LINKING CLASSROOM-PREPARED FINANCIAL STATEMENTS TO REAL-WORLD EVENTS

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ABSTRACT

This paper focuses both on preparing financial statements in an accounting course, as well as using the statements to solve real world problems, such as determining ending inventory values after a fire, hurricane or other catastrophic loss. By seeing how financial statements not only capture and report day-to-day business operations, but also can be used to ascertain acceptable values (or at least beginning points for negotiable values) for items that are physically no longer there, students should better see the whole picture of both "how" financial statements are prepared, as well as "why" the interconnections of the statements are as they are.

OVERVIEW

Most colleges and universities require the equivalent of two three-semester hour courses in principles of accounting. The first course is usually financial accounting and the second course (either in its entirety or at least the last two-thirds of the course) is managerial accounting. The first topics covered in managerial accounting usually consist of comparing the income statement of a merchandising concern (covered in financial accounting) with the income statement for a manufacturing business, with its focus on direct materials, direct labor and manufacturing overhead. Also covered are the three inventories involved in the manufacturing process: raw materials, work-in-process and finished goods. Other terms such as prime costs (direct materials plus direct labor) and conversion costs (direct labor plus manufacturing overhead) are also covered. Following this, several problems are usually worked whereby the accounts are listed and an income statement for a manufacturing operation (including a schedule or statement of the cost of goods manufactured and sold) is prepared. Taking a listing of manufacturing accounts and generating financial statements is an important part of the financial-to-managerial accounting transition that occurs in principles of accounting. In fact, it is an important step in seeing part of the "financial connection to managerial" accounting. However, the proper alignment of the accounts, while important, does not capture the whole picture. Taking accounts and preparing financial statements demonstrates a student's knowledge about "how" the accounts are acceptably presented for external reporting, but the equally important determinant of "why" the interconnections are as they are is often not emphasized or demonstrated. To resolve this dilemma, this paper focuses not only on preparing financial statements in an accounting course, but also on using the statements to solve real world problems, such as determining ending inventory values after a fire, hurricane or other catastrophic loss. (Such an inventory loss determination problem is sometimes present in a textbook, but it is not usually a prominent feature of the material presented.) The proposal of this paper is to have two handout problems similar to the ones used in this paper for students to work and check before working the problems in the textbook. (In fact, one option is to hand out the problems along with the answers so students can work the problems and then check their own answers.) By encouraging students to see the linkages of how financial statements not only capture and report day-to-day business operations, but also can be used in situations such as catastrophic losses to ascertain acceptable values (or at least beginning points for negotiable values) for items that are physically no longer there, students should better understand how financial statements communicate important relevant information about the world around them.

PREPARATION OF A SCHEDULE OF THE COST OF GOODS MANUFACTURED AND SOLD FROM A LISTING OF ACCOUNTS

The following problem represents a situation whereby students can take a list of accounts and prepare a Statement of the Cost of Goods Manufactured and Sold. Based on personal use of similar problems, it has been found that it is helpful to show the inventory amounts separately and it is also very helpful for students to show a separate schedule of manufacturing overhead since identifying the overhead items in the listing of accounts is a big step towards accurately presenting a correct Statement of the Cost of Goods Manufactured and Sold. (Also, it is very handy for grading if a question similar to this ends up on an exam since students will list overhead in various, sometimes hard-to-find, places.) Accordingly, students would be asked to use the information from the following accounts to prepare a Schedule of Manufacturing Overhead and a Cost of Goods Manufactured and Sold Statement. Also note that several accounts are extraneous to the problem solution (such as cash and accounts receivable). While such extraneous information is sometimes present in textbook problems, too often textbooks only provide data that is needed to ascertain the solution to the problem presented.

Inventories	
Raw Materials, Beginning	$ 50
Raw Materials, Ending	65
Work In Process, Beginning	20
Work In Process, Ending	25
Finished Goods, Beginning	85
Finished Goods, Ending	74

Administrative Expenses	$ 60
Cash	70
Direct Labor	120
Depreciation - Factory Equipment	30
Depreciation - Office Equipment	4
Indirect Materials	7
Non-factory Office Supplies	6
Factory Utilities	8
Indirect Labor	25
Insurance Expense - Factory	2
Accounts Receivable	12
Net Sales	560
Purchases of Raw Materials	160
Factory Repairs	3
Selling Expenses	75

Schedule of Manufacturing Overhead

Cost of Goods Manufactured and Sold Statement

Solution:

Inventories	
Raw Materials, Beginning	$ 50
Raw Materials, Ending	65
Work In Process, Beginning	20
Work In Process, Ending	25
Finished Goods, Beginning	85
Finished Goods, Ending	74

Administrative Expenses	$ 60
Cash	70
Direct Labor	120
Depreciation - Factory Equipment	30
Depreciation - Office Equipment	4
Indirect Materials	7
Non-factory Office Supplies	6
Factory Utilities	8
Indirect Labor	25
Insurance Expense - Factory	2
Accounts Receivable	12
Net Sales	560
Purchases of Raw Materials	160
Factory Repairs	3
Selling Expenses	75

Schedule of Manufacturing Overhead	
Depreciation - Factory Equipment	$ 30
Indirect Materials	7
Factory Utilities	8
Indirect Labor	25
Insurance Expense - Factory	2
Factory Repairs	3
Total	$ 75

Cost of Goods Manufactured and Sold Statement

Beginning Inventory Raw Materials	$	50,000
+ Purchases of Raw Materials	+	160,000
Raw Materials Available	$	210,000
- Ending Inventory Raw Materials	-	65,000
Raw Materials (or Direct Materials) Used	$	145,000
+ Direct Labor	+	120,000
+ Manufacturing Overhead:		
(See Schedule Above)	+	75,000
Total Manufacturing Costs	$	340,000
+ Beginning Inventory Work-In-Process	+	20,000
- Ending Inventory Work-In-Process	-	25,000
Cost of Goods Manufactured	$	335,000
+ Beginning Inventory Finished Goods	+	85,000
- Ending Inventory Finished Goods	-	74,000
Cost of Goods Sold	$	346,000

USING THE SCHEDULE OF THE COST OF GOODS MANUFACTURED AND SOLD TO DETERMINE INVENTORY VALUES AFTER A CATASTROPHIC LOSS

On Wednesday evening, October 1, 2008, a factory was destroyed by Hurricane Hank. Sadly, the entire factory is totally destroyed and the inventory is nowhere to be found. Fortunately, certain accounting records were kept in electronic form and were saved at the home office (several states away) and were not affected by the hurricane. These records reveal the following for the period December 31, 2007 – October 1, 2008 (the date of the hurricane):

Direct Materials purchased, $155,000
Total Prime Costs, $440,000
Work-In-Process, 12/31/07, $85,000
Cost of Goods Manufactured, $800,000
Direct Materials, 12/31/07, $25,000
Direct Labor, $300,000
Factory Overhead equals 125 percent of direct labor
Finished Goods, 12/31/07, $18,000
Gross Profit (or Gross Margin), $150,000
Net sales, $900,000

The loss was fully covered by insurance. The insurance company wants to know the approximate cost of the inventories as a basis for negotiating a settlement, which is really to be based on replacement cost, not historical cost. Calculate the cost of::

(1) Direct Materials Inventory, October 1, 2008_____

(2) Work-In-Process Inventory, October 1, 2008_____

(3) Finished Goods Inventory, October 1, 2008_____

Solution:

BI Direct Material	$ 25,000
+ Direct Material Purchases	+155,000
Direct Material Available	$180,000
- EI Direct Material	- 40,000 (Answer 1)
Direct Material Used	$140,000
+ Direct Labor	+300,000
	= $440,000 Prime Costs
+ Overhead	+375,000 = 125% of $300,000 = $375,000
Cost of Manufacturing	$815,000
+ BI Work-In-Process	+ 85,000
- EI Work-In-Process	- 100,000 (Answer 2)
Cost of Goods Manufactured	$800,000
+ BI Finished Goods	+ 18,000
- EI Finished Goods	- 68,000 (Answer 3)
Cost of Goods Sold	$750,000

Sales	$ 900,000
- Cost of Goods Sold	- 750,000
Gross Profit	$ 150,000

SUMMARY AND CONCLUSIONS

Two types of problems were presented in this paper. The first problem focused on students being asked to prepare a financial statement from a listing of accounts. This is a very important type of problem since the preparation of financial statements is often the final step in presenting financial data to external users. However, the preparation of these types of financial statements focuses only on "how" to prepare the statements. Students need to not only know "how" to do things, but also "why" they are being done. The second problem focused on using the information to resolve a dilemma that might arise in the real world. The second assignment demonstrates that accounting is, indeed, about providing information. Accounting, however, is not only about providing information for external users such as shareholders, creditors, and governmental agencies such as the Internal Revenue Service, it is also useful in resolving day-to-day situations such as calculating at least a starting point for insurance negotiations for ending inventory values of manufacturing inventories when they are destroyed by a catastrophic event such as a fire or hurricane. By using two problems such as the ones shown in this paper, and preferably using them as soon as possible (even as the first two efforts by students to assimilate the material), students should find the material more relevant (and hopefully easier to retain) since it is linked to familiar examples that the students identify with day-to-day events in the real world.