

The importance of caterpillar inc in mining



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Caterpillar Inc is the “ largest maker of construction and mining equipment, diesel and natural gas engines and industrial gas turbines in the world” (Caterpillar Inc, 2010, p. 1). It was started in 1925, and is based in Peoria, Illinois. Its operations are divided into three segments: machinery, engines, and financial business segments (Businessweek, 2010).

With a global footprint, Caterpillar Inc.’s product line boasts of more than 300 products, manufactured in twenty three countries (Caterpillar Inc, 2010). In the sections that follow, an internal analysis of the firm is carried out and its distinctive capabilities and core competencies evaluated. Its corporate, functional, and competitive strategies are also analyzed.

Distinctive capabilities:

The resource-based view of the firm asserts that an organization’s resources and capabilities underpin the bedrock upon which the firm’s competitive advantage and strategy is based. While resources refer to the “ productive assets owned by the firm” (Saloner, Shepard, and Podolny, 2008, p. 12), capabilities refer to “ what the firm can do” (Saloner, Shepard, and Podolny, 2008, p. 12). Three types of resources have been identified: tangible resources, intangible resources, and human resources. As far as Caterpillar Inc is concerned, these are discussed below:

Tangible Resources:

Financial Resources: Caterpillar has a strong and healthy cash flow position. Net cash flows have increased from \$592, 000 in 2007 to \$1, 614, 000 in 2008 and \$2, 131, 000 in 2009 (Yahoo Finance, 2010). It enjoys strong

market capitalization, which stands at \$39.8 billion compared to only \$6.29 billion for its closest competitor and the industry average of \$1.71 billion. Its operating margins as well as price earnings ratio are well above the industry average (Yahoo Finance, 2010). Caterpillar's sales revenues, profits, and other financial indicators have shown a consistent improvement over the years. For instance, sales revenues have risen from \$30.3bn in 2004 to \$51.3bn by 2008, surpassing the firm's 2010 target of \$50bn with two years to go. Over the same period, profits have risen from \$2bn to \$3.6bn. Other financial ratios have also witnessed a strong climb-up (Annual Report). The firm also boasts of "an investment-grade credit rating" as well as easy access to the capital (Caterpillar Inc, 2009).

Marketing Resources: Caterpillar Inc has a marketing and distribution system that spans the entire globe. Additionally, it holds the market leadership position in the construction and mining industries as well as in the construction of natural gas, diesel, and industrial engines (Caterpillar Inc, 2009). With the broadest global footprint in the industry, it is very well diversified in terms of geographical spread and derives only 33% of its revenues in the US market. With over 300 products in its product line, its product base can be described as broad and well diversified which can help cushion it against downturns in specific product areas. Its customer service can also be described as superior, given that the firm offers among others quality assurance underpinned by a three year warranty, as well as fixed rate long-term financing tailored to specific customer needs (Caterpillar Inc, 2009).

Physical Resources: Caterpillar Inc boasts of hi-tech manufacturing facilities spread in at least twenty three countries, and geared towards production in thirteen different industries. Under the Caterpillar Production System (CPS), it has a world class manufacturing, supply chain, and distribution system that are closely aligned with the flexible manufacturing philosophy (Caterpillar Inc, 2009).

Intangible Resources:

Technology: the number of patents which Caterpillar Inc has received has continued to increase year after successive year. By 2010, it had 620 patents. This is in line with its expenditure on R&D which has grown from just \$928 million in 2004 to \$1. 73bn by 2008 (Caterpillar Inc, 2009).

Reputation: the market leader in the construction and mining industries and in the natural gas, industrial, and diesel engine industries, Caterpillar enjoys strong brand recognition as well as a strong reputation for machines distinguished by their specialist expertise, durability, design, as well as dealer and service excellence.

According to Saloner, Shepard, and Podolny (2008, p. 12), resources by themselves cannot give a firm a competitive advantage but must be blended together to give the firm capabilities. Based on the inventory of Caterpillar Inc.'s resources presented above, the firm's capabilities can be given as follows:

strong financial position which also gives the firm a high ability to finance innovation (R&D) and working capital requirements, raise credit financing to

expand its operations or investments, as well as the ability to finance its customers' and dealers' purchases over the long run.

Strong innovation capabilities as evidenced by the increasing number of patents it holds and the sustained investment in R&D activities.

Supply chain efficiencies (flexibility, cost effectiveness, etc) as evidenced by its Caterpillar Production System (CPS).

Strong manufacturing and distribution capabilities as evidenced by its global configuration of production, supply, and distribution facilities.

Strong marketing capabilities as defined by its market leadership position, broad product portfolio (over 300 products in thirteen different industries), its strong brand recognition and reputation, and superior customer service and excellence.

Selznick (1990) coined the term distinctive competences / capabilities to describe those things which the organization does extremely well relative to its marketplace rivals. In the case of Caterpillar Inc, its distinctive capabilities can be said to include: its innovation and financial capabilities as well as its well-diversified product base and geographical spread.

Core competencies:

Prahalad and Hamel (1990) define core competencies as those capabilities which are central to an organization's achievement of a sustainable competitive advantage. For the capability to be termed as a core competence, it has to meet four criteria as spelled out by the VRIO

framework. It must be valuable, rare, inimitable, and the organization must be sufficiently organized to exploit it. While Caterpillar Inc has a very broad product line and wide geographical spread, this can be easily replicated by its rivals through a deliberate strategy of market development and product diversification. Its supply chain capabilities can also be easily replicated through undertaking demand and supply chain integration activities such as maintaining low inventory levels and adopting flexible manufacturing systems. Its main core competencies therefore are its innovation capabilities, its superior financial position, and its superior customer service.

Strategy:

Strategy formulation has been described as taking place at three levels: the corporate level, business level, and the functional level. Robbins and Coulter (2005) identify three types of corporate strategies. These include growth, retrenchment, and stability strategies. Traditionally, Caterpillar has pursued the growth strategy which involves aggressively expanding into new markets and introducing new products so that by 2008 it had more than 300 products. Apart from its domestic US market, it has spread to most countries in Asia Pacific, Africa, Europe and Middle East, and Latin America.

However, prompted by the increasingly cyclical nature of the industries across which it operates as well as the recent global economic recession, the firm put brakes on its growth strategy and pursued a retrenchment strategy instead. This was characterized by cost reduction initiatives, closure of underperforming business units, and employee layoffs (Caterpillar Inc, 2009).

According to its annual report, the firm's "tough planning" initiative has involved:

Scaling down the number of its employees by more than 20,000, through voluntary as well as forced layoffs. Additionally, the firm has done away with many contingent workers (that is, temporary, agency, and contract employees).

Reducing working hours as well as closing some plants temporarily in many of its global facilities. In some areas, the firm has introduced shorter working weeks.

The firm has also undertaken various measures to optimize its supply chain management. These include reduction of inventories (which is expected to lead to lower inventory carrying costs), forging closer relationships with key suppliers, and the alignment of its logistical processes to conform to its flexible manufacturing system dubbed the Caterpillar Production System (CPS).

It has drastically reduced compensation levels for its employees and managers, in some instances by as much as half. This is expected to drive cost savings.

According to Robbins and Coulter (2005), firms which pursue the corporate strategy of growth have various strategic alternatives at their disposal. These include: concentration, vertical integration, horizontal integration, and diversification strategies. Of the four strategies, Caterpillar Inc has primarily made use of the diversification and horizontal integration strategies.

Diversification involves expanding the firm's scope of operations into other industries and product lines and this can be seen in the firm's expansion to over 300 products and in thirteen industries. The horizontal integration strategy involves merging operations with other players in the same industry with a view of enhancing the firm's competitive thrust and lowering competition in the industry. In the case of Caterpillar, this is evidenced by:

Combination of its operations with Mitsubishi Heavy Industries in 1965 in the Japanese market; joint venture with Navistar International Corporation which led to the creation of a new entity known as NC2 Global LLC in 2009; and a joint venture agreement with China Yuchai Machinery Co. Ltd in 2009 (Businessweek, 2010).

The Ansoff Matrix has further identified the strategies which can be pursued by a firm deploying the corporate strategy of growth as: product development, market development, diversification, and market penetration strategies (Mercer, 1996). The firm has predominantly made use of the product development strategy which involves the introduction of new products for existing markets. Cases in point include the introduction by the company of next generation mining trucks, the first ever electric drive tracks in the industry, as well as the innovation of the revolutionary cat 175 engine (Caterpillar Inc, 2009). The market development strategy is also evident in the firm's strategic posture, especially in its forays into more countries through geographic expansion. Some of the countries recently ventured into by Caterpillar include Saudi Arabia and India (Caterpillar Inc, 2009).

At the business level, three main strategies have been identified. These include the overall low cost leadership strategy, the differentiation strategy, and the niche / focus strategy. The niche strategy has further been distinguished as either a differentiated niche strategy or focused low cost strategy. Additionally, an organization may follow a stuck in the middle approach where it simultaneously pursues two or more of these strategies (Porter, 1998).

Of the three generic strategies, Caterpillar Inc can be described as following the generic strategy of differentiation. As its annual report (Caterpillar, 2009) attests, this strategy is based on two of its core competencies: its innovation capabilities and superior customer service.

Functional level strategies are strategies which are implemented at the functional level in order to support the business level and ultimately, the corporate level strategies (Robbins and Coulter, 2005). For example, as far as the human resource is concerned, the firm continues to put a lot of emphasis on the training and development of its personnel. In 2008 for example, it spent up to \$60 million in training and development initiatives. By ensuring that its employees are well trained and developed, the firm can see to it that creativity and innovation is fostered and that the staff are in a position to deliver exceptional levels of customer service. Its customer service strategy for example has involved offering three year warranties, and long term financing for customers and dealers (Caterpillar Inc, 2009).

Its manufacturing strategy has involved upgrading of its facilities. For example, in 2008, the firm spent up to \$2. 4 billion in initiatives aimed at

modernizing its manufacturing infrastructure. Other functional level strategies include ensuring costs are kept within manageable levels while maintaining high quality standards through initiatives such as the Six Sigma program, and ensuring that the organization is aligned with emerging market needs (Caterpillar Inc, 2009).