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Rivera Custom Cabinetry: Financial Statement Analysis Using Excel

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Case Study

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This case illustrates the impact of various business transactions on a firm's financial statements. The case objective is to highlight how business transactions affect financial statements and to illustrate the links between financial statements and key ratios. The case was developed and piloted as a final project in an introductory accounting class and as an accounting review in a corporate finance course. In each part of the case, students are asked to show the impact of a business transaction on the firm's balance sheet and income statement. The cash flow statement and financial ratios calculate automatically. Part 1 of the case focuses on the transactions involved in establishing the company. Part 2 illustrates basic operating transactions. Part 3 considers the impact of growth and leverage.

INTRODUCTION

PART 1: BUSINESS START UP

Tomas Rivera had been interested in owning his own business for as long as he could remember. After completing college and working for several years, he is contemplating setting up his own business, Rivera Custom Cabinetry (RCC). Tomas believes that demand for custom cabinets will continue to rise in his target markets of Fairfield County, Connecticut and neighboring Westchester County, New York. As a close friend and possible investor in the new firm, you have offered to assist Tomas with his analysis. You have volunteered to prepare financial statements for the firm to assist in analysis of the future profitability and funding needs of the firm.

Instructions

RCC plans to set up December 1, 2010. The firm's fiscal year end will be December

31st. To assist Tomas Rivera you must evaluate the impact of each of the following transactions on the firm's financial statements and ratios. You will show the results in Excel using the excel template provided.

For each transaction listed below you must record the transaction to show the impact on the balance sheet and the income statement. If you record the entries correctly, you will see a "balance" comment in the balance check row. If your entry is incorrect, "Does not balance" will appear and you can then reconsider your entry.

The impact of the transaction on the statement of retained earnings, statement of cash flows and select financial ratios will appear automatically since we have designed appropriate formulas into the template. Financial ratios are calculated only once all transactions have been completed. Please remember to check two things after recording a transaction:

1) Does the balance sheet balance?

2) Does the ending cash balance from the cash flow statement match the cash value in the balance sheet?

The transactions you are to record follow. We will demonstrate the process using the first transaction.

1) Tomas plans to capitalize the firm with $200,000 in savings.

2) RCC buys property for $550,000, comprised of land valued at $300,000; building valued at $200,000; and equipment valued at $50,000. RCC finances the purchase with 20% cash and the balance with a 30 year mortgage at 4%. The first payment will be due on January 1st. Go to the Mortgage sheet and fill the yellow areas. For the payment, you must use the PMT function of excel. This is a type 0 loan. Remember that the interest for each payment will be 1/12 of the annual interest rate.

3) RCC buys inventory of $50,000, financed half cash and half on account.

4) It is now December 31st. Compute the depreciation using the straight line depreciation method with the half- year rule. The building will be depreciated over 20 years and the equipment over 5 years. Neither the building nor the equipment has a residual value.

5)Since it is year-end you must also calculate the interest expense on the mortgage.

Demonstration: transaction 1

The balance sheet entry to record transaction 1 is:

Assets: Cash 200,000
Shareholders equity: Common stock 200,000

Enter 200,000 for cash and shareholder's equity on the balance sheet. Once you make the entry on the balance sheet, it will appear as follows and you will see the "balances" comment at the bottom. This transaction does not impact the income statement so no entry is required there.

Income Statement

Revenues							
Sales	$ -						$ -
Cost of Goods Sold	-						-
Inventory at beginning	-						-
Purchases	-	-	-	-	-	-	-
Inventory at the end	-	-	-	-	-	-	-
Cost of Goods Sold	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gross Profit	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Expenses							
Selling and Administrative	-						-
Depreciation							-
Amortization							-
Other							-
Selling and Administrative	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Income before Interest and Income Taxes	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest	-						-
Net Income before Income Taxes	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Income Taxes	-						-
Net Income	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Statement of Retained Earnings

Retained Earnings at beginning	$ -						$ -
Plus: Net Income	-	-	-	-	-	-	-
Less: Dividends							-
Retained Earnings at the end	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Statement of Cash Flows

Operating Activities							
Net Income	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Adjustment for non-cash items							
Depreciation	-	-	-	-	-	-	-
Decrease (Increase) in Accounts Receivable Net	-	-	-	-	-	-	-
Decrease (Increase) in Inventory	-	-	-	-	-	-	-
(Decrease) Increase in Accrued Expenses	-	-	-	-	-	-	-
(Decrease) Increase in Accounts Payable	-	-	-	-	-	-	-
Cash Flows from Operations	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Investing Activities							
Sale of Equipment	-	-	-	-	-	-	-
Acquisition of Land	-	-	-	-	-	-	-
Acquisition of Building	-	-	-	-	-	-	-
Acquisition of Equipment	-	-	-	-	-	-	-
Cash Flows from Investing	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Financing Activities							
Short-term Bank Borrowing	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bank Note Issued	-	-	-	-	-	-	-
Preferred Stock Issued	-	-	-	-	-	-	-
Common Stock Issued	-	200,000	-	-	-	-	200,000
Dividends	-	-	-	-	-	-	-
Cash Flows from Financing	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000
Net Change in Cash Flows		200,000	-	-	-	-	200,000
Cash Flows at beginning	-						-
Cash Flows at the end	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000
Balance Check for cash flows	Balances	Balances	Balances	Balances	Balances	Balances	Balances

Financial Analysis in Excel

	Beginning	Transactions #1	#2	#3	#4	#5	Ending
Balance Sheet							
Assets							
Current Assets							
Cash	$ -	$ 200,000					$ 200,000
Accounts Receivable	-						-
Allowance for Doubtful Accounts	-						-
Prepaid Expenses	-						-
Inventory	-						-
Total Current Assets:	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000
Property, Plant & Equipment							
Land	$ -						$ -
Building	-						-
Equipment	-						-
Less Cumulative Depreciation	-						-
Total PPE:	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Assets:	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000
Liabilities and Shareholders' Equity:							
Current Liabilities:							
Bank Notes Payable	$ -						$ -
Accounts Payable	-						-
Accrued Expenses	-						-
Total Current Liabilities:	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Noncurrent Liabilities							
Mortgage Payable	-						-
Total Noncurrent Liabilities:	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Shareholders' Equity							
Preferred Stock	$ -						$ -
Common Stock	-	200,000					200,000
Retained Earnings	-						-
Total Shareholders' Equity	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000
Total Liabilities & Shareholders' Equity:	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000
Balance Check	Balances	Balances	Balances	Balances	Balances	Balances	Balances

There is no impact on retained earnings so the statement of retained earnings shows no impact. Financial ratios are calculated at the end only. The impact on the cash flow statement appears automatically. Note that the $200,000 automatically appears as a financing cash flow and the ending cash balance on the cash flow statement matches the balance sheet value of $200,000. Record transaction 2 through 5 remember to check after each transaction that the balance sheet balances and the ending cash balance on the cash flow statement matches balance sheet value.

Analyze the results

Now consider the impact of the following changes on the above results.

1. Suppose instead that the property of $550,000 consisted of land of $200,000 and building of $350,000. Consider the impact at the end of the 5 transactions on net income, taxes, cash flow and retained earnings.
2. What if the cash payment on the property comprised 30% instead of 20%? Find theimpact on cash flow, net income and retained earnings.
3. Suppose all inventory was purchased on credit. How does this impact cash flow?

PART 2: FIRST MONTH OPERATIONS

Instructions

In Part 1 of the Rivera Custom Cabinetry case, you assisted Tomas Rivera, founder of the firm, by preparing financial statements to reflect the set up of the business. Rivera Custom Cabinetry has been set up and is now operating. The firm now has $50,000 in inventory and sufficient equipment for initial operations.

Before considering the transactions below, examine the template. Notice that the financial statements are now more detailed. We have included additional accounts that you will now need to reflect the firm's operations. Record the transactions on the balance sheet and income statement as before.

1. On January 5, 2010 Rivera receives an order for cabinets worth $50,000. The customer deposits 30% cash and will pay the balance upon delivery.
Rivera purchases cabinets for the customer from a supplier for $25,000 in cash. He will need to refinish and customize the cabinets prior to delivery.
2. In refinishing and customizing the cabinets, RCC incurs $5000 in production costs, comprised of $2500 in labor costs paid in cash and $2500 in materials purchased on account (due in 30 days). All these cost are variable costs.
3. Rivera delivers the cabinets to the customer and receives the balance of $35,000.
   Hint # 1: What happens to the advance from customer?
   Hint # 2: What happens to inventory and cost of goods sold?
   You will need to make entries in 5 accounts.

4. RCC has no other transactions during the month. Prepare the month end entries for Depreciation, interest expense, and taxes at a rate of 35%.

Hint # 1: Remember the half-year rule for depreciation

Hint #2: If you have a loss, increase your taxes receivable.

Analyze the results

1. Suppose that the $50,000 order had a 20% deposit. How do the results change?
2. Suppose all production costs are paid in cash. Do your results change significantly?

PART 3: ANALYSIS OF YEAR ONE FORECAST AND OPERATING DECISIONS

In Parts 1 and 2 of the Rivera Custom Cabinetry case, you assisted Tòmas Rivera, founder of the firm, by preparing financial statements to reflect the initial set up and first month of operations of the business. Rivera Cabinetry is now in the middle of its first year of operations and Tomas has asked for your assistance in projecting the impact of expected business transactions and operating decisions on the financial stätements for the second year. Tomas is particularly interested in the expected impact on cash flow. Record the transactions on the balance sheet and income statement as before.

1. Sales are expected to be $1,000,000. At the end of the year, Tomas estimates that 90% of the amount will have been received while 10% will still be receivable.
2. The cost of the cabinets will represent 50% of the sales. Tomas estimates that 90% of the amount will have been paid while 10% will still be payable.
3. Installation costs will represent 20% of the sales. Marketing expenditures will total $50,000. The amount payable at the end of the year will be negligible.
4. RCC sold its equipment for $25,000. It purchased new equipment for $100,000 in cash. This equipment has a useful life of 5 years and has no residual value. Remember the half-year rule for the new equipment.
5. In addition to production costs, Tomas plans to take a salary of $50,000. Remember your depreciation, mortgage payments and taxes. Assume you pay your taxes immediately and that you will pay the expense for the year minus the amount receivable from losses from previous years.

Analyze the results

1. Suppose that only 75% of the sales have been received. What impact does this have on the firm?
2. Suppose that the firm can alter production so that the cost of cabinets rises to 60% of sales but installation costs fall to 10%. Does this have any impact on the firm's cash flow or financial ratios?
3. What if RCC delays purchasing the new equipment. How do the firm's results change?