stealing market share, the result is increased profits for the competitors and decreased profits for Bobcat Company.

Asia-Pacific

Ingersol-Rand was one of the first foreign companies to establish operations in China, even before they were open to investment. This is why Bobcat Company's marketing, sales, and operations group for the Asia-Pacific region is part of Ingersol Rand's shared service group. The IR shared services group consists of multiple IR business units, including Bobcat, which offer support activities for multiple IR products. Bobcat product sales support and training is located at the IR Asia-Pacific headquarters in Shanghai, China. All details specific to the Asia Pacific region are addressed by personnel at this office. Employees at this location have dotted line responsibilities between Bobcat and Ingersol Rand.

This type of operations sharing offers synergies within IR and Bobcat in multiple ways. For example, the sales office in Shanghai offers valuable business knowledge,

including government regulations, local customs, export/import regulations, and customer requirements unique to the region. In addition to the benefits of the knowledge base at the Shanghai office, IR is able to maximize existing offices and human resources which are utilized by multiple IR business units, thus keeping the overhead expenses and overall expenses to a minimum.

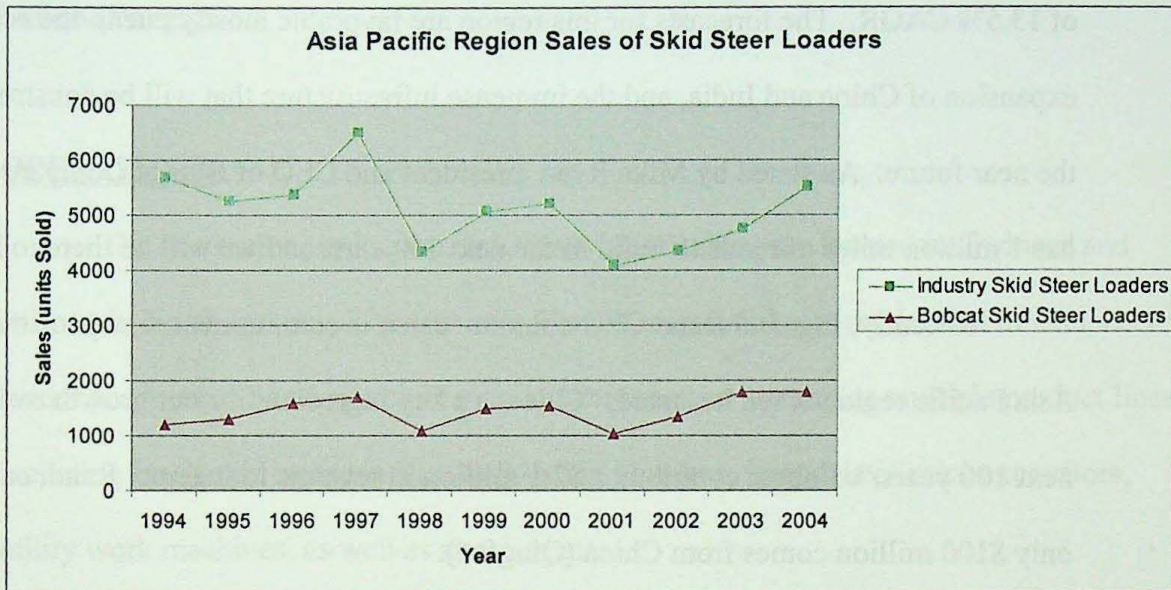


Figure 6. Asia Pacific Sales of Skid Steer Loaders (data courteous of Bobcat Company)

Sales in Asia Pacific have not been stellar, although a steady increase in sales is forecasted in the near future, as shown in Figure 6. Since sales in Asia Pacific are not considered strong at this point, the investment in this region is more of a strategic move for Bobcat. For example, if one considers expansion into Asia Pacific from a NPV standpoint, it is likely the NPV is less than zero if only short term sales and cash flows are considered. The time and financial investments required to set up operations in China are significant since it takes several years to establish trusting relationships with

local businesses. But if one considers the “real option” of establishing operations for the long-term in a high growth market like China, the NPV for Bobcat in China would likely be much greater than zero.

In 2005, Bobcat skid steer loader sales made up 32.5% of sales in the Asia Pacific region. Since the global recession of 2001, sales of loaders have been growing at a rate of 13.5% CAGR. The forecasts for this region are favorable mostly due to the economic expansion of China and India, and the immense infrastructure that will be constructed in the near future. As stated by Mike Ryan, president and CEO of Bobcat Company, “China has 1 million miles of roads to build in the next 10 years, and we will be there to help.”

Recently, Ingersol Rand CEO communicated his commitment to expansion in the Asia Pacific region when he stated, “China is a key ingredient for our growth over the next 100 years.” Bobcat contributes \$2.1 million in revenue to Ingersol Rand, of which, only \$100 million comes from China (Qingfen).

Rental Segment

Another contributor to the difference in growth rates between Bobcat and the industry shown in Figure 5 can be explained by Bobcat’s participation in the rental market. Historically, the rental market is extremely cyclical and sensitive to the economy. The rental market is a significant part of Bobcat’s sales and is a very reactive market. All of Bobcat’s 580 dealers participate in some sort of rental program. Orders are reduced very quickly when an economic downturn occurs as dealers and independent rental stores do not want to add more equipment if the rental demand is deteriorating.

Industry revenues of earthmoving rental equipment are estimated at \$4.4 billion in 2004 (Yengst). Statistics indicate that 60% of all skid steers sold in 2004 were moved into a rental situation. 75% of mini-excavators were rental and 50% of track loaders were rentals. Of the \$4.4 billion, skid-steer loaders contributed \$1.4 billion in rental revenue, mini-excavators contributed \$0.548 billion, and compact track loaders contributed \$0.225 billion (Yengst).

OPERATIONS

The two major production facilities within Bobcat are located in Gwinner and Bismarck, North Dakota. The Gwinner Plant is responsible for production of skid steer loader products. The Bismarck Plant manufactures and assembles multiple product lines including small skid steer loaders, walk-behind loaders, 9 models of mini-excavators, utility work machines, as well as attachments.

Both plants have experienced under capacity issues since the economic recovery started in 2003. Excavator and skid steer loader sales have exceeded forecasts in the last 2 years. Employees have been working overtime every weekend for the last 2 years. Plants are moving out some smaller product lines, like attachments, to make room for increased production of excavators and loaders. Supplier components represent another area of concern regarding under capacity. Many suppliers were not able to react fast enough to fill all the production orders, resulting in component outages.

In an effort to address the above mentioned capacity issues, several key initiatives are being implemented. The 1st is Lean Manufacturing. Lean manufacturing and kaizen

training and implementation have accelerated since 2003. The principles of lean manufacturing were pioneered by Toyota after World War II, and include philosophies such as "doing more with less and less". As stated by Bobcat CEO, Mike Ryan, "I would rather invest in training people on lean manufacturing, rather than spend money on buildings and equipment...lean manufacturing will allow us to build more with less." Lean manufacturing has a significant impact on operations and supply management, but also improves other departments like product development and aftermarket parts.

The 2nd part of addressing the capacity issues includes moving smaller product lines to make room for expansion of loader and excavator manufacturing capacity. Recently, an idle IR plant in North Carolina was tooled up for attachment manufacturing, with a focus on high volume bucket attachments. The bucket attachment was previously located at the Gwinner plant.

QUALITY

Quality initiatives at Bobcat have been expanded in recent years. Part of being a market leader includes being highly committed to quality. Quality goals for the year 2004 include minimizing warranty claims to less than 1% of sales. This is a hefty, but attainable goal, since prior years warrantable have remained around 2.5% of sales. This quality initiative is part of Bobcat's strategy to maintain market leadership through quality.

Supplier quality constitutes a large portion of the overall quality effort. The top tier suppliers at Bobcat are required to be registered ISO 9000 operations. By having this

certification, ISO 9000 companies have documented quality processes in place, and are in a position to supply high quality components because of this certification. Also, suppliers are asked to supply an initial sample inspection report (ISIR) on all new components prior to production in an effort to verify their processes are within the process control limits. Process capability studies are also asked of Bobcat's suppliers.

DISTRIBUTION CHANNEL

Bobcat has about 580 independently owned North America dealers; 140 European dealers and 50 Latin America and Asia Pacific dealers. Since there are approximately 5,000 construction equipment dealerships in North America, Bobcat dealerships are considerably outnumbered. This may be considered cost effective and efficient having far fewer dealerships compared to the competition, but this may also explain the lost market share. CNH, Cat, and Deere represent about 2,000 of the 5,000 total dealerships in North America.

Another significant issue that has developed in the distribution channel is the introduction of new products. Historically, dealerships have focused on products like the skid steer and excavator. However, with the introduction of new products like the telehandler, loader backhoe, and utility work machine, the Bobcat dealerships find it is easier to existing products, versus pushing a new product. The dealerships need to focus resources on the new products to move them. For example, a skid steer is commonly sold over the phone, while a utility work machine will be demoed over weeks, which takes

time and resources. Essentially, the dealerships are successful, but going thru the same growing pains as Bobcat Company itself.

ECOSYSTEM OF THE CONSTRUCTION EQUIPMENT INDUSTRY

There are 85 skid steer loader products and 12 manufacturers on the market today (Reed, 12May05). Management at Bobcat understands that skid steer loaders and mini excavators are trending towards being commodity products, meaning there are multiple manufacturers, competitive pricing, and low technology. Figure 7 shows the four quadrants of an ecosystem. For many years, Bobcat and the rest of the compact equipment operated in a niche market. As the markets grew, skid steer loaders and excavators became the tool of choice for construction companies, which pushed Bobcat into the “physical dominator” category. In the advent of multiple compact loader and excavator manufacturers in the recent decade, these products are trending towards commodities. Large manufacturers like John Deere, Caterpillar, and Gehl all provide loader and excavator products in the same market as Bobcat, resulting in a commodity product.

NICHE	KEYSTONE (VALUE DOMINATOR)
COMMODITY	PHYSICAL DOMINATOR

Figure 7. Four quadrants of an ecosystem.

Bobcat's relationship with IR shared services will push Bobcat products towards a higher degree of complexity of relationship within the industry. At the same time, technology thru research and development and joint agreement with other companies will push Bobcat products towards a higher degree of technology. So, instead of following the path towards commodity products, Bobcat Company's goal is to trend towards a "keystone advantage" or "value dominator" thru complex relationships with IR worldwide and investment in R&D, innovation, and technology. Executing this plan is a difficult one because Bobcat's competitors may be formulating the same plans.

PORTER'S FIVE FORCES ANALYSIS

Porter's Five Forces analysis can be used to identify major threats to a company or an industry. Appendix B shows the five forces analysis of the loader industry. Note the major competitive threats that exist, and the high degree of rivalry amongst the competition. There a 4 or 5 major competitors of loaders and excavators, each of which has a significant advantage over Bobcat in the distribution channel. Established dealerships with multiple product lines are abundant for Case, Cat, and John Deere, while Bobcat dealerships are typically limited to just compact equipment. Only 580 out of approximately 5,000 equipment dealerships in North America are Bobcat dealerships, so it is quite surprising that Bobcat owns 40-50% of the market share in skid steer loaders.

Additionally, supplier bargaining is a concern on the big ticket items like engines and hydraulics. Currently, engines are single sourced to Kubota, who coincidentally holds several mini-excavator lines and may produce a skid steer loader line in the future. Kubota engines have good marketability, but pose a significant threat if the supply chain is terminated. Lasting effects of this worst case scenario are in the billions of dollars, including engineering programs, assembly line retool, marketing, and other losses. The same is true for hydraulics, but fortunately there are multiple sources for hydraulic components, not single sourced, like engines.

FIVE ELEMENTS OF STRATEGY

The five elements of strategy, shown in Appendix C, display the overall strategic steps that are being taken by Bobcat Company management. Note how the theme *quality, leadership, innovation* ring throughout the five elements in the outline. Global presence is also an import strategic focus for Bobcat Company management, mostly due to the expansion in China. This particular sequence of moves is important, but not without risk considering today's low sales levels, logistical problems, and all other issues related to an undeveloped market. Further exploration into the European market could be conducted to determine the opportunities in this market versus the opportunities in the Asia Pacific market, but all indicators are that the market growth potential in China will far outpace that of Europe.

COMPETITIVE ANALYSIS

There are 24 skid steer loader manufacturers in the world. The skid steer loader market consists of 58,150 units in North America with 90% of the world skid steer sales occurring within North America. The top 5 competitors within the skid steer loader market are shown below, in Figure 8, according to market share. Despite the overwhelming challenges of competing with global giants like Cat, Case/New Holland, and Deere, Bobcat has maintained a distinct lead in the skid steer loader sales with 47% market share. A summary of the competitive analysis matrix is shown in Appendix D.

Manufacturer	Marketshare
Ingersol Rand / Bobcat	47%
Case / New Holland	23%
Catepillar	11%
Deere	6%
Gehl	6%

Figure 8. Skid steer loader market share thru 2003 (Yengst).

Since the merger of Case and New Holland in 1999, the synergies of the 2 companies are coming to fruition. Rationalization of manufacturing facilities, employees, and suppliers is ongoing for CNH and will play a key role in the long term low cost strategy for this company. CNH's strengths include low cost products, radial vertical path loader offerings, and a large dealer network. Weaknesses include a mediocre image for quality and reliability.

Caterpillar skid steers are relatively new to the industry, so their #3 ranking is significant. As mentioned previously, Cat first offered their skid steer loader product in 1999 (Cat.com). Cat has a distinct advantage in their large dealer network with top notch

maintenance and repair services, and 11 models of loaders to fill all needs. Additionally, their expertise in advanced tracked vehicle design is an advantage to their compact tracked loader line. Price is a major disadvantage.

Deere market share stands at 6%. Deere is similar to Cat with large dealer networks, top notch services, and expertise in track and hydraulic design. Disadvantages of Deere loaders include small product model offering with only 5 wheel loaders, and 2 tracked models. It is evident that Deere is skimming the top by not offering skid steer models in the lower lift capacity segments.

Gehl appears to be a formidable opponent with 7 loader models offered. Also of significance are their large product offerings in mini excavators, articulated loaders, and walk behind loaders. They appear to be investing in new product innovations and meeting, possibly even exceeding, equipment innovations of other competitors in the industry. An example would be their introduction of vertical lift loaders and tracked vehicles prior to other competitors in the industry. One distinct disadvantage of Gehl is their smaller dealer network.

Foreign competitors like Kubota and Komatsu are significant enough to mention due to their ability to provide low cost and high quality products. Kubota does not have a skid steer product at this time, but could be in development in the near future. Kubota does have several mini-excavator models and are very successful in the North America market. Pricing of some Kubota excavator models are so competitive that some OEMs can not even compete. Disadvantages of Kubota and Komatsu include stagnate overseas

growth of construction equipment market, mostly due to the lack luster Japanese economy.

MARKET OUTLOOK

The following variables are monitored when formulating a marketing forecast.

Some variables have more weight than others, and the weight may differ at different time periods.

- Housing starts
- Treasury bill interest rates
- Industrial production

Additional variables that should be monitored include changes in tax benefits, depreciation schedules, changes in political climate, like the war on terror and highway bill legislation. For example, the Defense Department recently took delivery of 283 new skid steer loaders in the first part of a 5 year contract, totaling \$50 million.

Accurate market forecasting is of utmost importance considering the large lead time required to make production and manufacturing decisions. The marketing department is skilled at imagining and anticipating possible futures and acting in a present way that will help make those futures reality. Sometimes these skills are not just cognitive and premeditated, but intuitive and tactile as well. Whether it is decisions regarding production capacity, product specification, or simply adjustments in short term build rate, the marketing forecasts steer the company into the future.

The Association for Equipment Manufacturers (AEM) surveyed construction equipment companies regarding factors that will affect their 2006/2007 sales. According to AEM, the top 3 factors that will affect future sales of construction equipment in 2006 are general economy, housing starts, and the highway bill, at 32%, 25%, and 23%, respectively. The top 3 factors that will affect future sales in 2007 are general economy, housing starts, and the highway bill, at 36%, 26%, and 22%, respectively (AEM.org). Interest rates weigh heavily on the minds of construction companies, as shown in Appendix E. Note, high energy prices were not mentioned in the list probably due to the link between energy prices and the general economy.

RENTAL EQUIPMENT

Forecasts for the rental equipment industry are shown in figure 9. Slow growth rates are forecasted from 2006-2008, followed by a 10% increase in 2009. The general health of the economy is the biggest factor affecting the rental industry. Largely, commercial construction is lagging as businesses are not yet expanding floor space or building new facilities, mostly due to uncertainty of the economy. Most of the rental business will come from spending on schools, highways, and medical facilities. Government spending on highways and infrastructure will be significant in forecasted years 2006-2009.

Year	% Change
2004	9.6
2005	8.0
2006	4.0
2007	-5.0
2008	1.0

2009	10.0
------	------

Figure 9. Rental Equipment Revenue Forecast.

Another development in the rental industry is the participation of the “Big Box” retailers, like Home Depot and Lowes. In 2004, Home Depot’s total rental revenue were estimated at \$425 million across 1,000 outlets (Yengst). At this point, these rental outlets are not in direct competition with dealers and independents. In fact, they have had a positive impact on the rental segment by expanding the rental market base. This additional customer base includes mostly homeowners and do-it-yourselfers who typically would not find themselves at Bobcat dealerships or independent rental businesses.

NORTH AMERICA

Housing starts in 2005 are forecasted to be up 3.3% from the prior year, while housing starts for 2006 are forecasted to be down 6.9% from the prior year. Commercial construction spending is forecasted to grow at 4.7% in 2005 and 5.9% in 2006 (Haughey).

ASIA-PACIFIC

“In 2004, China bought \$62 million worth of U.S. manufactured construction equipment, up 63% from 2003. China is buying hundreds of millions of dollars worth of machines as it builds roads, dams, power plants and high-rise buildings in places that for centuries were largely rural.” (Barrett)

CONCLUSION

Market share leadership is a key strategy for Bobcat due to the relationship between economies of scale and superior profitability. Sales growth in the US market is a key focus, in addition to expansion in the Latin America, European, and Asia Pacific region. Penetration into the US rental market will pay dividends since 70% of all sales in the US are in the rental market segment. The distribution channel within the US has major hurdles to overcome if Bobcat is to maintain market share leadership. The number of Bobcat dealerships in the US must be evaluated along with consideration for geographic location, future new product offerings and ability to provide exceptional parts and service support.

The environment in which Bobcat operates includes an intense rivalry amongst competitors, exemplified in the Five Force analysis shown in the appendix. Competitive analysis indicates that growth of overseas OEM's, like Kubota, Komatsu, and Volvo, are a serious threat due to their ability to penetrate the US market thru low cost tactics, high quality products, and expansion of their existing distribution channels. Competitive analysis also shows that Bobcat's offering of 17 loader models leads the industry, which is a key determinant in satisfying the different market segments.

Bobcat manufacturing operations will be able to meet the demands of the competitive market place through implementation of programs like Lean Manufacturing and Kaizen. By "doing more with less", Bobcat will be able to meet increasing demand for product using the same factory square footage, thus keeping overhead costs low. Operational excellence thru quality is important in products like skid steer loaders.

Implementation of new quality programs will be a key determinant in maintaining a solid reputation, while avoiding warranty costs and customer downtime.

The North America market forecasts are solid for 2006. Long range outlook indicates relatively flat sales in 2007 and then an upward trend in late 2007. Global expansion into Latin America and Asia Pacific regions is a key business strategy for Bobcat. Sales in China were meager in 2005, but investment in this region takes time and dedication. The long-term business prospects in the Asia Pacific region are great considering the enormous economic growth potential and the strong sales forecast for construction equipment in this region. Incremental sales in these regions will benefit Bobcat Company greatly thru increases in economies of scale and profitability.

Implementation and execution of the above mentioned strategies will result in maximized shareholder value thru customer-focused innovations, operational excellence, and global growth.

REFERENCES

- AEM.org. Association of Equipment Manufacturers. *2005-2006 Outlook for Construction Equipment Business*.
http://www.aem.org/Trends/Econ/PDFs/Outlook_2005.pdf. October 2005. 29 Dec 2005.
- Barrett, Rick. "Building A Profit". *Milwaukee Journal Sentinel*. July 25, 2005. 26 Jul 2005 <http://www.jsonline.com/bym/news/jul05/343714.asp>.
- Richard-Johnson, Mary E. Bobcat Marketing Group. West Fargo, North Dakota. June 25, 2005.
- Cat.com. 2005. Caterpillar Inc. July 30, 2005 <<http://www.cat.com/cda/layout?m=38033&x=7>>.
- Harrison, Jeffrey. *Strategic Management of Resources and Relationships*. Leyh Publishing, LLC, 2003.
- Haughey, James. "Construction Equipment Economic Status & Forecast." *Construction Equipment*. May 2005. 12 Aug 2005 <http://www.constructionequipment.com/economics/index.asp>.
- Qingfen, Ding. "Continental Shift". *China Daily: China Business Weekly*. March 13, 2006.
- Shea, Kenneth, Robert Gold, and Steve Biggar. "Spectrum Powers into S&P's Top Ten." *BusinessWeek Online* 09JUN05. 09Jul05
http://www.businessweek.com/investor/content/jun2005/pi2005069_0809_pi070.htm.
- Yengst, Charles. "Industry Analysis North America Rental Equipment Industry." Yengst Associates Machinery Market Research. May 2005.