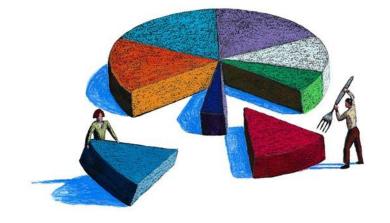
# FINANCIAL RATIO ANALYSIS AND BUDGET PREPARATION

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# **OVERVIEW**

# \* Level 2 \* REQUIRED

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C)
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Part I – An overall review of HKTV Group's financial performance - 25'

"Ratios not covered in Level 1"

"Apply Average Figures"

#### D)

Part II – Formulate a business plan for HKTV ...

- (a) Trend Analysis 10'
- (b)
- (c) Business plan 25'
  - Marketing expense budget

#### Part 1:

# FINANCIAL RATIOS AND TREND ANALYSIS

# Recap - Financial Ratio Analysis

Company website: <a href="http://www.hktv.com.hk/eng/global/home.htm">http://www.hktv.com.hk/eng/global/home.htm</a>



Annual Report



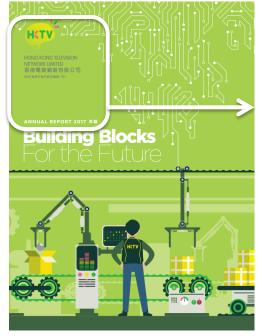
Financial Statements

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#### Financial Information

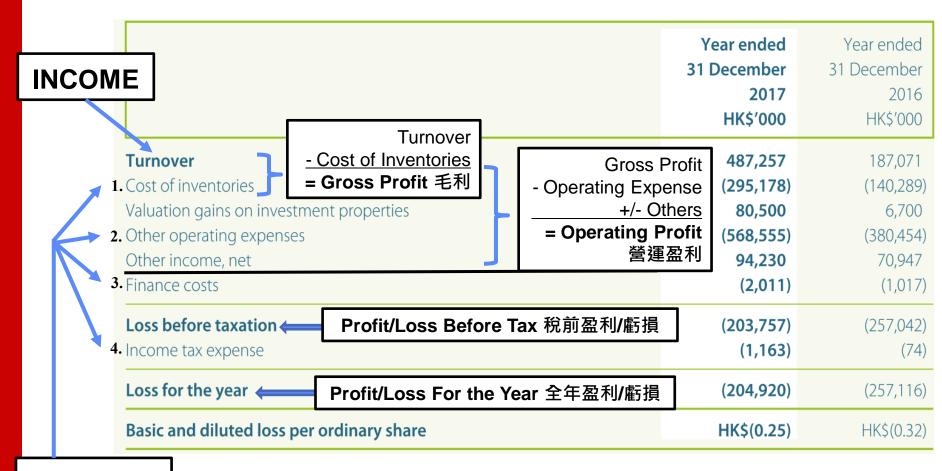
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HONG KONG TELEVISION
NETWORK LIMITED
香港電視網絡有限公司
SEHK香港交易所股份編號: 1137

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# Income Statement 綜合損益表 (Profit and Loss)



**EXPENSE** 

# Statement of Financial Position 綜合財務狀況表

(Balance Sheet 綜合資產負債表)

#### Assets

#### 資產

Economic resources



#### Non-Current

#### 非流動資產

Property, plant & equipment 房產, 廠房及機器

#### **Current**

流動資產

• Inventory 存貨

#### Liabilities

#### 負債

Economic Obligations



#### Current

#### 流動負債

Accounts Payable

應付賬款

Non-Current 非流動負債

#### Equity權益

Shareholder Contributions -

Share Capital 股本 Reserves 保留盈利 CAPITAL AND RESERVES

Share capital

**TOTAL EQUITY** 

		31 December 2017	31 December 201
	Note	HK\$'000	HK\$'00
Non-current assets			
roperty, plant and equipment	12	1,152,387	917,04
ntangible assets	13	99,828	112,24
Goodwill	27	897	
ong term receivables, deposits and prepayments	16	11,912	8,2
Other financial assets	16	675,161	828,0
		1,940,185	1,865,5
urrent assets			
Other receivables, deposits and prepayments	17	63,276	39,2
ax recoverable		1,007	· ,
nventories	15	26,912	17,8
Other current financial assets	16	201,004	355,4
Pledged bank deposit	29	3,905	
Cash at bank and in hand	18	100,199	44,3
		396,303	456,8
Current liabilities			
Accounts payable	19	92,951	22,7
Other payables and accrued charges	19	154,840	115,9
Deposits received		4,286	1,9
Bank loans	20	219,623	184,1
		471,700	324,7
Net current (liabilities)/assets		(75,397)	132,1
Total assets less current liabilities		1,864,788	1,997,6
Non-current liabilities			
Deferred tax liabilities	22	2,156	ç
		2,156	Ç
NET ASSETS		1,862,632	1,996,6

21(b)

1,268,914

1,862,632

593,718

1,268,914

1.996.663

## Ratio Analysis - Illustration

#### **ABM** Limited

#### Consolidated Income Statement 綜合損益表

#### For the Year Ended December 31

	 2017	 2016
Turnover 銷貨	\$ 450,000	\$ 300,000
Cost of sales 銷貨成本	380,000	250,000
Gross profit 毛利	70,000	50,000
Selling and distribution 分銷費用	7,000	6,000
Administrative expenses 行政開支	30,000	20,000
Operating Profit 營運盈利	33,000	24,000
Other expenses and losses:		
Finance costs 財務成本	1,500	1,500
Profit before tax 稅前盈利	31,500	22,500
Income tax expense 稅金	 5,000	 3,000
Profit for the year 全年盈利	\$ 26,500	\$ 19,500

#### **Additional information** - Share market price:

- as at 31 December 2016: \$ 6.5;
- as at 31 December 2017: \$ 5.

# Ratio Analysis - Illustration

#### **ABM** Limited

Consolidated Bala	ance Sheet	綜合資產負債表
-------------------	------------	---------

December :	21	,
------------	----	---

Decembe	er 31		
ASSETS 資產	2017	2016	2015
NON-CURRENT ASSETS 非流動資產			
Property, plant and equipment (net)			
房產,廠房及設備 (淨值)	\$ 39,000	\$ 28,500	\$ 20,000
Total non-current assets	39,000	28,500	20,000
CURRENT ASSETS 流動資產			
Inventory 存貨	\$ 50,000	\$ 30,000	\$ 20,000
Trade receivable (net) 應收帳款 (淨值)	100,000	85,000	81,000
Cash 現金	1,000	1,000	4,000
Total current assets	151,000	116,000	105,000
TOTAL ASSETS	\$190,000	\$144,500	\$125,000
	<u></u>		
Average of Average of			

**2017** 

**2016** 

# Ratio Analysis - Illustration

	_			
LIABILITIES AND EQUITY 負債及權益		2017	2016	2015
SHAREHOLDERS' EQUITY 股東權益				
Share capital 股本 (\$2 par 面值)	\$	22,000	\$ 22,000	\$ 20,000
Other reserves 其他儲備		6,000	4,500	3,000
Retained earnings 保留利潤		40,000	 15,000	 20,000
Total shareholders' fund		68,000	 41,500	 43,000
NON-CURRENT LIABILITIES 非流動負債	 責			
Bonds payable 應付債券	\$	12,000	\$ 18,000	\$ 10,000
Total non-current liabilities		12,000	18,000	 10,000
CURRENT LIANBILITIES 流動負債				
Trade payable 應付帳款	\$	80,000	\$ 70,000	\$ 60,000
Income taxes payable 利得稅應付款項		30,000	15,000	12,000
Total current liabilities		110,000	85,000	72,000
Total liabilities		122,000	103,000	82,000
Total LIABILITIES AND EQUITY	\$	190,000	\$ 144,500	\$ 125,000

# Ratio Analysis

Ratio analysis expresses the relationship among selected items of financial statement data.

#### **Five Financial Ratio Classifications**



1. Profitability Ratios 盈利能力	Remark
(i) Mark up 加成	X
(ii) Gross profit 毛利率	Level 1
(iii) Net profit 凈利率	Level 1
(iv) Return on capital employed (ROCE) 運用資金報酬率	Level 1
(v) Return on assets (ROA) 資產回報率	NEW

3. Liquidity Ratios 變現能力	Remark
(i) Current ratio 流動比率	Level 1
(ii) Acid-test/Quick ratio 速動比率	Level 1
(iii) Cash ratio 現金比率	NEW

4. Solvency Ratios 償債能力	Remark
(i) Gearing ratio 槓桿比率	Level 1
(ii) Debt to equity ratio 債務股本比率	NEW
(iii) Time interest earned 利息保障倍數	NEW

5. Investment Appraisal Ratios 投資評估	Remark
(i) Earning per Share (EPS) 每股盈利	Level 1
(ii) Price earning ratio (P/E ratio) 市盈率	NEW

#### (For Level 2 participants)

2. Management Efficiency Ratios 管理效率	Remark
(i) Inventory turnover 存貨周轉	X
(ii) Inventory turnover period 存貨周轉期限	Take Average
(iii) Trade receivables turnover 應收貨款周轉	X
(iv) Trade receivables collection period 賒銷期限	X
(v) Trade payables turnover 應付貨款周轉	Х
(vi) Trade payables repayment period 賒購期限	Take Average
(vii) Total assets turnover 總資產周轉	Take Average

	2017 (%)	2016 (%)
Gross Profit Margin 毛利率	\$70,000 \$450,000	\$50,000 \$300,000
七个小子	\$450,000	\$300,000

Measures the percentage of each dollar of sales that results in gross profit.

The company has less amount to cover operating and non-operating expenses than last year.

	2017 (%)	2016 (%)
Net Profit Margin	\$31,500 = 7.00%	\$22,500 = <b>7.50</b> %
净利率	\$450,000	\$300,000

Measures the percentage of each dollar of sales that results in net income.

Although the company achieved a lower gross profit margin in 2017, its net profit margin was in line with that of 2016. This meant that the company was more efficient in minimizing its operating expenses in 2017.

Return on Capital Employed = 運用資金報酬率

Profit before interest and tax 利息及稅前淨利 (Operating Profit營運盈利)

Capital Employed 運用資金 (Equity 股本 + Non-current Liabilities 非流動負債)

	2017 (%)	2016 (%)
ROCE	\$33,000 = <b>41.25</b> %	
運用資金報酬率	\$68,000 + \$12,000	\$41,500 + \$18,000

Rate of return based on the book value of long term capital investment made in the business.

Much more income is earned in 2017 base on the book value of long term capital investment made in the business.

Return on Average Assets (ROA) 資產回報 Profit after tax 稅後淨利

Average total assets 平均總資產

ROA measures the rate of return based on the book value of assets.

The ROA figure gives investors an idea of how effectively the company is converting (轉化) the resources/asset (資產) it has to invest into net income.

Return on Average Assets (ROA) 資產回報 Profit after tax 稅後淨利

Average total assets 平均總資產

	<u>2017</u>	<u>2016</u>
Return on Average Asset	1E 0/10/	14 470/
(ROA) 資產回報	15.84%	14.47%

Higher the ROA number means the company is earning more money on less investment.

Measures the average number of days the company holds its inventory before selling it.

	2017	2016
Average Inventory Turnover Period 存貨周轉期限	38.42 days	36.50 days

The average selling time of 38.42 days in 2017 is longer as compared with that in 2016.

**Average** Trade **Payables Repayment** Period 賒購期限

**Average** Trade Payables 平均應付貨款

**x** 365 days

Credit Purchases 賒購

Cost of Goods Sold 銷貨成本
- Opening Inventories 期初存貨
+ Closing Inventories 期末存貨

2016: 
$$\frac{(\$60,000 + \$70,000) \div 2}{(\$250,000 - \$20,000 + \$30,000)} \times 365 \text{ days} = 91.25 \text{ days}$$

Indicates the average length of time in days within which a company must pay for its credit purchases (赊購).

This means that payables are settled on average every 91.25 days.

2017: 
$$\frac{(\$70,000 + \$80,000) \div 2}{(\$380,000 - \$30,000 + \$50,000)} \times 365 \text{ days} = 68.44 \text{ days}$$

	<u>2017</u>	<u>2016</u>
Trade Payables Repayment Period	<b>68.44 days</b>	01 <b>25</b> days
<b>賒購期限</b>	00.44 days	91.25 days

The company settles its payables for credit purchases (賒購) on average every 68.44 days in 2017, which means the company have to settle the payables 22.81 days earlier on average.

	2017	<u>2016</u>
Current Ratio	\$151,000 = 1.37 : 1	\$116,000 = 1.36:1
流動比率	\$110,000	\$85,000

An exceptionally high current ratio indicates good liquidity, it may be a symptom of sufficient working capital (營運資金).

The company does not have short term debt-paying problem.

Current Assets 流動資產 – Inventories 存貨

Quick Ratio

速動比率

Current Liabilities 流動負債

	2017	<u>2016</u>
Current Ratio 速動比率	(\$151,000 - \$50,000 - \$0) \$110,000 = 0.92 : 1	(\$116,000 - \$30,000 - \$0) \$85,000 = 1.01 : 1

The acid-test/quick ratio measures immediate liquidity.

The company may have immediate debt-paying liquidity problem.

It is the most conservative of all the liquidity measurements.

2017: 
$$\frac{\$1,000}{\$110,000} = 0.01:1$$

	2017	2016
Cash Ratio 現金比率	0.01:1	0.01:1

There is insufficient cash on hand to pay off short-term debt in both 2016 and 2017.

	<u>2017</u>	2016
Gearing Ratio	\$12,000 + \$0	\$18,000 + \$0
槓桿比率	\$12,000 + \$68,000	\$18,000 + \$41,500
	= 15.00%	= 30.25%

HIGH in this ratio indicates the company may have difficulties in repaying debts from its equity funds, and obtain further loans from Banks or other lenders.

Decline in Gearing ratio indicates the company is less debt-financing.

Debt to equity ratio (債務股本比率) indicates how much debt a company is using to finance its assets relative to the amount of value represented in shareholders' equity.

Debt to equity ratio (債務股本比率) of 100% would mean that investors and creditors have an equal stake in the business assets.

	2017	2016
Debt to equity Ratio債務股本比率	179.41%	248.19%

Decline in Debt to equity ratio indicates the company is less debtfinancing in 2017.

Time Interest
Earned 利息保障倍 =

Profit Before Interest and Tax 息前及稅前淨利

Interest Expense 利息費用

Time interest earned (利息保障倍數) provides an indication of the company's ability to meet interest payments as they come due.

Time Interest Profit Before Interest and Tax 息前及稅前淨利
Earned 利息保障倍 Interest Expense 利息費用

	<u>2017</u>	<u>2016</u>
Time Interest Earned 利息保障倍數	22 times	16 times

The company's interest expense in 2017 is well covered at 22 times, compared with that in 2016 of 16 times.

#### Investment Appraisal 投資評估

Earning per Share 每股盈利 Net Profit after tax 稅後淨利
- Preferences Dividend 優先股息

No. of Ordinary Shares issued 已發行的普通股數量

	2017	<u>2016</u>
Earnings Per Share	\$26,500 - \$0	\$19,500 - \$0
每股盈利	\$22,000/\$2	\$22,000/\$2
	= \$2.41/share	= \$1.77/share

Earnings Per Share (每股盈利) measures the amount of money each shareholder would receive, if all profits were distributed at the end of the year.

EPS increased in 2017. The higher the EPS, the higher the potential return on holding the shares of the company.

# Investment Appraisal 投資評估

2016: 
$$\frac{$6.5}{$1.77} = 3.67 \text{ times}$$

Price earnings ratio (P/E 市盈率) is an indicator of investors' confidence in the prospects of a company.

#### Investment Appraisal 投資評估

2017: 
$$\frac{$5}{$2.41} = 2.07 \text{ times}$$

	2017	<u>2016</u>
P/E Ratio 市盈率	<b>2.07 times</b>	<b>3.67 times</b>

P/E ratio (市盈率) decreased from 2016 to 2017.

This indicates that investors have a lower degree of confidence in the company's prospects.

# Importance of Relative Financial Ratios

- In order to make sense of a ratio, we must compare it with some appropriate benchmarks (合適基準)
- Examine a firm's performance relative to:
  - Aggregate economy (經濟情況) / Its industry (行業) / Its major competitors (競爭對手) within the industry
  - Its own past performance (過往表現)



# **Trend Analysis**

#### **Key Equation**

Percent change

= (Current year amount – Base year amount) ÷ Base year amount

#### Part 2:

# **BUDGET PREPARATION**

#### **Budget Preparation**

A budget is a detailed quantitative plan for acquiring and using financial and other resources over a specified forthcoming time period.



- 1. The act of preparing a budget is called budgeting.
- 2. The use of budgets to control an organization's activities is known as budgetary control.

# Marketing Expense Budget 營銷預算

An estimated projection of costs required to promote a business' products or services.

- Media and Production 媒體及製作: TV, newspaper, radio, direct mail
- Merchandising 採購: signage, displays
- Selling costs 分銷費用: sales incentives
- Research expenses 研究開支: market research

# Sample Marketing Expenses Budget 營銷預算節例

#### **Objectives** of this marketing budget may include:

- Increase average daily orders (日平均訂單) by ??% over the previous year
- Increase average traction value (平均成交額) by ??% over the previous year
- Increase the current customer purchase rate (顧客採購次數) from ??
   to ?? purchases per month
- Increase the customer base (客戶群體) by ??% above the current level of ?? active accounts
- ... ...

		<u>\$'000</u>	% of Budget	<u>Total</u>
Media 媒體	Television 電視 (2 channels)	3,500	35.00%	\$5,800,000
	Newspapers 報紙 (1/4 page per issue)	1,100	,100 11.00% (58.0	
	Direct mail 郵遞直銷 (10,000 copies by post)	1,200	12.00%	
Production 製作	Television 電視 1,000 (10*2'30" advertisements)		10.00%	\$2,180,000 (21.80%)
	Newspapers 報紙 (type and photos)	180	1.80%	
	Direct mail 郵遞直銷 (type and printing)	1,000	10.00%	
Merchandising 採購	## 5% off Coupon 優惠券 1,200 12.00%		12.00%	\$1,500,000
	Internet media 網上媒體	50	0.50%	(15.00%)
	Store signage 展示牌 (20 signs per store)	250	2.50%	
Selling Costs 分銷費用	Sales incentive programme 銷售獎勵方案計劃	200	2.00%	\$200,000 (2.00%)
Research Expenses 研究開支	Market research 市場研究	320	3.20%	\$320,000 (320%)

# Sample Marketing Expenses Budget 營銷預算範例

Total marketing estimate 總營銷預算	\$10,000,000		
Total sales estimate 總銷售預算	\$240,000,000		

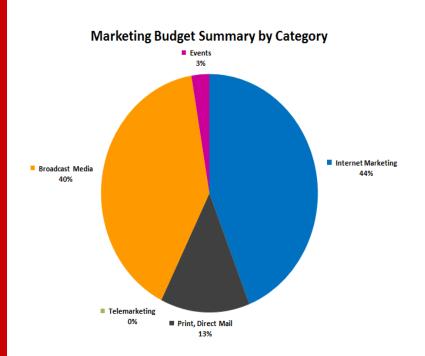
	% of Budget
Marketing budget as a percentage of <u>Sales</u> budget 營銷預算與銷售預算之百份比	4.17%

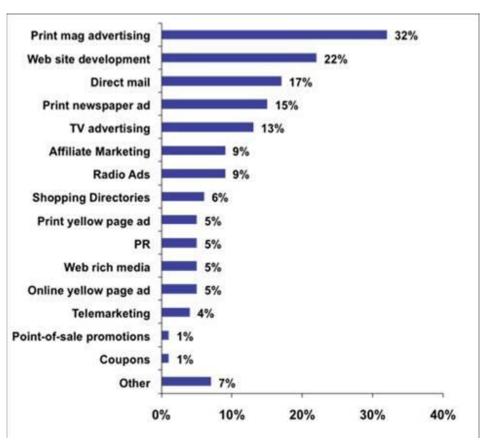
# Sample Marketing Expenses Budget 營銷預算範例

	2018			2019					
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Total
Media媒體	\$ '000		\$ '000	\$ '000	\$ '000	\$ '000	\$ '000	\$ '000	\$ '000
Television 電視 (2 channels)									3,500
Newspapers 報紙 (1/4 page per issue)									1,100
Direct mail 郵遞直銷 (10,000 copies by post)									1,200
									5,800
Production 製作									
Television 電視 (10*2'30" advertisements)									1,000
Newspapers 報紙 (type and photos)									180
Direct mail 郵遞直銷 (type and printing)									1,000
									2,180
Merchandising 採購									
5% off Coupon 優惠券									1,200
Internet media網上媒體									50
Store signage 展示牌 (20 signs per store)									250
									1,500
Selling costs 分銷費用									
Sales incentive programme 銷售獎勵方案計劃									200
									200
Research Expenses 研究開支									
Market research 市場研究									320
									320
Total marketing estimate 總營銷預算									10,000

## Sample Marketing Expenses Budget

# 營銷預算範例





# THANKS FOR LISTENING

