



the Autonomous Management School of
Ghent University and Katholieke Universiteit Leuven

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Case Report: Thomas Quinn Manufacturing

Financial Accounting

Prof. Dr. Filip Roodhooft

Kristof Geilenkotten
Stijn De Ceuster
Wim Goedefroy
Lieven Dewispelaere
Leonardo Finizola E Silva

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1 Analysis of the events of the first year of operations

- A. TQM would sell 100 duplicators during the first year. The sale price of the duplicator would be \$ 12.000.
→ Total sale price of the duplicators during the first year would be \$ 1.200.000.

An estimated 75% of the sales would be collected during the year of sale, and the remaining 25% during the following year.

- 75% of \$ 1.200,000 = \$ 900.000 would be collected during the first year,
25% of \$ 1.200.000 = \$ 300.000 would be collected during the following year.

- B. Raw materials totaling \$ 342.000 would be purchased and paid for in the first year of operations.

- During the first year there would be a payment in cash of \$ 342.000 in order to purchase the raw materials.

- C. The firm would make the required interest and principal payments on the bank loan.

- During the pre-production stage of the company, TQM obtained a five-year \$ 25.000 loan (notes payable in pre-production Balance Sheet) from the bank. The loan was to be repaid in five equal annual installments, plus 12 percent interest payable annually.

This means that this year (and the next four years) TQM has to repay an annual installment of $\$ 25.000/5 = \$ 5.000$.

Furthermore, as the outstanding amount of the loan during the first year is \$ 25.000, TQM has to pay an interest of 12% of \$ 25.000 = \$ 3.000.

- D. Direct labour costs for production in the first year would be \$ 48.000. Selling and marketing costs were estimated to be \$ 450.000. General and administrative expenses would amount to \$ 120.000. All these expenses would be paid during the year.

- During the first year expenses would be paid in cash for a total amount of \$ $48.000 + \$ 450.000 + \$ 120.000 = \$ 618.000$.

- E. Additional equipment costing \$ 165.000 would be purchased and paid for near the beginning of the year.

- During the first year there would be a payment in cash of \$ 165.000, in order to purchase the additional equipment.

- F. Raw materials on hand at the end of the first year would total \$ 16.000.

- After event B , raw materials are totaling \$ 4.000 (asset at the beginning of the first year – see pre-production Balance Sheet) + \$ 342.000 = \$ 348.000. As we have no information in what way the raw materials are decreasing from \$ 348.000 to \$ 16.000, we consider the decrease as an expense.

- G. The equipment and software were estimated to have a six-year life and a 15-year life, respectively.

- At the end of the first year we would have to make an adjustment to the value of the assets equipment and software.

Near the beginning of the year equipment would be totaling \$ 15.000 (asset at the beginning of the first year – see pre-production Balance Sheet) + \$ 165.000 = \$ 180.000. Software would be totaling \$ 30.000.
 The depreciation of the equipment at year-end would be \$ 180.000/6 = \$ 30.000.
 The depreciation of the software at year-end would be \$ 30.000/15 = \$ 2.000.

- H. The firm would keep no finished inventory of duplicators on hand.
- I. Income taxes were estimated to be 35% of the pre-tax income.
- J. TQM would pay a cash dividend of \$ 0.35 a share.
 → As there are 400.000 shares of TQM, the total dividend to be paid in cash would be $400.000 \times \$ 0,35 = \$ 140.000$.

2 Open the ledger accounts with their unadjusted balances

ASSETS			
<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">cash</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">\$ 516.000,00</div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">raw materials</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">\$ 4.000,00</div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">equipment</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">\$ 15.000,00</div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">software</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">\$ 30.000,00</div>
<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">accounts receivable</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">accr deprec equipment</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">accr deprec software</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	
LIABILITIES			
<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">notes payable</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">\$ 25.000,00</div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">tax payable</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>		
STOCKHOLDER'S EQUITY			
<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">common stock</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">\$ 540.000,00</div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">dividends</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>		
REVENUE			
<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">sales revenue</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>			
EXPENSES			
<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">interest expense</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">labour expense</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">selling and marketing exp</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">general and admin expense</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>
<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">material expense</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">depr. expense-equipment</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">depr. Expense-software</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">income tax expense</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div>

3 Journal entries

Based upon the analysis of the operations during the first year, the following journal entries can be made.

event	journal	debit	credit
A	cash accounts receivable revenue	\$ 900.000 \$ 300.000	\$ 1.200.000
B	raw materials cash	\$ 342.000	\$ 342.000
C	notes payable interest expense cash	\$ 5.000 \$ 3.000	\$ 8.000
D	direct labour costs selling and marketing costs general and administrative expenses cash	\$ 48.000 \$ 450.000 \$ 120.000	\$ 618.000
E	equipment cash	\$ 165.000	\$ 165.000
F	raw materials expense raw materials	\$ 330.000	\$ 330.000
G	depreciation expense - equipment accumulated depreciation - equipment depreciation expense - software accumulated depreciation - software	\$ 30.000 \$ 2.000	\$ 30.000 \$ 2.000
H			
I	income tax expense cash tax payable	\$ 75.950	\$ 30.380 \$ 45.570
J	dividends cash	\$ 140.000	\$ 140.000

4 Posting in the ledger accounts

All entries are posted in the ledger accounts as follows.

ASSETS

cash	
\$ 516.000,00	
(A) \$ 900.000,00	
	\$ 342.000,00 (B)
	\$ 8.000,00 (C)
	\$ 618.000,00 (D)
	\$ 165.000,00 (E)
	\$ 30.380,00 (I)
	\$ 140.000,00 (J)
Bal. \$ 112.620,00	

raw materials	
\$ 4.000,00	
(B) \$ 342.000,00	
	\$ 330.000,00 (F)
Bal. \$ 16.000,00	

equipment	
\$ 15.000,00	
(E) \$ 165.000,00	
Bal. \$ 180.000,00	

software	
\$ 30.000,00	
Bal. \$ 30.000,00	

accounts receivable	
(A) \$ 300.000,00	
Bal. \$ 300.000,00	

accr deprec equipment	
	\$ 30.000,00 (G)
Bal. \$ 30.000,00	

accr deprec software	
	\$ 2.000,00 (G)
Bal. \$ 2.000,00	

LIABILITIES

notes payable	
	\$ 25.000,00
(C) \$ 5.000,00	
Bal. \$ 20.000,00	

tax payable	
	\$ 45.570,00 (I)
Bal. \$ 45.570,00	

STOCKHOLDER'S EQUITY

common stock	
	\$ 540.000,00
Bal. \$ 540.000,00	

dividends	
(J) \$ 140.000,00	
Bal. \$ 140.000,00	

REVENUE

sales revenue	
	\$ 1.200.000,00 (A)
Bal. \$ 1.200.000,00	

EXPENSES					
	interest expense			labour expense	
(C)	\$	3.000,00		(D)	\$ 48.000,00
Bal.	\$	3.000,00		Bal.	\$ 48.000,00
	selling and marketing exp			general and admin expense	
(D)	\$	450.000,00		(D)	\$ 120.000,00
Bal.	\$	450.000,00		Bal.	\$ 120.000,00
	material expense			depr. expense-equipment	
(F)	\$	330.000,00		(G)	\$ 30.000,00
Bal.	\$	330.000,00		Bal.	\$ 30.000,00
	depr. Expense-software			income tax expense	
(G)	\$	2.000,00		(C)	\$ 75.950,00
Bal.	\$	2.000,00		Bal.	\$ 75.950,00

5 Trial Balance

Assumptions taken: Depreciation, Tax and dividends were all done during the adjustment.
Tax and Dividend were depending on the results.

Account title	Trial Balance		Adjustments		adjusted trial balance	
	debit	credit	debit	credit	debit	credit
Cash	283000			170380	112620	0
Raw Materials	16000				16000	0
Equipment	180000				180000	0
software	30000				30000	0
ACC dep EQ				30000	0	30000
ACC dep SW				2000	0	2000
Acc Rec	300000				300000	0
Notes payable		20000			0	20000
Common stock		540000			0	540000
retained earnings					0	0
revenues		1200000			0	1200000
Expenses interest	3000				3000	0
Expenses labour	48000				48000	0
sales marketing	450000				450000	0
general expenses	120000				120000	0
Material expense	330000				330000	0
equipment expenses			30000		30000	0
SW expense			2000		2000	0
Expenses tax			75950		75950	0
tax payable				45570	0	45570
Dividends			140000		140000	0
					0	0
					0	0
					0	0
					0	0
					0	0
	1760000	1760000	247950	247950	1837570	1837570

6 Financial statements

6.1 Income statement

Income Statement

Sales		1,200,000
Less Cost of Sales:		
Raw Materials	330,000	
Direct labour	48,000	
Depreciation Software	2,000	
Depreciation Equipment	30,000	
Cost of Sales		<u>410,000</u>
Gross Margin		790,000
Operating Expenses:		
Sales & Marketing	450,000	
General	120,000	
Operating Expenses		<u>570,000</u>
Operating Income		220,000
Other revenues(expenses)		
Interest Expense	-3,000	
Other Revenues and Expenses		<u>-3,000</u>
Net Income before taxes		<u>217,000</u>
Less: Income Tax		<u><u>-75,950</u></u>
Net Income		141,050

6.2 Statement of retained earnings

Thomas Quinn Manufacturing Statement of Retained Earnings for the year ended December 31, 200X	
Retained Earnings 1/1/200X	\$ -
Net Income	\$ 141.050
	<u>\$ 141.050</u>
Dividends	\$ 140.000
Retained Earnings 12/31/200X	\$ 1.050

6.3 Balance Sheet

ASSETS		LIABILITIES AND SHAREHOLDERS' EQUITY	
Current Assets		Current Liabilities	
Cash	112,620	Notes Payable Next Year	5,000
Accounts Receivable	300,000	Taxes Payable	45,570
Raw Materials	16,000	Current Liabilities	50,570
Total Current Assets	428,620	Non Current Liabilities	
Non Current Assets		Notes Payable	15,000
Equipment	180,000	Non Current Liabilities	15,000
Less: Depreciation Eq	-30,000	Total Liabilities	
Software	30,000		65,570
Less: Depreciation So	-2,000	Shareholders' Equity	
Total Non Current Assets	178,000	Common Stock	540,000
		Retained Earnings	1,050
		Shareholders' Equity	541,050
Total Assets	606,620	Total Liabilities and S.E.	606,620

6.4 Cash flow statement

Cash Flow Statement

Cash Flows - Operating activities	
Net Income	\$ 141,050
Adjustments to reconcile net income to net cash provided by operating activities	
Depreciation	32,000
Changes in operating working capital	
Accounts receivable	-300,000
Raw Materials	-12,000
Tax Payable	45,570
Net change in operating working capital	-266,430
Net cash provided by operating activities	-93,380
Cash Flows - Investing Activities	
Buying Equipment	-165,000
Net cash used in investing activities	-165,000
Cash Flows - Financing Activities	
Repayments of long term debt	-5,000
Dividends paid	-140,000
Net cash used in financing Activities	-145,000
Net (Decrease) Increase in Cash and Cash Equivalents	-403,380
Cash and Cash Equivalents - Beginning of Year	516,000
Cash and Cash Equivalents - End of Year	\$ 112,620