Unit I Merchandising for a Profit

- Section I: Defining the basic profit factors
- Studying the calculation of profit is meritorious for a variety of reasons:
  - Private and publicly held companies are in business to make profit
  - Profit sharing plans enable employees to share in these successes
  - The United States government started taxing individuals in 1913, and started requiring stringent accountability for corporate accounting in 1929
  - The major responsibility of a merchant in a retailing organization is to attain a profit

Unit I, Section I: Defining the basic profit factors

- Merchants use the p & L statement for a variety of tasks:
  - Exchange data to compare stores within the division to determine relative strengths and weaknesses
  - Ascertain the direction of the business, up or down
  - Provide date for analysis to enable management direction
  - Improve profit margin

Unit I, Section I: Defining the basic profit factors

- The P & L is composed of three basic elements:
  - Operating income or sales volume
  - Cost of good sold
  - Expenses
Operating income or sales volume theory

- Gross sales are the entire amount received for goods sold during a given period of time.
- They are decreased by customer returns and allowance, CR & A, the amount a customer returns to a store for credit, or the amount given as a price reduction after the sale.
- The combination of gross sales less CR & A equals net sales, or the amount in sales that actually stay sold.

N.B. that net sales is the significant figure, as profits are calculated from this amount.
However, gross sales and CR & A yield significant information about selling patterns and individual associates selling habits.

Cost of good sold theory

- Is the cost of the merchandise sold during the p & l period being reviewed, a simple concept, but relatively complex calculation.
- The starting point for this is the billed cost, a self explanatory idea.
Cost of good sold theory

- Adjustments to the billed cost include:
  - Transportation costs, where vendors charge the retailer for transport to the retailers designated location, an addition
  - Alteration and workroom costs, where piece work, or finishing to prep merchandise for the selling floor, an addition
  - Cash discounts, which vendors grant for payment of an invoice within a specified time period, a deduction

Operating Expenses theory

- The costs of doing business, independent of the cost of the goods sold
- They are sub categorized in 2:
  - Direct expenses, which would cease to exist if the department was discontinued; e.g. buying salaries, salespeople, departmental advertising
  - Indirect expenses, which are incurred regardless of a department’s existence and generally prorated to departments based on sales volume, square feet of some other metric; e.g. management salaries, loss prevention, human resources, cash office, housekeeping, receiving

Operating Income or Sales example

Solution:
30 dolls @ $15 each: $450
25 dolls @ $25 each: 625
5 dolls @ $30 each: 150
Gross sales: $1,225

- On Monday, an accessories department sold 30 dolls priced at $15 each, 25 priced at $25 each and 5 priced at $30 each. What were gross sales for the day?
Customer returns and allowances e.g.

Solution:
1 velour jacket @ $98: $ 98
2 wool skirts @ $75 each: 150
2 velvet tops @ $55 each: 110
CR & A for Saturday: $ 358
+ total wkly customer returns: 400
+ total wkly customer allowances: 57
CR & A for the week: $ 815

• On Saturday, the junior department refunded $98 for 1 velour jacket, $75 each for 2 wool skirts and $55 each for 2 velvet tops. Other returns for the week amounted to $400, and the weekly total of allowance given was $57. What was the dollar amount of customer returns and allowances?

Cost of merchandise sold example

Solution:
Billed cost $ 80,000
- discount (7.5% x $80,000) $ 6,000
= billed cost less discount $ 74,000
+ workroom costs + 500
= billed less discount + w/r $ 74,500
+ inward freight + 2,000
= total cost of merchandise $ 76,500

• An active wear dept. had billed cost of merchandise amounting to $80,000; transport costs of $2,000; earned cash discount of 7.5% and workroom cost of $500. Total cost of merchandise?

Operating Expenses Example

Direct expenses:
Selling salaries $ 24,000
Advertising expenses 6,000
Buying salaries 12,000
Other direct expenses 18,000
Indirect expenses (10% x $300,000) 30,000
Total $ operating expenses $ 90,000
Operating expense % $90,000 / $300,000 = 30%

A kid’s department has net sales of $300,000 and indirect expenses are 10% of net sales. Direct expenses are listed above; find total operating expenses in $ and %.
Operating Expenses

- Controllable and non-controllable expenses;
  - Most direct expenses are considered "controllable", which to an extent they are.
  - Note that although selling floor salary is direct, it is not completely controllable, i.e., to eliminate the expense you could eliminate all sales force for that department, ridding all sales force expense, but also effectively ending all sales activity.

Some exceptions to the direct expense is a controllable expense theory are:
- Store rent is directly related to the store's P & L, but not controlled by the store manager
- Utilities, which are a direct expense to the store, but can be indirect expenses to a department
  - Utility rates are not controllable, but usage is.

Contribution Operating Statement

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales (operating income)</td>
<td>900,000</td>
<td>100.0%</td>
</tr>
<tr>
<td>less cost of merchandise sold</td>
<td>266,000</td>
<td>53.2%</td>
</tr>
<tr>
<td>equal Gross margin</td>
<td>234,000</td>
<td>46.8%</td>
</tr>
<tr>
<td>less direct expenses</td>
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<td></td>
</tr>
<tr>
<td>payroll</td>
<td>73000</td>
<td></td>
</tr>
<tr>
<td>advertising</td>
<td>13000</td>
<td></td>
</tr>
<tr>
<td>supplies</td>
<td>7000</td>
<td></td>
</tr>
<tr>
<td>travel</td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>12000</td>
<td></td>
</tr>
<tr>
<td>Contribution</td>
<td>110000</td>
<td>22.0%</td>
</tr>
<tr>
<td>less indirect expenses</td>
<td>106500</td>
<td>21.3%</td>
</tr>
<tr>
<td>Operating profit</td>
<td>17,500</td>
<td>3.5%</td>
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Unit I, Section I: relationship among basic profit factors

<table>
<thead>
<tr>
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<th>$</th>
<th>%</th>
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<tbody>
<tr>
<td>Net sales (operating income)</td>
<td>10,000</td>
<td>100%</td>
</tr>
<tr>
<td>less cost of merchandise sold</td>
<td>5,500</td>
<td>55%</td>
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<tr>
<td>less operating expenses</td>
<td>4,300</td>
<td>43%</td>
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<tr>
<td>equals Profit</td>
<td>200</td>
<td>2%</td>
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Unit I, Section II P & L Statements

- Keeping accurate records of sales, cost of goods sold and expenses is required to calculate profit
- P & L’s are over a given time period, usually on an annual basis, with seasonal and potentially quarterly reporting
- A balance sheet is a “snapshot” of a company’s assets, liabilities and net worth

Unit I, Section II P & L Statements

- The difference between net sales and cost of goods sold is **gross margin**
- This figure must be large enough to cover operating expenses **and** generate a profit
- It is referred to as gross profit since it augers how final results will come out
- It is calculated for a given period of time
Mathematics for Retail Buying

Unit I, Section II P & L Statements

- **Solution:**
  
  - Net sales: $300,000
  - CGS: $180,000
  - Gross margin: $120,000
  
  - Gross margin = Net sales – CGS
  
  A department has net sales of $300,000, CGS of $180,000. Determine dollar gross margin.

- **Solution:**
  
  - Gross margin: $120,000
  - Expenses: $135,000
  - Net profit/loss: $(15,000)
  
  - Net profit = Gross margin – Expenses
  
  A department has gross margin of $120,000 and operating expenses of $135,000. Determine net profit or loss.

- **5 major components are:**
  
  - Net sales
  - CGS
  - Gross margin
  - Operating expenses
  - Profit/loss
### Unit I, Section II P & L Statements; basic P & L

<table>
<thead>
<tr>
<th>Description</th>
<th>$</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>160,000</td>
<td>100%</td>
</tr>
<tr>
<td>less CGS</td>
<td>88,000</td>
<td>55%</td>
</tr>
<tr>
<td>equals Gross margin</td>
<td>72,000</td>
<td>45%</td>
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<tr>
<td>less OE</td>
<td>64,000</td>
<td>40%</td>
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<tr>
<td>equals Net profit/loss</td>
<td>8,000</td>
<td>5%</td>
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### Unit I, Section II P & L Statements; final P & L

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Gross sales</td>
<td>$450,000</td>
<td>100.0%</td>
</tr>
<tr>
<td>CR &amp; A</td>
<td>$25,000</td>
<td></td>
</tr>
<tr>
<td>Net sales</td>
<td>$425,000</td>
<td>100.0%</td>
</tr>
<tr>
<td>CMS</td>
<td>$52,000</td>
<td></td>
</tr>
<tr>
<td>OI</td>
<td>$100,000</td>
<td></td>
</tr>
</tbody>
</table>
| Net purchases | $258,000 | |+
| transport   | $2,000  |            |
| Total CGS   | $260,000 | 55.3% |
| Total Mdse handled | $312,000 | |
| EI (closing inventory) | $65,000 | |
| Gross CGS   | $247,000 |            |
| Cash discount | $13,000 | |
| Net CGS     | $234,000 |            |
| Alt/w/r     | $1,000  |            |
| Total CGS   | $235,000 | 55.3% |
| GM          | $190,000 | 44.7% |
| OE          | $101,250 |            |
| direct      | $67,500  |            |
| indirect    | $33,750  |            |
| total exp   | $168,750 | 39.7% |
| NI/NL       | $21,250  | 5.0%       |