# **ESERCIZI**

# 1 RETURN ON INVESTMENT, MARGIN, TURNOVER

Ready Electronics is facing stiff competition from imported goods. Its operating income margin has been declining steadily for the past several years; the company has been forced to lower prices so that it can maintain its market share. The operating results for the past three years are as follows:

	Year 1	Year 2	Year 3
Sales	\$10,000,000	\$ 9,500,000	\$ 9,000,000
Operating income	1,200,000	1,045,000	945,000
Average operating			
assets	15,000,000	15,000,000	15,000,000

For the coming year, Ready's president plans to install a JIT purchasing and manufacturing system. She estimates that inventories will be reduced by 70 percent during the first year of operations, producing a 20 percent reduction in the average operating assets of the company, which would remain unchanged without the JIT system. She also estimates that sales and operating income will be restored to year 1 levels because of simultaneous reductions in operating expenses and selling prices. Lower selling prices will allow Ready to expand its market share.

# Required:

- 1. Compute the ROI, margin, and turnover for years 1,2, and 3.
- 2. Suppose that in year 4 the sales and operating income were achieved as expected, but inventories remained at the same level as in year 3. Compute the expected ROI, margin, and turnover. Explain why the ROI increased over the year 3 level.
- 3. Suppose that the sales and net operating income for year 4 remained the same as in year 3 but inventory reductions were achieved as projected. Compute the ROI, margin, and turnover. Explain why the ROI exceeded the year 3 level.
- 4. Assume that all expectations for year 4 were realized. Compute the expected ROI, margin, and turnover. Explain why the ROI increased over the year 3 level

# **2 RETURN ON INVESTMENT ETHICAL CONSIDERATIONS**

Jason Kemp was torn between conflicting emotions. On the one hand, things were going so well. He had just completed six months as the assistant financial manager in the Electronics Division of Med-Products Inc. The pay was good, he enjoyed his coworkers, and he felt that he was part of a team that was making a difference in American health care. On the other hand, his latest assignment was causing some sleepless nights. Mel Cravens, his boss, had asked him to "refine" the figures on the division's latest project—a portable imaging device code—named ZM. The original estimates called for investment of \$15.6 million and projected annual income of \$1.87 million. Med-Products required an ROI of at least 15 percent for new project approval; so far, ZM's rate of return was nowhere near that hurdle rate. Mel encouraged him to show increased sales and decreased expenses in order to get the projected income above \$2.34 million. Jason asked for a meeting with Mel to voice his concerns.

**Jason:** Mel, I've gone over the figures for the new project and can't find any way to get the income above \$1.9 million. The salespeople have given me the most likely revenue figures, and production feels that the expense figures are solid.

**Mel:** Jason, those figures are just projections. Sales doesn't really know what the revenue will be. In fact, when I talked with Sue Harris, our sales vice president, she said that sales could range from \$1.5 million to \$2.5 million. Use the higher figure. I'm sure this product will justify our confidence in it!

but Sue felt the \$2.5 million the first five years or so that

**Jason:** I know the range of sales was that broad, estimate was pretty unlikely. She thought that during ZM sales would stay in the lower end of the range.

**Mel:** Again, Sue doesn't know for sure. She's just estimating. Let's go with the higher estimate. We really need this product to expand our line and to give our division a chance to qualify for sales-based bonuses. If ZM sells at all, our revenue will go up, and we'll all share in the bonus pool!

**Jason:** I don't know, Mel. I feel pretty bad signing off on ROI projections that I have so little confidence in. **Mel:** (frustrated) Look, Jason, just prepare the report. I'll back you up.

## Required:

- 1. What is the ROI of project ZM based on the initial estimates? What would the ROI be if the income rose to \$2.34 million?
- 2. Do you agree that Jason has an ethical dilemma? Explain. Is there any way that Mel could ethically justify raising the sales estimates and/or lowering expense estimates?
- 3. What do you think Jason should do? Explain.

# 3 ETHICAL ISSUES, ABSORPTION COSTING, PERFORMANCE MEASUREMENT

Ruth Swazey, division controller and certified management accountant, was upset by a recent memo she received from the division manager, Paul Chesser. Ruth was scheduled to present the division's financial performance at headquarters in one week. In the memo, Paul had given Ruth some instructions for this upcoming report. In particular, she had been told to emphasize the significant improvement in the division's profits over last year. Ruth, however, didn't believe that there was any real underlying improvement in the division's performance and was reluctant to say otherwise. She knew that the increase in profits was because of Paul's conscious decision to produce for inventory.

In an earlier meeting, Paul had convinced his plant managers to produce more than they knew they could sell. By doing so, more of the fixed factory overhead could be moved into inventory with the extra units produced. He argued that by deferring some of this period's fixed costs, reported profits would jump. He pointed out two significant benefits. First, by increasing profits, the division could exceed the minimum level needed so that all the managers would qualify for the annual bonus. Second, by meeting the budgeted profit level, the division would be better able to compete for much-needed capital. Ruth had objected but had been overruled. The most persuasive counterargument was that the increase in inventory could be liquidated in the coming year as the economy improved. However, Ruth considered this event unlikely. Based on past experience, she believed that it would take at least two years of improved market demand before the productive capacity of the division was exceeded.

#### Required:

- 1. Discuss the behavior of Paul Chesser, the division manager. Was the decision to produce for inventory an ethical one?
- 2. What should Ruth w do? Should she comply with the directive to emphasize the increase in profits? If not, what options does she have?
- 3. Review the Institute of Management Accountants "Statement of Ethical Professional Practice" found at <a href="https://www.imanet.org/about\_ethics\_statement.asp">https://www.imanet.org/about\_ethics\_statement.asp</a>. Identify any standards that apply in this situation.

## SOLUZIONI

## Problema 1

1. Year 1 Year 2 Year 3 **ROI** 8.00% 6.97% 6.30% Margin 12.00% 11.00% 10.50% Turnover 0.67 0.63 0.60

2. ROI: = 0.08, or 8%

Margin: = 0.12, or 12%

Turnover: = 0.67

The ROI increased because expenses decreased and assets turned over at a higher rate (sales increased).

3. Operating assets:  $$15,000,000 \times 80\% = $12,000,000$ 

ROI: = 0.0788, or 7.88%

Margin: = 0.105, or 10.5%

Turnover: = 0.75

The ROI increased because assets decreased.

4. ROI: = 0.10, or 10%

Margin: = 0.12, or 12%

Turnover: = 0.83

The ROI increased because expenses decreased and assets turned over at a higher rate (sales increased and the amount of assets decreased). Both margin and turnover increased.

## Problema 2

1. ROI based on initial estimates = 0.1199, or 11.99% (rounded)

ROI based on Mel's estimates = 0.15, or 15%

2. Jason is definitely facing an ethical dilemma. While it is true that the sales and expense projections are estimates, they are the best ones available to him. If he uses a sales revenue projection from the top end of the range, he will be deliberately basing the ROI estimate on a highly unlikely sales figure. Sales and expense projections are not fantasy figures; they are supposed to be management's best estimate of what will actually happen. If Jason prepares the report in accordance with Mel's desires, he will be knowingly fabricating data.

One might wonder whether or not Mel's offer to "back up" Jason is sufficient to let Jason off the hook. It is not. If Mel wants the false projections badly enough, let him sign them. Jason may have thought he had his dream job, but it is about to turn into a nightmare. Companies don't take kindly to employees who lie, and this lie is sure to come out. If the project is approved, and the sales do not approach \$2.34 million, you can bet that the vice president of sales will be quick to point out that she predicted only \$1.87 million. Mel will surely pin the blame directly on Jason, the one whose name is on the report.

3. Jason should prepare the report using the figures he thinks are most descriptive of the project's potential. He should feel free to include information about the predicted range of sales and to point out any other information that reflects favorably on the project. If Mel continues to pressure Jason, then Jason might consider looking for another job.

## Problema 3

- 1. Many legitimate reasons support the creation of inventory (e.g., the need to avoid stockouts and the need to ensure on-time delivery). Paul Chesser's reasons, however, are based on self-interest and ignore what's best for the company. Knowingly producing for inventory to obtain personal financial gain at the expense of the company certainly could be labeled as unethical behavior.
- 2. Since the decision to produce for inventory was not motivated by any sound economic reasoning, and Ruth knows the real motive behind the decision, she should feel discomfort in the role she has been asked to assume. If she decides to appeal to higher-level management, the division manager can counter with arguments that inventory was created because he expected the economy to turn around and did not want to be in a position of not having enough goods to meet demand. Even though Ruth may have a difficult time proving any allegation of improper conduct, if she is convinced that the behavior is truly unethical, then appeals to higher-level management with the prospect of ultimate resignation should be the route she takes.

Alternatively, Ruth might decide that the use of absorption costing for internal reporting and bonus calculation has led to this situation. She could lobby higher management to begin using variable costing as a way of avoiding these dysfunctional decisions. Ruth will have a very hard time proving unethical behavior—at worst, Paul may be accused of having poor judgment regarding future economic upturns.

3. The following standards may apply:

Integrity. Refrain from engaging in any conduct that would prejudice carrying out duties ethically. (III-6)

Credibility. Communicate information fairly and objectively. (IV-1) Disclose fully all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations. (IV-2)