

Teaching Note For:

**A Strategic Focus on Workers, the Public and the Environment: DynMcDermott
Petroleum Operations Company**

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Case Overview

This case offers students the opportunity to analyze the Malcolm Baldrige National Quality Award- and Robert W. Campbell Award-winning Company that manages the US Strategic Petroleum Reserve, an important component of US energy, economic and strategic policies. Students also have the opportunity to explore strategy and strategic implementation in a government-contracting environment where there is only one “customer” (monopsony) and where competition among potential suppliers is often intense. The case emphasizes the strategic use of corporate social responsibility to create sustainable competitive advantage.

Case Synopsis

In the early 1990's, DynMcDermott Petroleum Operations Company (DM) was created to compete for the contract to operate the US Department of Energy's Strategic Petroleum Reserve (SPR). The SPR is comprised of four underground oil storage facilities constructed in naturally occurring salt domes¹ in Texas and Louisiana, with headquarters in the city of New Orleans, Louisiana. Congress authorized the SPR in the *Energy Policy and Conservation Act of 1975* (EPCA, P.L. 94-163). The SPR is controlled by the Department of Energy (DOE) which employs private-sector contractors to operate government-owned facilities. The SPR consists of over 700 million barrels of crude oil storage capacity, representing approximately 60 days of crude oil supply at current rates of demand in the US. DM has successfully managed the SPR since 1992, with a second contract awarded in 2003. The current (2003) contract runs through 2013.²

The US Congress and the DOE have identified three key mission-related outcomes for the SPR, which are:

1. Maintaining operational readiness, defined as storing and providing petroleum “to reduce the adverse economic impact of a major petroleum supply interruption to the United States and (carrying) out obligations under the International Energy Program.”³
2. Meeting the contractual requirements of the SPR Management and Operations contract.
3. Providing a safe, environmentally sound, and effective management and operating infrastructure.⁴

The case illustrates how DM’s strategy integrates focus on three strategic “pillars” to generate success in meeting the DOE’s requirements for the SPR while simultaneously fending off potential competitors for the SPR contract. The first pillar is the worker, the second is the public, and the third is the environment. Evidence is provided to show that each of these pillars contributes to operational, contractual, safety and environmental excellence, while enabling DM to manage the SPR efficiently. The case seeks to show that these three elements not only contribute to excellence separately, but that they also provide a combined synergy that amplifies DM’s business performance in ways that no single point of focus could.

The case also illustrates the company’s effective implementation of strategy through its Baldrige-based business management approach integrating safety, health and environmental (SH&E) management systems built around ISO 14001 and ANSI Z10. The case shows students that firms may create sustainable competitive advantage using a

socially and environmentally responsible system for strategic implementation that succeeds “...because of (not in spite of) a focus on the worker, the public, and the environment.”⁵

Analyses

The case provides students with opportunities for analysis from a variety of perspectives. Two perspectives for analysis are outlined below. These are: Miles and Snow’s strategic typology⁶ and Porter and Kramer’s strategic corporate social responsibility model.⁷

Miles and Snow’s Strategic Typology

Miles, et al.⁸ proposed that organizations must solve three interrelated problems as they develop a strategic approach. These problems are (1) the entrepreneurial problem, (2) the engineering problem, and (3) the administrative problem. The entrepreneurial problem involves the identification of a product-market and the development of an understanding of the “organizational domain,” by which they mean an understanding of customer needs and expectations combined with an understanding of the competitive environment within which the firm will operate.

Solving the engineering problem involves the development of a transformation process intended to efficiently produce the product and deliver it to the customer at an acceptable price. Miles, et al. describe this as the creation of a “system which operationalizes management’s solution to the entrepreneurial problem.”⁹

Finally, a solution to the administrative problem involves implementing “structures and processes” that “facilitate the organization’s future capacity to adapt by articulating and reinforcing the paths” that allow for continuous improvement.¹⁰ Miles, et al. view

this last effort as requiring management skill in maintaining good current performance without sacrificing the flexibility and adaptability needed to address changes in entrepreneurial and engineering problem sets.¹¹

Miles, et al. propose four “generic” approaches to solving the entrepreneurial, engineering and administrative problems discussed above. Firms are thought to adopt one of these four approaches or typologies and are termed defenders, analyzers, prospectors or reactors according to this perspective.¹² DM fits the defender type, as follows:

1. A defender’s chief strategic aim is to “seal off...the market” to “prevent competitors from entering.”¹³
2. Defenders typically accomplish this “sealing off” by investing heavily in their transformation processes to create either high cost efficiency or high quality or both.¹⁴
3. Defenders solve the administrative problem in a way that helps ensure strict organizational control aimed at maintaining cost efficiency, quality, or both. This control is maintained through a variety of structures, policies and procedures which are often viewed as “mechanistic” in practice, and may include management that is dominated by operations specialists, little attention to new areas of opportunity, intensive operations-oriented planning, extensive division of labor combined with ongoing labor-skill-development efforts, and so on.¹⁵

The case provides ample evidence that DM meets the criteria set forth for defenders. For example, the case concludes with a quote from CEO McGough where he explicitly identifies the discouragement of potential competitors as a strategic priority. The case

provides numerous examples of DM’s investment in its transformation processes intended to reduce cost and increase quality, as well as evidence that these efforts actually improve both cost and quality at the SPR. Finally, the case provides both direct and indirect evidence of strict internal control structured around the Baldrige criteria, Campbell criteria, and ISO-series of standards. DM’s heavy investment in employee development and training is also noted in the case, as is the fact that DM devotes no resources whatsoever toward the identification and development of “outside” opportunities (indeed, this is a requirement of the DOE’s contract with DM).

Miles and Snow’s table of defender characteristics is provided for reference, below:

Characteristics of the Defender

Entrepreneurial Problem	Engineering Problem	Administrative Problem
<i>Problem</i> How to "seal off" a portion of the market and create a stable set of products and customers	<i>Problem</i> How to produce and distribute products as efficiently as possible with high quality	<i>Problem</i> How to maintain strict control of the organization to ensure efficiency and/or quality
<i>Solution</i> 1. Narrow, stable domain 2. Aggressive maintenance of domain (pricing and customer service) 3. Ignore developments and opportunities outside domain 4. Cautious, incremental growth 5. Some product development but closely related to current products	<i>Solution</i> 1. Cost efficient technology 2. Single "core" technology 3. Tend toward vertical integration 4. Continuous improvement in tech to maintain efficiency/quality	<i>Solution</i> 1. Production experts most powerful members of organization, limited environmental scanning 2. Tenure of top managers lengthy, promotion from within 3. Planning is intensive, cost oriented, completed before action is taken 4. Functional structure with high division of labor and formalization 5. Centralized control and long-looped systems 6. Simple coordination mechanisms 7. Performance measured against prior years, reward system favors production and finance
<i>Costs/Benefits</i> It is difficult for competitors to dislodge organization from its niche in the market but a major shift in market could threaten survival	<i>Costs/Benefits</i> Technological efficiency is central to performance, but heavy investments require technological problems to remain familiar/predictable for long periods of time	<i>Costs/Benefits</i> Administrative system is ideally suited to maintain stability and efficiency, but is not well suited to locating and responding to new products or market opportunities

Porter and Kramer’s Strategic Corporate Social Responsibility Model

Michael Porter and Mark Kramer provide a framework for the strategic use of corporate social responsibility (CSR) in their 2006 Harvard Business Review article.¹⁶ In this article, they point out that the strategic application of CSR requires a recognition that business and society are mutually dependent, and that business actions that benefit only the business at the expense of society put business on “a dangerous path.”¹⁷ Porter and Kramer argue that companies must fully integrate social perspectives into the very fabric of their strategies in order to act in a truly responsible way.

On the other hand, society and business must also recognize that companies cannot – and should not be expected to – solve all of the social problems or “bear all of the costs” of these problems.¹⁸ The question for business leaders then becomes, “what are the actions that our business should take in order to act in a socially responsible manner?” Porter and Kramer argue that the test of any CSR approach should be whether the action or policy creates “shared value,”¹⁹ that is, whether the company’s actions or policies benefit both society and the firm.

To illustrate the strategic use of CSR, Porter and Kramer have developed a three dimensional model of social issues that consists of a generic dimension, a value chain dimension, and a competitive context dimension. Porter and Kramer’s illustration of this model is provided for reference, below:

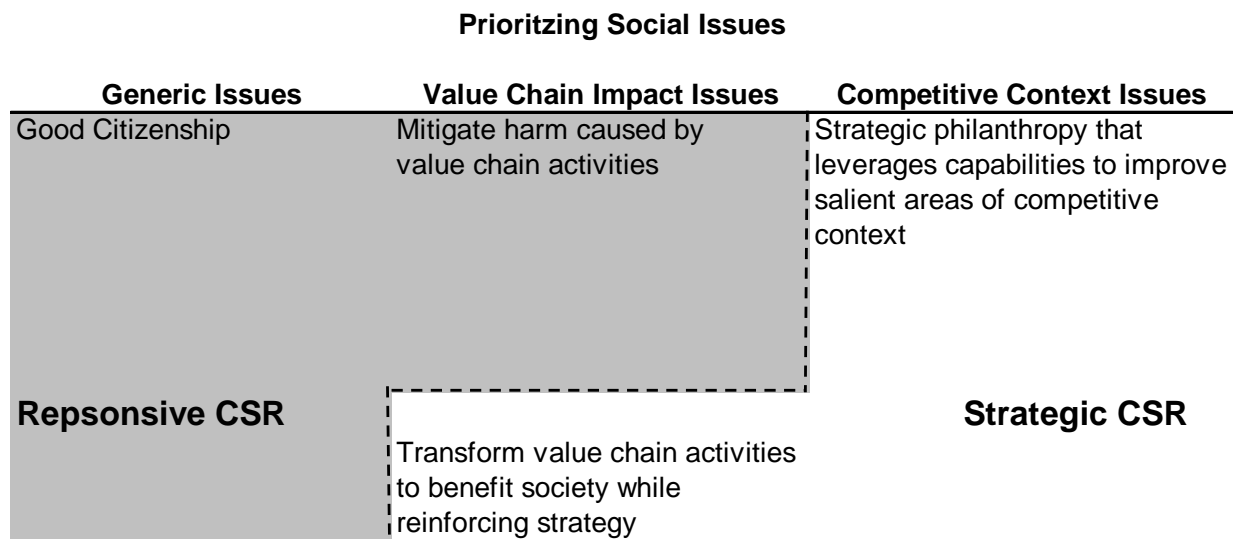
Prioritizing Social Issues

Generic Issues	Value Chain Impact Issues	Competitive Context Issues
Social issues that are not significantly affected by a company’s operations nor materially affect its long-term competitiveness	Social issues that are significantly affected by a company’s activities in the normal course of doing business	Social issues in the external environment that significantly affect the underlying drivers of a company’s competitiveness in the locations where it operates

Source: Porter, M. and Kramer, M. (2006). Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*. (Dec.) 78-92.

Porter and Kramer point out that, generally speaking, those issues that are most closely tied to the company’s business (i.e., those issues that fall into the value chain or competitive context dimensions) offer the greatest opportunity for creating this shared value between business and society. Moreover, CSR applied in these areas can help create sustainable competitive advantage for the business if properly implemented.

Porter and Kramer have developed an illustration of the strategic approach to CSR, which is supplied for reference, below:



Source: Porter, M. and Kramer, M. (2006). Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*. (Dec.) 78-92.

DM’s strategy and its implementation illustrate the use of CSR to create and maintain competitive advantage. The case uses DM’s stated focus on workers, the public, and the environment as an organizing principle. Examples from each of these three areas that illustrate the strategic use of CSR are provided below:

Prioritizing Social Issues at DynMcDermott

Generic Issues	Value Chain Impact Issues	Competitive Context Issues
		<p>The Public Community outreach program EMS exercises/training Coastal cleanup efforts Youth Challenge program Support for charities Small/Disadvantaged Business</p> <p>The Environment Environmental Adv. Council Published environmental report</p>
Responsive CSR	<p>The Worker Recruitment process Affirmative action review Diversity council Initial training programs Professional development Individual development planning Behavioral safety program Ethics training Team-based structure</p> <p>The Public Emergency planning groups EMS exercises/training Coastal cleanup efforts</p> <p>The Environment Measurable requirements Emergency planning groups Risk reduction efforts</p>	Strategic CSR

Source: *adapted from* Porter, M. and Kramer, M. (2006). Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*. (Dec.) 78-92.

Relating the above to the development and maintenance of sustainable competitive advantage at DM is relatively straightforward if consideration is given to the DOE’s three key mission-related outcomes for the SPR. First, DOE needs operational readiness, which in the case of DM is most closely aligned with the primary value chain activities associated with the storage and movement of crude oil into and out of the SPR, as well as the supporting value chain activities involved in human resource management policies and practices.

Creating and maintaining operational readiness at the SPR is significantly a function of recruiting and retaining a well-qualified workforce, and also of developing that workforce to improve operational effectiveness and efficiency. Moreover, the circumstances under which the government might require a drawdown of stored petroleum reserves include national or regional emergencies which might negatively impact DM employees and make such operations difficult. Such a circumstance was vividly illustrated in the case descriptions of hurricanes Katrina and Rita, which directly affected the majority of DM employees. Despite this impact, and as noted in the case, all but one of DM's employees reported for duty within twenty-four hours of these storms and DM was able to perform normal operations within 72 hours of hurricane Rita's landfall. This illustrates the strategic importance of DM's focus on workers and how this socially-responsible set of actions provided – and continues to provide – a competitive advantage to DM.

The second mission-related success criterion is that the operating contractor must meet all other contractual requirements of the SPR. The operating contract includes environmental, safety and health-related measures amounting to 35 percent of all performance measures. As illustrated above, DM's proactive use of measurable environmental criteria, a behavioral safety program, and community involvement in environmental planning relate directly to the actual and possible impacts of its value chain activities. Since these activities also impact contractual requirements, DM's implementation of the programs and policies illustrated in the case also provides competitive advantage and real “bottom line” results to the company while simultaneously benefiting the communities where DM operates.

The final mission-related outcome sought by DOE is the provision of a safe, environmentally-sound operating infrastructure at the SPR. As has already been discussed and as illustrated above, many of DM's strategic policies and programs provide for this outcome. Safety and environmental concerns (both in operations and more generally) are fully integrated into DM's strategic planning and in its implementation of strategy. This provides significant strategic benefits to DM immediately (by maximizing incentive and award fees), in the mid-term (by encouraging DOE to exercise contract renewal options), and long-term (by discouraging potential competitors from bidding on future SPR contracts).

Suggested Questions for Analysis

1. Using Miles and Snow's strategic typology, which of the three strategic types best describes DynMcDermott? Support your answer with evidence from the case.
2. What strategic actions has DynMcDermott taken to "seal off" the Strategic Petroleum Reserve from potential competitors?
3. How does DM's strategic focus on workers act to "seal off" the Strategic Petroleum Reserve from potential competitors?
4. How does DM's strategic focus on the public act to "seal off" the Strategic Petroleum Reserve from potential competitors?
5. How does DM's strategic focus on the environment act to "seal off" the Strategic Petroleum Reserve from potential competitors?
6. Thinking about Porter and Kramer's Strategic Corporate Social Responsibility model, what actions has DM taken in the "value chain issues" dimension that benefit both the company and society? How do these actions contribute to sustainable competitive advantage for DM?
7. Thinking about Porter and Kramer's Strategic Corporate Social Responsibility model, what actions has DM taken in the "competitive context issues" dimension that benefit both the company and society? How do these actions contribute to sustainable competitive advantage for DM?

¹A salt dome is a geologic structure formed by the upwelling of rock salt and surrounding sediments. Most salt domes are quite large, and can range from just under 1 mi. in height to nearly 10 mi. high.

² DynMcDermott Petroleum Operations Company, (2006). *Application of Management Systems to SH&E*. Chicago, IL: Robert W. Campbell Award of the National Safety Council.

³ Energy Policy and Conservation Act of 1975 (EPCA, P.L. 94-163)

⁴ DynMcDermott Petroleum Operations Company, (2005). *Malcolm Baldrige National Quality Award Application*. New Orleans, LA: DynMcDermott Petroleum Operations Company.

⁵ DynMcDermott Petroleum Operations Company, (2006). *Application of Management Systems to SH&E*. Chicago, IL: Robert W. Campbell Award of the National Safety Council.

⁶ Miles, R., Snow, C., Meyer, A., & Coleman, H. (1978). Organizational strategy, structure, and process. *Academy of Management Review*. (July). 546-562.

⁷ Porter, M. and Kramer, M. (2006). Strategy and Society: The link between competitive advantage and corporate social responsibility. (December). 78-92.

⁸ Miles, R., Snow, C., Meyer, A., & Coleman, H. (1978). Organizational strategy, structure, and process. *Academy of Management Review*. (July). 548-549.

⁹ *Ibid.*, p. 549.

¹⁰ *Ibid.* p. 550

¹¹ *Ibid.* p. 550.

¹² *Ibid.* p. 550.

¹³ *Ibid.* p. 550.

¹⁴ *Ibid.* p. 550.

¹⁵ *Ibid.* p. 550.

¹⁶ Porter, M. and Kramer, M. (2006). Strategy and Society: The link between competitive advantage and corporate social responsibility. (December). 78-92.

¹⁷ *Ibid.* p. 84.

¹⁸ *Ibid.* p. 84.

¹⁹ *Ibid.* p. 84.