

BACHELOR of ECONOMICS



**Thammasat University
Faculty of Economics
Bachelor of Economics (International Program)**

AC201

Fundamental Accounting

Semester 2/2011
(January - April, 2012)

Course Materials

Topic:

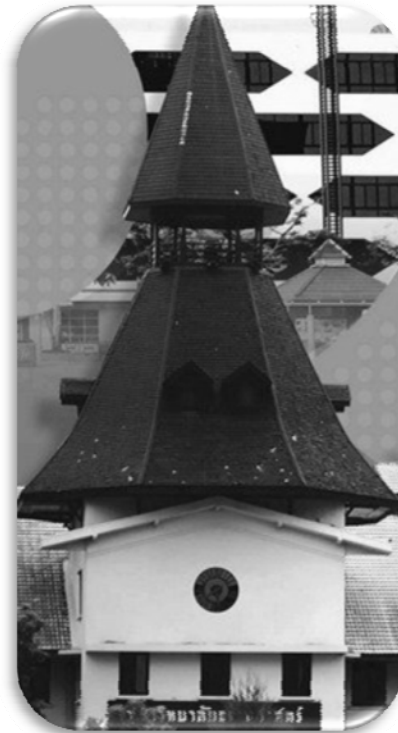
Chapter 03 Operating Decisions and the
Income Statement

Session:

Session #3

Instructor:

Ajarn Santana Singhasaneh





BACHELOR of ECONOMICS



CHAPTER 3: OPERATING DECISIONS AND THE INCOME STATEMENT

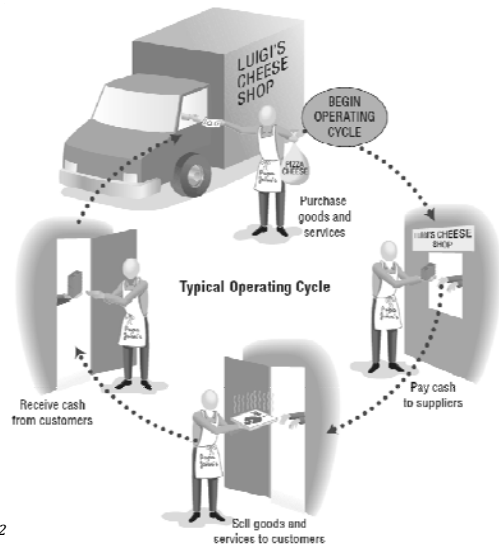
Ajarn Santana Singhasaneh
Department of Accounting
Thammasat Business School
Thammasat University



How do Business Activities Affect the Income Statement ?



The Operating Cycle



The Operating Cycle

Operating (Cash-to Cash) Cycle
is the time it takes
to receives goods or services from suppliers,
to pay cash to suppliers,
to sell them to customers, and
to collect cash from customers.

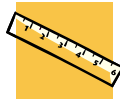
Time Period Assumption
To measure and report financial information
periodically, we assume that
the long life of a company
can be cut into shorter period.



The Operating Cycle

Issues arise in reporting periodic income to users:

1. **Recognition Issues:** *When* should the effects of operating activities be recognized (recorded)?
2. **Measurement Issues:** *What amounts* should be recognized ?

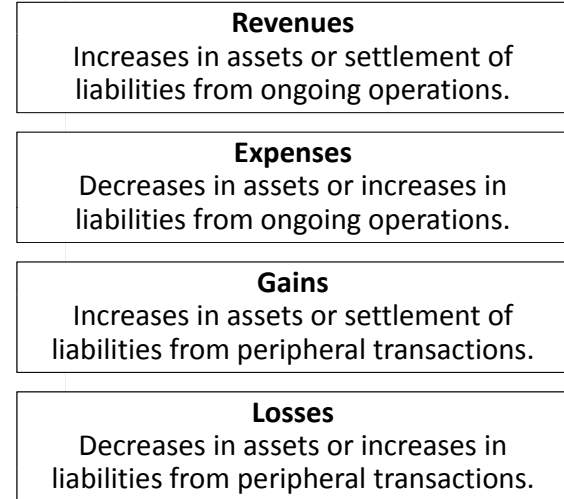


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Elements on the Income Statement



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PAPA JOHN'S INTERNATIONAL, INC. Consolidated Statement of Income For the Year Ended December 31, 2008 (dollars in thousands)

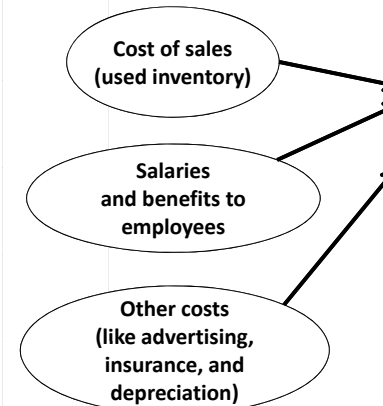
Operating Revenues			
Restaurant sales revenue	\$ 996,000		
Franchise fee revenue	136,000		
Total revenues	1,132,000		
Operating Expenses			
Cost of sales	483,000	} <i>Operating activities (central focus of the business)</i>	
Salaries expense	193,000		
Rent expense	35,000		
Advertising expense	49,000		
General and administrative expenses	100,000		
Depreciation expense	33,000		
Other operating expenses	172,000		
Total expenses	1,065,000		
Operating Income	67,000		← Subtotal of operating revenues minus operating expenses
Other Items			
Investment income	1,000	} <i>Peripheral activities (not the main focus of the business)</i>	
Interest expense	(8,000)		
Loss on restaurants sold	(3,000)		
Income before Income Taxes	57,000	← Subtotal of all revenues minus all expenses except taxes	
Income tax expense	20,000		
Net Income	\$ 37,000		
Earnings per Share	\$ 1.32	← = \$37,000,000 Net Income ÷ 28,100,000 Average Number of Shares Outstanding (from Papa John's annual report)	

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Papa John's Primary Operating Expenses



PAPA JOHN'S INTERNATIONAL, INC. Consolidated Statement of Income For the Year Ended December 31, 2008 (dollars in thousands)	
Operating Revenues	
Restaurant sales revenue	\$ 996,000
Franchise fee revenue	136,000
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Operating Income	67,000
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Loss on restaurants sold	(3,000)
Income before Income Taxes	57,000
Income tax expense	20,000
Net Income	\$ 37,000
Earnings per Share	\$ 1.32

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International Perspective



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As indicated in Chapter 2, under IFRS, the income statement is usually titled the Statement of Operations. There is also a difference in how expenses may be reported:

	GAAP	IFRS
Presentation of Expenses		
<ul style="list-style-type: none"> Similar expenses are reported, but may be grouped in different ways 	Public companies categorize expenses by business function (e.g., production, research, marketing, general operations).	Companies can categorize expenses by either function or nature (e.g., salaries, rent, supplies, electricity).

In addition, foreign companies often use account titles that differ from U.S. companies. For example, GlaxoSmithKline (a U.K. pharmaceutical company), Parmalat (an Italian food producer of milk, dairy products, and fruit-based beverages), and Unilever (a U.K. and Netherlands-based company supplying food, home, and personal care products such as Hellman's mayonnaise, Dove soap, and Popsicle treats) use the term *turnover* to refer to sales revenue, *finance income* for income from investments, and *finance cost* for interest expense. BMW Group, on the other hand, reports *revenues* and uses *financial result* for the difference between income from investments and interest expense. All four companies follow IFRS.

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How are Operating Activities Recognized and Measured ?

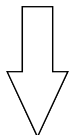


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How Are Operating Activities Recognized and Measured?

Cash Basis



Revenues are recorded when cash is received.

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Expenses are recorded when cash is paid.



How Are Operating Activities Recognized and Measured?

Accrual Basis

Revenues and expenses should be recognized when the transaction that causes them occurs, **NOT necessarily when cash is paid or received.**

Required by –
Generally Accepted Accounting Principles

GAAP



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How Are Operating Activities Recognized and Measured?

Accrual Basis

Basic accounting principles that determine **when** revenues and expenses are recorded:

1. *Revenue principle*
2. *Matching principle*



Revenue Principle

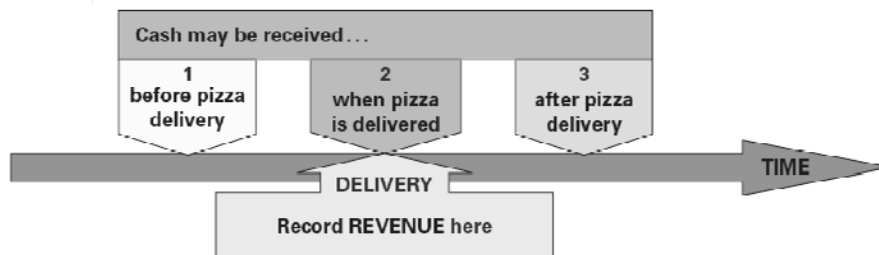
ALL 4 criteria must be met for **Revenue** to be recognized:

1. **Delivery** has occurred or services have been rendered.
2. There is persuasive evidence of an arrangement for customer **payment**.
3. The **price** is fixed or determinable.
4. **Collection** is reasonably assured.
regardless of when cash is paid.



Revenue Principle

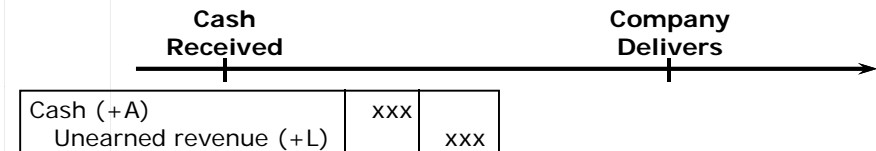
Recording revenues v/s cash receipts



Revenue Principle

If cash is received before the company delivers goods or services, the liability account **UNEARNED REVENUE** is recorded.

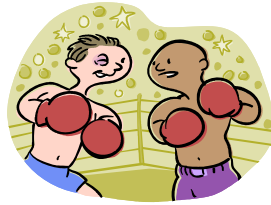
Cash received **before** revenue is earned -





Matching Principle

Expenses are recognized when they are incurred in generating revenue, *regardless of when cash is paid.*



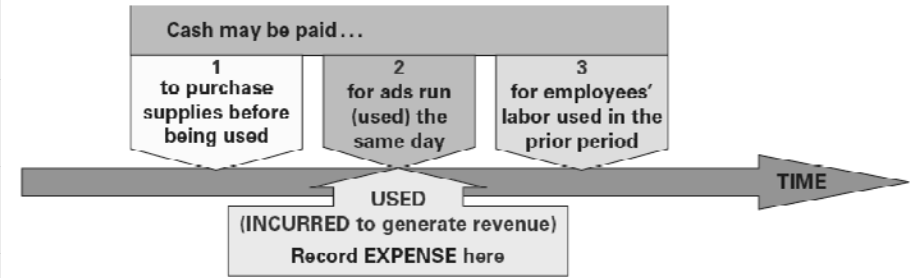
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Matching Principle

Recording expenses v/s cash payments



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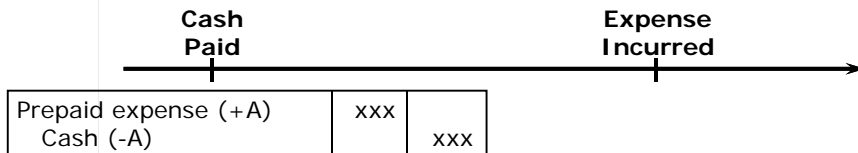
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Matching Principle

If cash is paid before the company receives goods or services, an asset account, **PREPAID EXPENSE** is recorded.

Cash is paid **before** expense is incurred -



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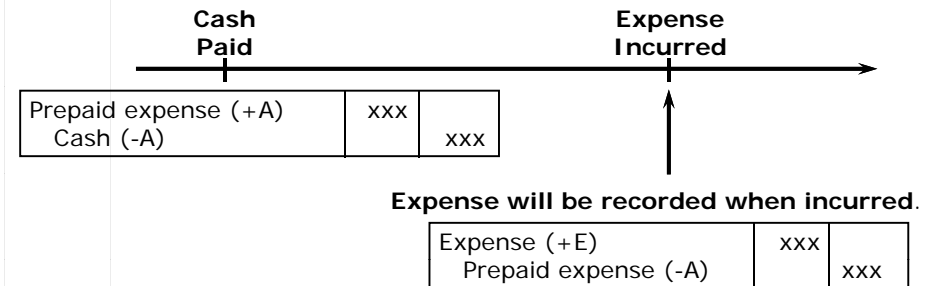
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Matching Principle

When the expense is incurred **PREPAID EXPENSE** is reduced and an **EXPENSE** is recorded.

Cash is paid **before** expense is incurred -



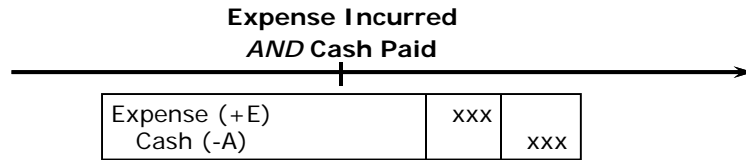
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Matching Principle

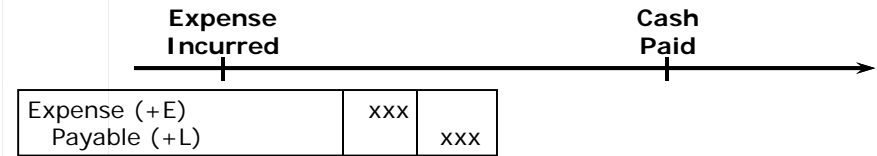
When cash is paid on the date the expense is incurred, the following entry is made:



Matching Principle

If cash is paid after the company receives goods or services, a liability *PAYABLE* is recorded.

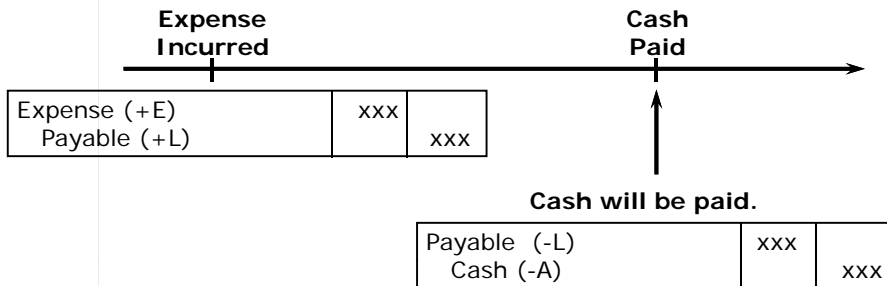
Cash paid **after** expense is incurred -



Matching Principle

When cash is paid the *PAYABLE* is reduced.

Cash paid **after** expense is incurred -



Matching Principle

Typical assets and their related expense accounts include. . .

CASH PAID FOR	as used over time becomes	EXPENSE
Supplies inventory	→	Supplies expense
Prepaid insurance	→	Insurance expense
Buildings and equipment	→	Depreciation expense

A Question of Ethics

Management's Incentives to Violate Accounting Rules

Investors in the stock market base their decisions on their expectations of a company's future earnings. When companies announce quarterly and annual earnings information, investors evaluate how well the companies have met expectations and adjust their investing decisions accordingly. Companies that fail to meet expectations often experience a decline in stock price. Thus, managers are motivated to produce earnings results that meet or exceed investors' expectations to bolster stock prices. Greed may lead some managers to make unethical accounting and reporting decisions, often involving falsifying revenues and expenses. While this sometimes fools people for a short time, it rarely works in the long run and often leads to very bad consequences.

Fraud is a criminal offense for which managers may be sentenced to jail. Samples of fraud cases, a few involving faulty revenue and expense accounting, are shown below. Just imagine what it must have been like to be 65-year-old Bernie Ebbers or 21-year-old Barry Minkow, both sentenced to 25 years in prison for accounting fraud.

The CEO	The Fraud	Conviction/Plea	The Outcome
Bernard Madoff, 71 Madoff Investment Securities	Scammed \$50 billion from investors in a Ponzi scheme in which investors receive "returns" from money paid by subsequent investors.	Confessed, December 2008	Sentenced to 150 years
Bernie Ebbers, 65 Worldcom	Recorded \$11 billion in operating expenses as if they were assets.	Convicted, July 2005	Sentenced to 25 years
Sanjay Kumar, 44 Computer Associates	Recorded sales in the wrong accounting period.	Pleaded guilty, April 2006	Sentenced to 12 years
Martin Grass, 49 Rite Aid Corporation	Recorded rebates from drug companies before they were earned.	Pleaded guilty, June 2003	Sentenced to 8 years
Barry Minkow, 21 ZZZZ Best	Made up customers and sales to show profits when, in reality, the company was a sham.	Convicted, December 1988	Sentenced to 25 years

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Many others are affected by fraud. Shareholders lose stock value, employees may lose their jobs and pension funds, as in the case of Enron, and customers and suppliers may become wary of a company operating under the cloud of fraud. As a manager, you may face an ethical dilemma in the workplace. The ethical decision is the one you will be proud of 20 years later.

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The Expanded Transaction Analysis Model



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$$A = L + SE$$

Assets		=	Liabilities		+	Stockholders' Equity	
Debit (+)	Credit (-)		Debit (-)	Credit (+)		Debit (-)	Credit (+)
Accounts have debit balances			Accounts have credit balances			Accounts have credit balances	

Contributed Capital		Retained Earnings	
Debit (-)	Credit (+)	Debit (-)	Credit (+)
Investments by owners		Dividends declared	Net income

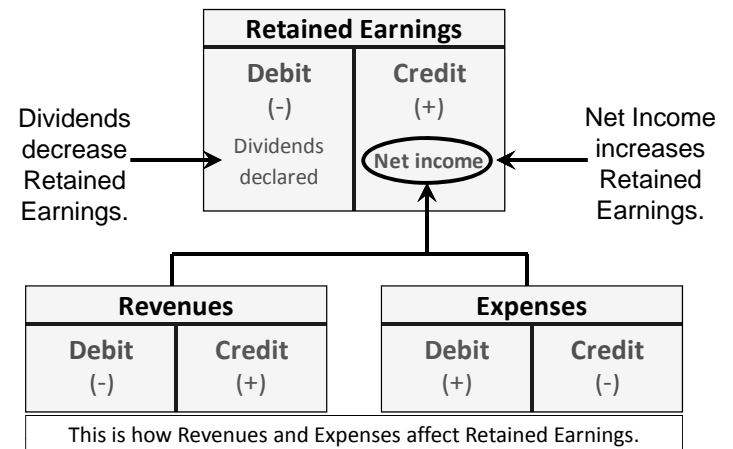
Revenues		Expenses	
Debit (-)	Credit (+)	Debit (+)	Credit (-)

This is how Revenues and Expenses affect Retained Earnings.

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Expanded Transaction Analysis Model



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Analyzing Some of Papa John's Transactions

- (a) Papa John's restaurants sold pizza to customers for \$36,000 cash and sold \$30,000 in supplies to franchised restaurants, receiving \$21,000 cash with the rest due on account.

	Debit	Credit
(a) Cash (+A) [\$36,000 + \$21,000]	57,000	
Accounts Receivable (+A)	9,000	
Restaurant Sales Revenue (+R, +SE)		66,000
Assets	=	Liabilities + Stockholders' Equity
Cash +57,000		Restaurant Sales Revenue (+R) +66,000
Accounts Receivable + 9,000		

Equality checks:

1. Debits \$66,000 equal Credits \$66,000,
2. The accounting equation is in balance.

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Analyzing Some of Papa John's Transactions

- (b) The cost of the dough, sauce, cheese, and other supplies for the restaurant sales in (a) on the previous screen was \$30,000.

	Debit	Credit
(b) Cost of Sales (+E, -SE)	30,000	
Supplies (-A)		30,000
Assets	=	Liabilities + Stockholders' Equity
Supplies -30,000		Cost of Sales (+E) -30,000

Equality checks:

1. Debits \$30,000 equal Credits \$30,000,
2. The accounting equation is in balance.

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Analyzing Some of Papa John's Transactions

- (c) Papa John's sold new franchises for \$400 cash, earning \$100 immediately by performing services for franchisees; the rest will be earned over the next several months.

	Debit	Credit
(c) Cash (+A)	400	
Franchise Fee Revenue (+R, +SE)		100
Unearned Franchise Fees (+L)		300
Assets	=	Liabilities + Stockholders' Equity
Cash +400		Unearned Franchise Fees +300
		Franchise Fee Revenue (+R) +100

for services performed (arrow pointing to 100)

for services NOT yet performed (arrow pointing to 300)

Equality checks:

1. Debits \$400 equal Credits \$400,
2. The accounting equation is in balance.

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Analyzing Some of Papa John's Transactions

- (d) In January, Papa John's paid \$7,000 for utilities, repairs, and fuel for delivery vehicles, all considered general and administrative expenses incurred during the month.

	Debit	Credit
(d) General and Administrative Expenses (+E, -SE)	7,000	
Cash (-A)		7,000
Assets	=	Liabilities + Stockholders' Equity
Cash -7,000		General and Administrative Expenses (+E) -7,000

Equality checks:

1. Debits \$7,000 equal Credits \$7,000,
2. The accounting equation is in balance.

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Papa John's Balance Sheet Accounts

+ Cash (A) -		+ Accounts Receivable (A) -		+ Supplies (A) -	
Bal.	13,000	Bal.	24,000	Bal.	17,000
(a)	5,000	(a)	9,000	(e)	29,000
(c)	400	(i)	12,800	(b)	30,000
(h)	4,000			Bal.	16,000
(j)	15,500				
(k)	1,000				
Bal.	41,900				

+ Prepaid Expenses (A) -		+ Property and Equipment (A) -		- Accounts Payable (L) +	
Bal.	10,000	Bal.	200,000		29,000
(g)	9,000	(h)	1,000	(j)	10,000
Bal.	19,000	Bal.	199,000		20,000
					39,000

- Unearned Franchise Fees (L) +	
	6,000
	300
	6,300

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Papa John's Income Statement Accounts

Beginning balances start at zero.

- Restaurant Sales Revenue (R) +		- Franchise Fee Revenue (R) +		- Gain on Sale of Land (R) +	
	0	Bal.	0	Bal.	0
	66,000	(a)	100	(f)	3,000
	66,000	(i)	2,700		3,000
		Bal.	2,800		

- Investment Income (R) +		+ Cost of Sales (E) -		+ Salaries Expense (E) -	
	0	Bal.	0	Bal.	0
	1,000	(k)	30,000	(f)	14,000
	1,000	Bal.	30,000	Bal.	14,000

+ General and Administrative Expenses (E) -	
Bal.	0
(d)	7,000
Bal.	7,000

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How are Financial Statements Prepared and Analyzed ?

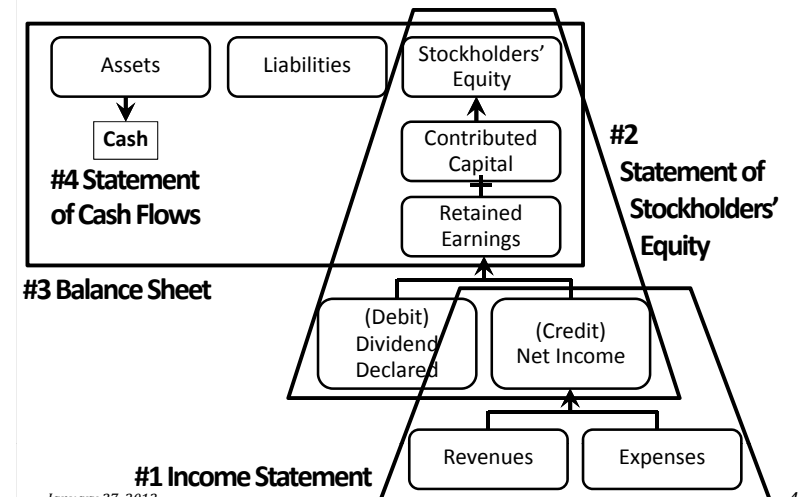


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How Are Financial Statements Prepared and Analyzed ?



#1 Income Statement

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How Are Financial Statements Prepared and Analyzed ?

Statement	Formula
#1 Income Statement	Revenues - Expenses = Net Income
#2 Statement of Stockholders' Equity	Beginning Retained Earnings + Net Income - Dividends Declared = Ending Retained Earnings
	Beginning Contributed Capital + Stock Issuances - Stock Repurchases = Ending Contributed Capital Ending Stockholders' Equity
#3 Balance Sheet	Assets = Liabilities + Stockholders' Equity (includes Cash)
#4 Statement of Cash Flows	Cash provided by (or used in) Operating Activities +/- Cash provided by (or used in) Investing Activities +/- Cash provided by (or used in) Financing Activities Change in Cash + Beginning Cash Ending Cash

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2. Statement of Stockholders' Equity

PAPA JOHN'S INTERNATIONAL, INC.
Consolidated Statement of Stockholders' Equity (before adjustments)
Month Ended January 31, 2009
(dollars in thousands)

	Contributed Capital	Retained Earnings	Total Stockholders' Equity
Beginning balance, December 31, 2008	\$7,000	\$123,000	\$130,000
Additional stock issuances	2,000		2,000
Net income (prior to adjustments)		21,800	21,800
Dividends declared		(3,000)	(3,000)
Ending balance, January 31, 2009	<u>\$9,000</u>	<u>\$141,800</u>	<u>\$150,800</u>

The net income (\$21,800) comes from the Income Statement we just prepared.

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1. Income Statement

PAPA JOHN'S INTERNATIONAL, INC.
Consolidated Statement of Income (before adjustments)
For the Month Ended January 31, 2009
(dollars in thousands)

Operating Revenues	
Restaurant sales revenue	\$66,000
Franchise fee revenue	2,800
Total revenues	68,800
Operating Expenses	
Cost of sales	30,000
Salaries expense	14,000
General and administrative expenses	7,000
Supplies expense	0
Rent expense	0
Insurance expense	0
Utilities expense	0
Depreciation expense	0
Other operating expenses	0
Total expenses	51,000
Operating Income	17,800
Other Items	
Investment income	1,000
Interest expense	(0)
Gain on sale of land	3,000
Income before Income Taxes	21,800
Income tax expense	0
Net Income	<u>\$21,800</u>
Earnings per Share (for the month)	<u>\$ 0.78</u>

Notes:
Normally, accounts with zero balances are not included on formal statements. However, we include them here to indicate that there are numerous expenses and revenues to be determined and recorded in the adjustment process described in Chapter 4.

\$21,800,000 unadjusted net income divided by approximately 28,100,000 shares (from Papa John's annual report)

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3. Balance Sheet

PAPA JOHN'S INTERNATIONAL, INC.
Consolidated Balance Sheet (before adjustments)
January 31, 2009
(dollars in thousands)

ASSETS	
Current Assets	
Cash	\$ 41,900
Accounts receivable	20,200
Supplies	16,000
Prepaid expenses	19,000
Other current assets	13,000
Total current assets	110,100
Investments	2,000
Property and equipment (net)	199,000
Notes receivable	11,000
Intangibles	77,000
Other assets	36,000
Total Assets	<u>\$435,100</u>
LIABILITIES AND STOCKHOLDERS' EQUITY	
Current Liabilities	
Accounts payable	\$ 39,000
Dividends payable	3,000
Accrued expenses payable	71,000
Total current liabilities	113,000
Unearned franchise fees	6,300
Notes payable	138,000
Other long-term liabilities	27,000
Total liabilities	284,300
Stockholders' Equity	
Contributed capital	9,000
Retained earnings	141,800
Total stockholders' equity	150,800
Total liabilities and stockholders' equity	<u>\$435,100</u>

From the Statement of Stockholders' Equity

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4. Statement of Cash Flows

	Effect on Cash Flows
Operating activities	
Cash received: Customers	+
Interest and dividends on investments	+
Cash paid: Suppliers	-
Employees	-
Interest on debt obligations	-
Income taxes	-
Cash Flows from Operating Activities	Total

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4. Statement of Cash Flows

Direct approach to preparing operating cash flows.

	Effect on Cash Flows
Operating activities	
Cash received: Customers	+
Interest and dividends on investments	+
Cash paid: Suppliers	-
Employees	-
Interest on debt obligations	-
Income taxes	-
Cash Flows from Operating Activities	Total
Investing Activities	
Purchase of property, plant or equipment	-
Purchase of other long-term assets	-
Sale of property, plant or equipment	+
Sale of other long-term assets	+
Cash Flows from Investing Activities	Total
Financing Activities	
Issuance of long-term debt	+
Issuance of contributed capital	+
Dividends paid	-
Repurchase of long-term debt	-
Repurchase of contributed capital	-
Cash Flows from Financing Activities	Total
Net increase or (decrease) in cash	
Beginning balance in cash account	
Ending balance in cash account	

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Total Asset Turnover Ratio

$$\text{Total Asset Turnover Ratio} = \frac{\text{Sales (or Operating) Revenues}}{\text{Average Total Assets}}$$

$$(\text{Beginning total assets} + \text{ending total assets}) \div 2$$

Papa John's Total Asset Turnover Ratio for 2008 (dollars in thousands):

$$\frac{\$1,132,000}{(\$402,000 + \$386,000) \div 2} = 2.87$$

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End of Chapter 3



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EXERCISE 3 – 1

TRANSACTION ANALYSIS

Tabor Hill Designers entered into the following transactions during February 2014. Analyze each of the following transactions and prepare the journal entry required to record the related transaction.

(a) On February 3, provide website design services for \$40,000 cash.

Debit and credit the accounts affected					
Feb 3, 14	Cash (+A)		40,000		
	Design Revenue (+R, +SE)				40,000
Ensure the equation still balances and debits = credits					
Assets		=	Liabilities	+	Stockholders' Equity
Cash	+40,000				Revenue +40,000

(b) On February 7, provide website design services to Acme Company, for \$20,000 on account. We expect Acme to pay in the future.

Debit and credit the accounts affected					
Ensure the equation still balances and debits = credits					
Assets		=	Liabilities	+	Stockholders' Equity

(c) On February 14, collect \$18,000 from Acme Company on account.

Debit and credit the accounts affected					
Ensure the equation still balances and debits = credits					
Assets		=	Liabilities	+	Stockholders' Equity

(d) On February 16, sell a \$1,000 gift certificate.

Debit and credit the accounts affected				
Ensure the equation still balances and debits = credits				
Assets	=	Liabilities	+	Stockholders' Equity

(e) On February 21, customer redeems \$1,000 gift certificate for website design services.

Debit and credit the accounts affected				
Ensure the equation still balances and debits = credits				
Assets	=	Liabilities	+	Stockholders' Equity

(f) On February 25, paid employees \$16,000 earned.

Debit and credit the accounts affected				
Ensure the equation still balances and debits = credits				
Assets	=	Liabilities	+	Stockholders' Equity

(g) On February 28, paid \$3,000 insurance for next year in advance.

Debit and credit the accounts affected				
Ensure the equation still balances and debits = credits				
Assets	=	Liabilities	+	Stockholders' Equity

(h) On February 28, paid \$9,000 rent for next six months in advance.

Debit and credit the accounts affected				
Ensure the equation still balances and debits = credits				
Assets	=	Liabilities	+	Stockholders' Equity

(i) On February 28, received \$250 telephone bill for previous month, to be paid next month.

Debit and credit the accounts affected				
Ensure the equation still balances and debits = credits				
Assets	=	Liabilities	+	Stockholders' Equity

(j) On February 28, received \$500 utility bill for this month, to be paid immediately.

Debit and credit the accounts affected				
Ensure the equation still balances and debits = credits				
Assets	=	Liabilities	+	Stockholders' Equity

EXERCISE 3 – 2

POSTING TO T-ACCOUNTS

The following T-accounts set forth the ending balances of the accounts of Tabor Hill Designers as of January 31, 2014. Refer to Exercise 3-1. Post each of the February 2014 journal entries to the T-accounts.

Assets				Liabilities				Stockholders' Equity			
+ Cash –				- Accounts Payable +				+ Contributed Capital –			
BegBal	3,100				0	BegBal		10,000	BegBal		
+ Accounts Receivable –				- Notes Payable +				- Retained Earnings +			
BegBal	0				15,000	BegBal		0	BegBal		
+ Supplies –				+ Unearned Revenue –				- Design Revenue +			
BegBal	900				0	BegBal		0	BegBal		
+ Prepaid Expenses –				+ Wage Expense –				+ Utilities Expense –			
BegBal	0						BegBal	0			
+ Property, Plant & Equipment –				+ Telephone Expense –				+ Telephone Expense –			
BegBal	21,000						BegBal	0			

EXERCISE 3 – 4

TOTAL ASSET TURNOVER RATIO

Refer to the financial statements from Exercise 3-3 and calculate the total asset turnover ratio of Tabor Hill Designers as of December 31, 2014. Then, indicate what this ratio measures and how you would interpret the results.

Calculation:

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What it measures and how to interpret:

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