Case5
Caterpillar Tractor

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Background(1)

- World Earth-Moving Equipment (EME)Industry
  - Worldwide demand for EME doubled from 1973 to 1980
  - The key users of EME are construction industry(60%), mining(30%) and forestry (10%). Since 1979 US construction industry faced downturn, meanwhile ME countries witnessed a massive rise in construction.
  - Internationally EME manufacturers sold through dealers, who provided direct and after-sales service.
  - EME industries focused more on products improvement, two-thirds of product cost was from heavy components – engines, axles, transmissions and hydraulics.

Background(2)

- Major Players in EME Industry
  - International Harvester (IH)
    - US company with three kinds of basic products: Heavy-duty trucks, agricultural equipment and construction equipment.
    - IH has strong distribution system especialyy in Asia and Eastern Bloc countries. Its product line ranked the second only after Cat.
  - J.I.Case
    - A major construction equipment manufacturer in NA.
    - Compared with Cat Case offered a wide array of machines for some product lines such as hydraulic excavator.
    - Case gained access to the technology of a leading hydraulic excavator producer after it acquired 40% interest in Poclain of France in 1977.

Background(3)

- Major Players in EME Industry
  - John Deere
    - JD is a leading farm equipment manufacturer with a full product line especially in large hp tractors
    - Sales of construction equipment accounts for 15% total revenue. Company's loyal dealer network was a major asset.
    - JD aimed to be No.2 in US construction equipment market and No.4 worldwide.
  - Komatsu
    - Komatsu dominated the Japanese construction equipment industry and was No.2 EME company worldwide.
    - With the support of Japanese government and technical cooperation with other partners such as Cummins Komatsu rapidly expand its business after World War II.
    - Outside Japan Komatsu lacked an effective dealer network especially in US market.

Case Description

The case is set in late 1981 when Caterpillar has just reported record sales and profits. The trigger issue focuses on a meeting called by CEO Lee Morgan to review the record results and evaluate Caterpillar's competitive strategy over the coming years.

- After an extensive review of the earth-moving equipment industry in 1981, including a profile of the major competitors, the case describes Caterpilla’s historical development, including the nature and source of its main functional policies such as marketing, manufacturing, product development, finance, personnel, and so on.
- Information is also provided on the company’s organizational structure and culture as well as its management styles and practices.
- Considerable detail is given on the evolution of Cat’s overseas expansion and worldwide strategy.

The case ends with some concerns being raised by about changes in the industry structure and economic environment. In particular the downturn in economic activity in the United States and elsewhere has reduced demand, resulting in an industry situation of surplus capacity. Meanwhile demand patterns have shifted from the developed to the developing world, but concern about the impact of global debt crisis on the creditworthiness of some of these less-developed countries makes such markets less attractive.

The case concludes with Lee Morgan ask his management to comment on what actions they think the company should take.

Learning Purpose and objectives

The first is to focus on the way in which forces of change can transform an industry structure and thus the competitive characteristics in a global environment.

The second is to identify the sources of Caterpillar's extraordinary competition domination of this industry.

The third is related to the issue of strategic fit. This case provides an ideal example of a company whose strategic posture has been designed to fit external industry demands and market needs. Furthermore, this external fit is reinforced by an internal fit in which the various functional elements support the overall strategic objectives.

Learning Plan

Industry analysis

(Initial proposals for strategic changes)

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Cat. Strategy identification and

Evaluation

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Strategy /industry fit analysis

Problem diagnosis

Review strategic change Proposals

Questions

1. What are the major changes in EME Industry?
2. What are the key elements in Caterpillar’s strategy? How has this strategy helped Cat to deal with the highly cyclical industry?
3. As a member of Lee Morgan’s management team, what recommendations would you Cat’s continued success?
4. Where is Cat most vulnerable?
5. Why has Cat been unwilling or unable to repair its obvious chinks in its armor?
6. What are the barriers to changing Cat’s strategy?

Discussion I

- 1. What are the major changes that are taking place in the Earth-Moving Machines industry?

Summary of EME industry Trends

- Demand slowing-excess capacity
- Market shift-OECD to Asia, Eastern Bloc
- Customer shift-LDC/NIC governments, non-US contractors
- Buying process shift-reputation/service to price/finance
- Competition shift-US companies to Komatsu

Industry Changes Analysis

Demand is slowing not only in U.S. but also in most other regions except for Southeast Asia. This is resulting in a situation in which the industry is operating at only 60% capacity.

Customer is shifting from U.S. contractors to construction companies in newly industrialized countries (NICs) as well as the direct bid business to government agencies in less developed countries (LDCs) and NICs. It is also interesting to note that the concentration of buyer power, with 20% construction companies accounting for 94% of non-US construction and 54% on the United States. Governments in NICs and LDCs also represent large buyers.

- Buying Process is shifting from one based on reputation and service to one based more on price and financing packages due to the shift in customers.
- Competition is shifting from the “big 5” in the U.S. to an emerging Japanese giant Komatsu.

Discussion II

- 2. What are the key elements in Caterpillar’s strategy? How has this strategy helped Cat to deal with the highly cyclical industry?

The Key Success Factor of EME Industry

- To understand why Cat has been so successful in establishing and defending its dominant industry position, one must understand the nature of construction industry and the role of EME suppliers in it.

- Machine reliability is vital issue for contractors. This is reinforced by the fact that most contractors tightly schedule the use of the equipment form one project to the next. For this reason, absolute dependability in equipment, availability of spare parts on short notice, and a worldwide service and support network are all key success factors in this business.

Cat.'s Business Model

- Cat has an excellent reputation as a supplier of quality equipment backed by a first-rate worldwide networks.
- The network gives Cat a commanding strategic position in being able to service equipment and supply parts anywhere in the world within 48 hours, or to service and repair equipment in locations around globe. This dealers are a major marketing asset and important entry barrier in many markets.
- For the quality and service reputation, Cat command a price premium of up to 20% over competitive products, while at the same time maintaining the low cost manufacturing position.

- Summary:

- (i) A full product line
- (ii) Worldwide distribution network
- (iii) Building capacity ahead of demand
- (iv) Scale volume converted lower cost position
- (v) Heavy investment in R&D to assure product leadership
- (vi)The dominant and highly loyal dealer network
- (vii) The enviable reputation that the company has built within the industry.

- How has this strategy helped Cat to deal with the highly cyclical industry?

There are several aspects of Cat strategy that represent built-in "shock absorbers" and Cat has been able to survive cyclical downturns more easily than its competitors.

With over 50%of its sales coming from exports to all markets of the world, the company is less affected by downturn in any one single market.

Operating normally at 75% capacity, but with a break-even at around 57% capacity, the company can absorb upswing of 33% without compromising customer service, and downswing of 25% without threatening profitability. Its policy of excess capacity serves not only as a deterrent to competitors, but, as a mechanism that allows the company to respond to industry's wide swing in demand.

- Representing 40% of the volume, but yielding twice the margin of complete machines, spare parts would seem to account for 57% of Cat’a total profits. This part of the business is much less susceptible to cyclical downturns and the large base of machines in the field provide a baseline of business and profit for Cat that bo competitor can match.
- The company’s investment in flexibility manufacturing systems further increases its ability to deal with changing demand patterns without suffering major profit downturn.

Discussion III

- 3. As a member of Lee Morgan’s management team, what recommendations would you make to ensure Cat’s continued success?

Company Challenges

- Manufacturing

Slowing worldwide demand threatens Caterpillar's policy of building capacity ahead of demand.

The increasing price consciousness in purchase decision creates a problem for company with its manufacturing capacity concentrated in a high labor cost economy.

The increasing importance of developing country governments as customers may require Cat. to increase their local value-added in these countries.

- Marketing

Dealer network represents a barrier to selling directly to the emerging customer group such as governments and contractors in LDCs and NICs.

A pricing policy that sets uniform dollar-based price worldwide is likely to lead to uncompetitive bids in developing countries with troubled economies and weak local currencies.

The distribution bias toward OECD markets will become increasingly inappropriate as demand shift towards NICs.

Products developed for these more sophisticated markets may be less appropriate in the newer developing country markets.

Proposals

Manufacturing

- Close down excess capacity to reduce overhead;
- Shift manufacturing offshore to take advantage of lower labor cost and foreign exchanges;
- Increase outsourcing of components and supplies to reduce direct costs and/or reduce overall investment;
- Adopt a hard stand towards the union in order to reduce labor cost differentials.

Marketing

- Increase pricing flexibility tp maintain volume;
- Bid directly on government contracts and/ or negotiate direct sales with major construction contractors.
- Shidt geographic attention towards Asia-Pacific basin.

R&D

- Become the R&D leader in the industry rather than follower.

Business strategy

- Diversify the product line out of the highly cyclical business

Summary

Cat's Problems	Proposals	
		EME
		Industry trends
Manufacturing	Manufacturing	
Marketing	Marketing	
	R&D	
	Business strategy	

Discussion IV

- 4. Where is Cat most vulnerable?

- Cost competitiveness. Cat factor costs, particularly for labor and steel, place it at a major disadvantage compared to Komatsu. Furthermore its concentration of 80% of manufacturing in the in the U.S. exposes it to a high degree of foreign exchange risk.

- Regional vulnerability. Cat is underrepresented in many LDC and Eastern Bloc markets, and particularly in Southeast Asia.
- Direct sales channels
- Locally differentiated products.
- Local procing flexibility.

Competitive Vulnerability	Caterpilla Verities
Cost competition	**Centralized scale, productivity**
-Factor cost	-Commitment to Peoria
-Foreign exchange	
Regional attack	**Maintain 100% ownership**
-Southeast Asia	-Avoid investment risk in LDCs
-LDCs	
Direct sales	**Dealer commitment**
-Governments/NIC contractors	-sell on reputation and service
-Price competition	-premium pricing
Price flexibility	**Uniform dollar pricing**
-Guerrilla pricing	-ties to costs

Discussion V

- 5. Why has Cat been unwilling or unable to repair its obvious chinks in its armor?

- The company’s commitments to its dealer network prevents it from selling direct to government agencies and other emerging customer groups, and its strong philosophy of providing quality products backed by parts and service makes it unwilling to decouple equipment, parts, and service and bid for them in separate contracts, as these new customers are demanding.
- The company’s strong desire to build highly centralized manufacturing operation derives in good part from its strong historical ties to Peoria.

- Cat's preference for 100% ownership and its concern about the risks of LDC investments constrain its willingness to invest in the new areas to which the industry demand is shifting .
- The company's belief in the need for centralized control leaves less sensitive to differences in market needs around the globe, and its commitment to product standardization to frive down costs make it less responsive to the growing demand for more differentiated equipment.

- The firmly established policy of dollar pricing worldwide which derives from the strong philosophy of central management and control as well as from the company’s centralized manufacturing structure, prevents the pricing flexibility that the new market situations are demanding.