

Kennel-Up Company: An analysis of target costing and strategic cost management techniques

L. Melissa Walters
The University of Tampa

Teresa M. Pergola
The University of Tampa

Erika Matulich
The University of Tampa

ABSTRACT

This instructional case is designed to develop students' understanding of target costing, cost reduction methods, and associated strategic considerations. The case narrative describes a new product offering along with key market, product design, and cost data used to establish the market price, profit objectives, and target cost for the new product. The case narrative also relates a problematic target costing scenario in which a management team discovers they cannot meet the board-approved target cost for the new product due to errors in initial cost calculations and must identify a solution to the problem given strategic, logistic, and target objective pressures. Case requirements ask students to analyze the company's competitive strategy/advantage, analyze the target costing model, explain determination/implications of cost estimates, consider proposed solutions, explain cost reduction methods, and evaluate ethical considerations in light of the concerns described in the narrative. Successful completion of the case requires understanding, synthesis, and application of strategic positioning, value chain analysis, customer value analysis, life-cycle cost management, and business ethics concepts.

Keywords: target cost, strategy, value chain, customer value, life-cycle cost, ethics

INTRODUCTION

In today's highly competitive business environment, companies must focus on creating sustainable competitive advantage to survive and prosper. Competitive advantage results from the firm's strategic approach to product differentiation and cost management relative to its competitors (Porter 1985). Successful differentiation creates value for customers and allows a firm to price their product above the competition. Successful cost management allows the firm to meet profit targets and achieve long-term sustainability and/or to compete by offering lower prices. Target costing is a useful strategic concept/method for supporting value creation and facilitating cost reduction goals as are related concepts/methods of strategic positioning, value chain analysis, customer value analysis, and life cycle cost management (Blocher et al. 2013, Hansen & Mowen 2013, Institute of Management Accountants 1994, Institute of Management Accountants 1996, Porter 1985, Rayport & Sviokla 2000, Shank and Govindarajan 1992).

The concept of target costing is often introduced in foundational marketing and management accounting courses. It is generally presented as a simplified concept in which a company computes the target cost by subtracting a desired profit margin from a competitive market price. The competitive market price is given, profit is defined as percentage return on investment or percentage of selling price, and target cost is the mathematical difference. The concept as presented in foundational courses is simple to conceptualize and easy to understand and apply. However, this simple conceptualization of the target costing model/process ignores pragmatic complexities of determining target cost components, related strategic/competitive concerns/methods, and accompanying real-world pressures to achieve competitive, logistic, and target cost objectives. Such complexities, strategic concerns, and pressures are of great significance to real-world applications of target costing (Gopalakrishnan, Samuels, & Swenson 2007, Swenson, Ansari, Bell, & Kim 2003). Students may be exposed to such topics in separate accounting, finance, management, or marketing courses, but may not fully understand the critical interrelationships between concepts nor have the occasion to apply such concepts to a real-world context in an integrated manner. It is critical that students understand target costing complexities, related strategic concepts/concerns, and practical pressures and the manner in which they are likely to interact when applying target costing in practice.

The purpose of this case is to facilitate students' understanding of target costing and how concerns for competitive advantage, value chain management, customer value creation, cost management, and business ethics impact the achievement of target cost objectives. The case narrative describes a new product offering along with key market, product design, and cost data used to establish the market price, profit objectives, and target cost for the new product. The case narrative also describes a target costing scenario in which a management team discovers they cannot meet the board approved target cost for the new product due to errors in initial cost determinations. The management team is under great pressure to quickly identify a solution to the problem given strategic, logistic, and cost considerations. Case requirements ask students to analyze the company's strategic positioning and competitive advantage, analyze the target costing model as applied by the company, explain the determination and implications of cost estimates, consider potential solutions to the target costing dilemma, explain appropriate methods for cost reduction for the company, and evaluate ethical concerns raised by the target costing dilemma.

The remainder of this paper is structured as follows. The next section presents suggested courses and learning objectives for the case, the following section presents the Kennel-Up

Company case narrative followed by case requirements, and the final section provides brief discussion on classroom use.

TARGETED COURSES AND CASE LEARNING OBJECTIVES

The Kennel-Up Company case was designed for a graduate-level advanced management accounting course but is also appropriate for a marketing strategy or business capstone course. To complete case requirements successfully, students will need foundational understanding of cost/management accounting, marketing strategy, and management strategy concepts such as may be acquired from undergraduate business studies or previous graduate-level classes. The case should be implemented after coverage of strategic cost management, cost assignment, activity-based management, value-chain analysis, and life cycle costing. These topics are adequately covered in most cost accounting/management textbooks, but may be supplemented by additional readings. A list of suggested supplemental readings is offered in Appendix A.

The specific learning objectives for the case are to develop students' ability to:

1. Analyze the competitive strategy and sources of competitive advantage for a company
2. Analyze the components, steps, and application of the target costing model
3. Explain the determination and implications of strategically useful/reliable cost estimates
4. Identify and explain techniques to achieve cost reduction to meet target cost objectives
5. Evaluate ethical issues that arise from pressures to achieve target cost objectives

KENNEL-UP COMPANY CASE NARRATIVE

Kennel-Up Company manufactures a line of pet cages, kennels, and carriers for variety of pet-care purposes. The market for pet cages, kennels, and carriers is quite competitive, so Kennel-Up continuously explores evolving customer requirements and endeavors to develop new product offerings to maintain and/or increase market share in different categories. Kennel-Up's prices are somewhat higher than those of its competitors, so the company's market share and profitability are based on the company's ability to develop new products, maintain a quality image (resulting in greater perceived value on the part of its customers and consequently, the ability to sustain higher prices), and the company's ability to effectively manage product costs.

Over the last ten years, Kennel-Up's market research has revealed changing customer demands due to the rising popularity of non-mainstream household pets (i.e., pets other than cats and dogs) often referred to as "exotic pets" or "interactive pets" (e.g. birds, chinchillas, ferrets, rabbits, etc). Kennel-Up's market research suggests that ferrets have rapidly evolved into one of the most popular pets in the U.S. and that these energetic, fun-loving, trainable members of the *Mustelidae* family rank just behind cats and dogs as the third most popular pet in the U.S. (AVMA 2012). In response to this revelation, Kennel-Up began developing a new ferret product line, for which the flagship product is a new cage designed specifically for pet ferrets. Kennel-Up's initial market research indicated that ferrets have unique housing needs and suggested that ferret owners often keep multiple ferrets. As a consequence, Kennel-Up concluded that the new ferret cage would have to be carefully designed and be large enough to house two or more ferrets.

Further research consisted of customer focus groups and surveys and indicated that the key features and functionality valued by customers (in order of perceived importance) include quality

(durable materials and sturdy construction), safety (well-tested construction and no small parts, sharp edges, pinching points, or dangerous openings), flexible design (movable shelves, ramps between shelves, fasteners with which to hang tubes and hammocks, ability to secure a potty box), size (large size sufficient to house an average of two or more ferrets), convenience (setup, mobility, storage), accessibility (large front and top doors, ease of opening, ability to close securely), layout (space saving vertical layout with multiple levels as opposed to space-hogging horizontal layout), economical pricing (although quality and safe justify a higher price), fanciful styling (colors, tooling), and personalization (name plate). Focus groups and customers surveyed indicated they would be willing to pay up to 20-22% more for the new ferret cage if the cage addressed quality, safety, flexibility, size, convenience, and accessibility considerations. The initial market for Kennel-Up's new ferret cage was estimated to be 40,000 cages over a five-year period with a proposed selling price of \$240.00.¹ The board of directors keenly approved the new product concept based on a market feasibility assessment conducted by the marketing department with the expectation that the new ferret cage would generate a 25% profit margin. The target profit margin was a result of the design team's estimate of total product cost.

Kennel-Up created a cross-functional product development team consisting of representatives from several areas such as product development, engineering and production logistics, materials purchasing, marketing, and distribution to develop the new ferret cage. The development team utilized the customer focus group and survey research to develop an initial concept design. The development team then compared competing products with their initial concept design and identified several opportunities for improving customer value particularly with respect to quality, safety, flexibility, size, and convenience, accessibility, and layout dimensions. The resulting revised concept design consisted of a roomy, easily collapsible, two-level ferret cage with durable materials and construction, enhanced safety features, flexible design (movable shelves, ramps, and fasteners which also allow the cage to be collapsed for shipping or storage), front and top accessibility, a rolling base, a stylish design with a choice of colors and decorative tooling on the base, and an engraved brass personalization plate on the front (so customers engrave ferret names on the cage). The exterior, shelves, and base are machine manufactured but the final product is assembled by hand so quality and safety inspections can be conducted during assembly. The product is then collapsed so it may be boxed and shipped conveniently and cost efficiently. The cost estimate for the new ferret cage was \$180.00 per unit which includes standard estimates for production costs (e.g., materials, labor, and overhead), marketing costs, and support costs.



The design proposal was then forwarded to Kennel-Up's board of directors for final approval. The board was very pleased in particular with the quality, safety, flexibility, size, and convenience features of the product and emphasized the significance of these features to the company's product differentiation strategy. The board approved the final design of the product based on the development team's cost figures, design, and profitability expectations. Subsequently, upon reviewing the projected figures, the head of the development team,

¹ The proposed selling price was developed based on comparative analysis of the pricing of competing products, the perceived value of proposed product enhancements, and the price differential customers indicated that they would be willing to accept. Research indicated that the average selling price for comparable competing products was \$200.00 so Kennel-Up calculated the proposed selling price to be \$240.00 (120% of the average price).

Dave Fairit, was extremely alarmed to find that expected profit margin would not be met, due in part to a \$2.00 per unit cost assignment error when computing the estimated unit cost and in part because the development team's cost estimates had neglected to include \$320,000 worth of preproduction costs related to product research and development. Dave immediately contacted the three other members of the development team, Binky Furet from the marketing department, Willie Frettchen from the accounting department, and Calvin Mustelid, from engineering and production, to verify his findings. The following is a partial transcript of the emergency meeting of the development team:

Dave: What are we going to do? The board of directors approved the new product design based on our figures.

Binky: I suggest that we reduce the selling price in an attempt to increase the number of cages sold. If we lower the price by \$10.00 per unit we can probably expand our market share and sell another 10,000 cages over the first five years. This sales increase should make up the difference in total profit.

Dave: But the board approved the \$240.00 selling price and I don't think they will approve a lower selling price.

Willie: They are only concerned with the bottom line. Besides, the 25% profit margin is what we proposed to the board based on our cost estimates. We can just play around with the numbers a bit so the revised proposal focuses on an increase in *total* profit. Do you really want to go back to the board and tell them we screwed up? I think we should handle the problem without going back to the board.

Dave: No, I don't think I am comfortable misleading the board. In any case, I don't want to sacrifice profit margin per unit. I am also concerned that customers might perceive a lower price as indicating lower quality and as such, negatively impact Kennel-Up's ability to differentiate its product based on perceived value compared to competing products in the market. Calvin, any suggestions?

Calvin: I was afraid the product cost was going to be a problem because the board insisted on all the quality, safety, flexibility, and convenience features. These are nice features, but they run up the unit cost of the cage significantly. Cost reductions could be made in several areas by redesigning the product to reduce the durability of the cage materials (cost reduction of \$6 per cage), reduce safety features (resulting in cost reduction of \$4 per cage), eliminate the movable shelves and collapsibility of the cage (cost reduction \$4 per cage), reduce the size of the cage (resulting in cost reduction of \$5 per cage), eliminate the top opening (cost reduction of \$2 per cage), eliminating the wheels in the base (cost reduction of \$4 per cage), eliminate the decorative tooling on the base (cost reduction of \$2 per cage), eliminate the choice of color (cost reduction from \$3 to \$5 per cage as a consequence of eliminating set up changes), or even eliminate the engraved brass personalization plate (cost reduction of \$4 per cage). Just eliminating the durability and safety features of the cage alone will allow us to make the expected profit margin per cage. Unfortunately, this would result in some additional preproduction costs to redesign the cage but if we remove the top opening as well, we can make up the additional preproduction costs with no problem.

Willie: I would like to review both the original cost estimates as well as Calvin's cost savings estimates closely to verify cost accuracy before we commit to redesigning the cage to achieve such cost reductions.

Dave: I just don't know if the board will accept eliminating key features to reduce the cost of the cage even if the cost estimates are reliable.

Calvin: Does the board need to be informed of these cuts because we are simply attempting to meet the profit margin *they* stipulated? If we go back to the board now, it will delay production and as a consequence, most likely delay the planned holiday season release date of the product. Delaying the product release could negatively impact the first year sales and profitability of the product.

Binky: Wait a minute, wait a minute ... are you are suggesting we eliminate key features, features that both our market research and the board identified as critical? *Without* notifying the board?

Calvin: If you want to make the stipulated profit margin, we have to make cuts. The suggested changes are the most obvious areas to cut costs. The board doesn't need to know the details. Customers will still buy the product and the board will still get its 25% profit margin. What's the problem?

Willie: I agree. We need to make some cuts to make the stipulated profit margin. We have a lot riding on this new product as it represents the initial product offering in our new ferret product line.

Binky: Well I disagree. Calvin's suggested cuts could result in a shoddy, unsafe, and undesirable product and increase postproduction costs to customers for using, maintaining, and disposing of the product. In addition, all the pet food contamination issues a few years back showed us that people have no tolerance for products that jeopardize the safety of their beloved pets. An unsafe product could result in injury to caged ferrets and ultimately, damage the image of the company in the long run.

Dave: I am going to schedule a meeting of the development team to discuss this problem further. What a nightmare!

CASE REQUIREMENTS

1. Explain Kennel-Up Company's strategic positioning in light of the competitive market in which it operates. How has Kennel-Up Company created a distinct competitive advantage and reacted to market pressures to sustain that competitive advantage?
2. Explain the steps in the target costing model in the context of Kennel-Up Company's new product offering. Explain the key components of the target cost computed by Kennel-Up Company's management team and evaluate how they were determined. Comment on this approach identifying both positive and negative implications.
3. Identify the types of costs that should be included in the cost estimate for the new product. How do value chain analysis and life cycle cost management concepts relate to the determination of strategically useful cost estimates for the new product? Explain.
4. Discuss the impacts of cost assignment, cost accuracy, and cost completeness on the strategic reliability of cost estimates. Explain the implications of these issues for the target costing problem identified in the case.
5. Explain and comment on the management team's proposed solutions to the target cost dilemma they face. Consider potential impacts of changes in pricing, distribution timing, and/or product features on perceived customer value and the ultimate demand for the

product. Also, consider the implications of the proposed solutions for the sustainability of the company's competitive strategy (short-term and long-term).

6. Identify methods/techniques the team can use to achieve cost reduction. Explain which cost reduction methods/techniques would be most appropriate and how they may be applied to reduce the cost of the new product to an acceptable level.
7. Evaluate the ethical issue(s) surrounding the target costing dilemma described in the case. Why did such issues surface and what can the firm do to avoid similar ethical concerns in future situations?

CLASSROOM USE

The Kennel-Up Company case may be assigned as a class discussion exercise, written case assignment, and/or presentation assignment on an individual or team basis. The authors assigned preparatory readings (textbook and supplementary readings) addressing key concepts broached in the case and then discussed these concepts in class before the case was assigned. The authors have assigned the case as both a team-lead discussion assignment and written case assignment combined with a student presentation. As a team-lead discussion assignment, the case was assigned to a specific team of students who were instructed to synthesize a sound understanding of relevant course concepts, conduct supporting research as needed, analyze the case using course concepts and supporting research, and then develop well-reasoned responses to case requirements. Student teams were then required to lead an interactive class discussion (live or via an online discussion forum) during which they identified and explained key case concepts, discussed case requirements, and offered insights into the case. Non-presenting students were instructed to prepare the assigned case as a basis for participating in the class discussion during which all students were required to make a constructive contribution to receive participation credit for the case. Alternatively, as a written case assignment, the case was assigned to all student teams as a writing assignment with one team responsible for presenting the case during class. Student teams were required to analyze the case and turn in formal written responses to requirements as preparation for the student team presentation (during which non-presenting students were required to participate in the ensuing discussion). Requiring all teams to prepare a formal written response to the case may be the preferable approach as it ensures that all students come to class well-prepared to discuss the case and as such, facilitates active participation in discussion of case issues.

Time needed to discuss/present the case in class will depend largely on the sophistication and level of detail included in the presenting team's analysis and the level of class participation by non-presenting students. The authors have found that approximately 40 to 50 minutes of class time is adequate to address central case concerns and requirements; however, exploration of alternative solutions to the case dilemma and more in-depth discussions of specific issues (such as ethical considerations) often characteristic of graduate-level courses classes may require additional class time. The time necessary to prepare the case from a student perspective is a function of conceptual understanding of the material, team dynamics (if applicable), and individual study/preparation habits. Student teams reported that the case took approximately 3 - 5 hours to prepare.

When the case was assigned as a team-based discussion assignment, presenting team

discussions were evaluated using a simple rubric (i.e., did not meet expectations, met expectations, exceeded expectations) applied to discussion content (extent to which learning objectives were met), delivery (preparedness and quality of delivery), and discussion value (quality of class discussion elicited). Non-presenting students' participation was evaluated based on their level of preparation and the quality of their comments. When the case was assigned as a written case assignment with one student team presenting, all teams' written submissions were evaluated using a simple rubric tied to learning objectives and in addition, the presenting team was evaluated based on their presentation skills.

REFERENCES

- American Veterinary Medical Association (2012). *U.S. Pet Ownership & Demographics Sourcebook*. American Veterinary Medical Association, Inc.
- Blocher, E. J., Stout, D. E., & Cokins, G. (2013). *Cost Management: A Strategic Emphasis, Sixth Edition*. New York, NY: McGraw-Hill/Irwin.
- Gopalakrishnan, M., Samuels, J., & Swenson, D. (2007). Target Costing at a Consumer Products Company. *Strategic Finance*, December, 37-41.
- Hansen, D. R. & Mowen, MM. (2013). *Cornerstones of Cost Management, Second Edition*. Mason, Ohio: South-Western Cengage Learning.
- Institute of Management Accountants (1994). *Implementing Target Costing*. Montvale, NJ: Institute of Management Accountants. Retrieved from www.imanet.org.
- Institute of Management Accountants (IMA) (1996). *Value Chain Analysis for Assessing Competitive Advantage*. Montvale, NJ: Institute of Management Accountants. Retrieved from www.imanet.org
- Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York, NY: Free Press.
- Rayport, J. F., & Sviokla, J. J. (1995). Exploiting the Virtual Value Chain. *Harvard Business Review*, November/December, 75-85.
- Shank, J. K. and Govindarajan, V. (1992). Strategic Cost Management and the Value Chain. *Journal of Cost Management*, Winter, 5-21.
- Swenson, D., Ansari, S., Bell, J. & Kim, I. (2003). Best Practices in Target Costing. *Management Accounting Quarterly*, 4 (2), 12-17.

APPENDIX A: SUGGESTED SUPPLEMENTAL READINGS

- Albright, T. (1998). The Use of Target Costing in Developing the Mercedes Benz M-Class. *International Journal of Strategic Cost Management*, Autumn, 13-23.
- Cooper, R. & Chew, W. B. (1996). Control Tomorrow's Costs through Today's Designs. *Harvard Business Review*, January/February, 88-97.
- Cooper, R. & Kaplan, R. S. (1988). How Cost Accounting Distorts Product Costs. *Management Accounting*, April, 20-27.
- Gopalakrishnan, M., Samuels, J., & Swenson, D. (2007). Target Costing at a Consumer Products Company. *Strategic Finance*, December, 37-41.
- Institute of Management Accountants (1994). *Implementing Target Costing*. Montvale, NJ: Institute of Management Accountants. Retrieved from www.imanet.org.

- Institute of Management Accountants (IMA) (1996). *Value Chain Analysis for Assessing Competitive Advantage*. Montvale, NJ: Institute of Management Accountants. Retrieved from www.imanet.org
- Shank, J. K. and Govindarajan, V. (1992). Strategic Cost Management and the Value Chain. *Journal of Cost Management*, Winter, 5-21.
- Swenson, D., Ansari, S., Bell, J. & Kim, I. (2003). Best Practices in Target Costing. *Management Accounting Quarterly*, 4 (2), 12-17.

