
UNIT 3 MARGINS AND PROFITABILITY

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Relationship Among Basic Factors
- 3.3 Gross Margin
- 3.4 Operating Profit
- 3.5 Basic Profit Factors
 - 3.5.1 Net Sales
 - 3.5.2 Cost of Merchandise Sold
 - 3.5.3 Operating Expenses
 - 3.5.4 Direct Expenses
 - 3.5.5 Indirect Expenses
 - 3.5.6 Contribution
- 3.6 Let Us Sum Up
- 3.7 Key Words
- 3.8 Answers to Check Your Progress
- 3.9 Terminal Questions

3.0 OBJECTIVES

After studying this unit, you should be able to:

- explain the relationship among basic factors;
- discuss the concept of gross margin;
- explain the concept of operating profit;
- describe the basic profit factors, such as net sales, cost of merchandise sold, operating expenses, direct and indirect expenses, contribution, etc.

3.1 INTRODUCTION

Organization which is involved in commercial activity, has to generate reasonable profits in order to survive the ups and downs of the business cycle. Profitability of the business confirms that it is on the right track and has all the potential to grow its business to the next level. When the business is making profit it ensures that it can commit itself to employee satisfaction and growth, which in turn will help the business to achieve consumer satisfaction. This leads to business growth and profitability. A profitable business means all the stakeholders and more particularly the investors are receiving reasonably good returns on their investments. Thus it makes sense even for retailers to be worried about their profitability. Retail profitability, like in any business, depends on the management skills, type of retail business and the strategic moves deployed by the management. In this unit, you will learn about the basic factors that determine the profitability of the retail business. You will further learn the concepts of

gross margin and operating profit. You will be familiarised with various operating expenses and the difference between the direct expenses and indirect expenses.

3.2 RELATIONSHIP AMONG BASIC FACTORS

It is important for a business person to understand the relationship among the basic factors that determines the profitability of any business. The starting point for any business to be on the track of profitable growth is to generate operating profit. The main elements of the operating profit are:

- 1) sales,
- 2) cost of merchandise sold, and
- 3) operating expenses.

The following example 3.1 will give better idea about the relationship among these three important elements.

Example 3.1: Relationship among the Basic Factors

Net sales Value:	Rs 100000
Less Cost of merchandise sold:	Rs 50000
Gross Margin:	Rs 50000
Less Operating Expenses	Rs 30000
Operating Profit	Rs 20000

Thus, the operating profit in percentage term = $\frac{20000 \times 100}{1,00,000} = 20\%$

Let us put the relationships among the three important factors in mathematical formulae as explained below:

Net Sales Value – Cost of Merchandise Sold = Gross Margin (1)

Gross Margin – Operating Expenses = Profit (2)

From the above working, a question may come to your mind that does the gross margin always has to be positive, and what happens if it is negative?

In normal circumstances, if the retailer understands his/her business well than circumstances like negative gross margin should not arise. But, yes there could be situations when the retailer is new to the business or the buying/merchandising team of the retail business is inexperienced in a particular category of products. Hence, might have bought the products at higher prices than the true market rate or have bought incorrectly either in terms of quantity or quality or preferences of its regular retail customers. There could be situation whereby the merchandising team may have to dispose of the bought items at a price lower than the buying price through discounts or markdowns just to get out of the situation, so that they can minimise the business loss. When the gross margin is in negative the situation becomes further very grave as the retailer is not able to cover the other operational expenses of the business and may have to declare his business as total loss making and have to apply for bankruptcy proceedings. Thus, situation like this one are rare, and therefore calls for careful planning and strategizing on the part of the retailer for working on any new categories or business ventures.

There could also be a situation whereby the gross margin earned may not be enough to cover the operating expenses. Such a situation will lead into negative profitability

for the business and may create temporary cash-flow problems. The reasons again for these could be bad planning or execution on the part of retail merchandising team or due to sudden downturn in business or economic environment, as it happened during the global recessionary trends that took place during 2008 – 09. There could be other reasons whereby the operating expenses go out of budget or track. This may be due to new regulations from Government which could increase the staff salaries/ duty structure / new levies on sales or taxes - as during the 2011 budget government introduced excise duty on sale of branded apparels. Thus manufacturers and retailers had to take on extra burden of excise levies in order to maintain their existing product price lines. Sometimes due to Government restrictions on certain types of goods/ material used for sale of a given category of products. For example, Government restrictions on usage of plastic bags or avoiding toxic material in packaging of kids products or restriction on consumption of certain materials – like alcohol or cigarettes. All such issues may affect the sale of the concerned categories thereby affecting the gross margin of the category which may not be able to meet the operating expenses fully, for a given year or season till the business make adjustments to its working. Situations like gross margin being lower than operating expenses are temporary and can be overcome by the merchandising and the buying team if they take certain care in the pricing of the products at the time of finalising mark-ups or at the time of buying of merchandise and finalising the promotion of the product category.

3.3 GROSS MARGIN

You have already learnt that the Gross Margin is the difference between the net sales value and the cost of merchandise sold. Gross margin is the surplus amount available to the retailer to cover up its operating expenses as well as the operating profit. Gross margin is one of the important factor in the final determination of profits for the business operation. Hence, both the merchandising manager and the buyer maintain close watch on this factor for each category of the merchandise by calculating the gross margin earned per square feet of the given category. The merchandising and buying team decides on the basis of this single factor if their working is in the correct direction, and may decide to take suitable steps if necessary. Thus, Gross margin can be defined as follows - *It is the balance amount available from sales income after deducting the cost of merchandise sold, which can take care of other operational expenses as well as the profit.*

Gross Margin = Operational Expenses + Profit

Therefore, Gross Margin percentage can be derived by taking the sum of expenses plus profit as explained in Example 3.2 here below:

Example 3.2 Deriving Gross Margin Percentage

A retail business which is having an annual sales income of Rs 100000, with operating expenses of Rs 30000 (i.e. 30 percent of the sales income) and profit before tax of Rs 10000, which is 10% of sales income, then the gross margin per cent value will be calculated as follows:

$$\text{Percentage of operating expenses} = \frac{30,000 \times 100}{1,00,000} = 30\%$$

$$\text{Percentage of operating profit} = \frac{10,000 \times 100}{1,00,000} = 10\%$$

The calculation of gross margin is worked out as follows:

Operating Expenses	=	Rs 30000	(30%)
Plus Profit before tax	=	Rs 10000	(10%)
Gross margin	=	Rs 40000	(40%)

You can also calculate gross margin percentage directly by using the following working:

$$\text{Gross Margin percentage} = \frac{40,000 \times 100}{1,00,000} = 40\%$$

From the basic formula for gross margin we can derive other values as explained in the working below:

$$\text{Gross Margin} = \text{Sales Income} - \text{Cost of Merchandise Sold}$$

$$\text{Since, Gross Margin} = \text{Operating expenses} + \text{Profit}$$

$$\text{Therefore, Operating Expenses} + \text{Profit} = \text{Sales Income} - \text{Cost of Merchandise Sold} \quad \text{..... (3)}$$

$$\text{Thus, Sales Income} = \text{Cost of Merchandise Sold} + \text{Operating Expenses} + \text{Profit} \quad \text{..... (4)}$$

We may derive cost of merchandise sold from formula no. 4, as shown here below:

$$\text{Cost of merchandise Sold} = \text{Sales Income} - \text{Operating Expenses} - \text{Profit} \quad \text{..... (5)}$$

The sales income need not be only from sale of merchandise, it could also be derived from other sources like sale of scrap material, sale of property, rent from property or interest earned on deposits with banks, and so on. Let us look at Example 3.3 to see the effect of other income on the other basic factors.

Example 3.3: Effect of Other Income on Basic Factors

A retail company having an annual retail sales turnover of Rs 100000, earns income from other sources too, like Rs 2000 as interest from fixed deposits and Rs 5000 from sale of scrap materials, during the given financial year. The cost of merchandise sold is Rs 60000, the operating expenses are at 30% of the sales turnover. What is the profit per cent and gross margin per cent? Also what is the overall profit earned during the financial year?

Solution:	Rs	Percentages	Details
Sales income	100000	100	
Less: Cost of Merchandise sold	60000	60	
Gross Margin	40000	40	
Less: operating Expenses	30000	30	30% of Rs 100000 = Rs 30000
Profit	10000	10	
Income from other sources	7000	7	Rs 2000 + Rs 5000
Net profit before tax	17000	17	

In the above example we took Income from other sources after the profit, thus we kept safe the gross margin per cent and profit per cent safe from other external

sources of income. But as per accounting practice generally the income from other source is taken at the top along with the sales income from merchandise sales. Now, let us look at the effect of other sources of income on the basic factors when the said income is taken in the top slot.

Solution:	Rs	Percentages	
Sales income	100000	93.46	
Income from other sources	7000	6.54	Rs 2000 + Rs 5000
Total Income	107000	100	
Less: Cost of Merchandise sold	60000	56	
Gross margin	47000	44	
Less: operating Expenses	30000	28	30% of Rs 100000 = Rs 30000
Profit	17000	16	

From the above example it is clear that percentage figures have undergone change once we take other sources of income as part of the overall income. The gross margin per cent which was earlier at 40% now works out to 44%, similarly operating expenses works out to 28% as compared to the earlier figure of 30% and profit per cent works out at 16% instead of the earlier 17%. Certainly if the merchandising team decides to take into account the new percentages in their working of prices or mark-ups they would be wrong as the income from other sources of income is not due to sale of merchandise but due to one-time transactions, which are of not repetitive nature. Hence, the merchandising team must always look at the figures and percentage as shown in the first part of the example 6.3 (where income from other sources is taken in the bottom slot) in order to reach at the right conclusions about a product category.

3.4 OPERATING PROFIT

The term operating profit is self-explanatory. It is basically a figure that explains that the profit earned is after deduction of operating or operational expenses of the business. For earning operating profit it is necessary that the gross margin should be higher than the operating expenses. But as we explained in the earlier section sometime there could be a case where the operating expenses are higher than the gross margin earned.

The Operating Profit can be explained through the following formula:

$$\text{Operating Profit} = \text{Gross margin} - \text{Operating Expense}$$

$$\text{Therefore, Operating Profit} = \text{Sales Income} - \text{Cost of Merchandise sold} - \text{Operating Expense}$$

Let us understand this better through an example 3.4

Example 3.4 Understanding the Working of Operating Profit

A retailer earns a total sales income of Rs 200000 his gross margin earning works out to 20 per cent and his operating expenses works out to Rs 50000 so find out what is his operating profit and its per cent?

Let us first find out the cost of merchandise sold by making use of the formulas discussed in earlier sections:

Gross margin = 20% of Sales Income = $20\% \times 200000 = \text{Rs } 40000$

Since, Cost of Merchandise Sold = Sales Income – Gross Margin

Therefore, Cost of Merchandise Sold = Rs 200000 – Rs 40000 = Rs 160000

Solution

	Rs	Percentage
Sales income	200000	100
Less: Cost of merchandise sold	160000	80
Gross margin	40000	20
Less: Operating expenses	50000	25
Operating Profit/ (loss)	(10000)	(5)

From the above example we find that instead of operating profit there is an operating loss of Rs 10000 (i.e. 5%) as indicated by figures in parenthesis in the above example.

It is important for a merchandising team to understand that the operating profit is the final parameter of performance measurement for any business. Hence, if the retailer is not making operating profit it becomes essential for the buying and merchandising team to get into details of their working, to identify what kind of action will give them a positive operating profit. As we saw in the earlier example there are two major factors that influence the operating profit, as will be clear from the following formula that we had derived earlier.

Operating Profit = Sales Income – Cost of Merchandise sold – Operating Expense(6)

Thus, the two major influencing factors on operating profits are Cost of Merchandise Sold and Operating Expenses. Therefore, merchandising team always try to keep these factors under tight control for reaching operating profitability. It is always beneficial to maintain separate profitability figures for each of the product category, in order to understand which factor needs control for reaching the optimum profitable figures. Let us understand the concept through Example 3.5 as explained here below:

Example 3.5: Operating Profitability

A retailer has two major product categories viz. apparel and groceries, each of them contributing equally in the overall sales of the store, which currently stands at Rs 400000. The gross margin earned by apparel is 30% while for groceries it is 25%. The percentage operating expenses for apparel is 25% while that for Groceries is 15%. Find out the operating profit figures as well as profit percentages for the two categories.

Solution

Since the two categories have equal contribution in the sales turnover, i.e. 50% each, the sales turnover for apparel and groceries works out to Rs 200000 each.

Now let us work out the gross margin values for each of the categories:

Gross margin for apparel = $30\% \times \text{Rs } 200000 = \frac{30}{100} \times 2,00,000 = \text{Rs } 60000$

$$\text{Gross margin for groceries} = 25\% \times \text{Rs } 200000 = \frac{25}{100} \times 2,00,000 = \text{Rs } 50000$$

Since, Cost of merchandise sold = Sales turnover – Gross margin

Therefore, Cost of apparel sold = Rs 200000 – Rs 60000 = Rs 140000

And Cost of groceries sold = Rs 200000 – Rs 50000 = Rs 150000

$$\text{Operating Expenses for apparel} = \text{Rs } 200000 \times 25\% = \frac{25}{100} \times 2,00,000 = \text{Rs } 50000$$

$$\text{Operating Expenses for groceries} = \text{Rs } 200000 \times 15\% = \frac{15}{100} \times 2,00,000 = \text{Rs } 30000$$

Now let us set the details of the respective categories to find answers:

Basic factors	Rs (Apparel)	% (Apparel)	Rs (Groceries)	% (Groceries)
Sales Income	200000	100	200000	100
Less: Cost of merchandise sold	140000	70	150000	75
Gross Margin	60000	30	50000	25
Less: Operating expenses	50000	25	30000	15
Operating profit	10000	5	20000	10

Thus, we find that the total operating profit earned by apparel is Rs 10000, while that for groceries is Rs 20000; the percentage profit earned by apparel category is 5%, while that by groceries is 10%. Therefore, we find that in the ultimate analysis it is the groceries which are the winner. If we had assumed the winner on the basis of only gross margin earned we may be at fault because a fashion merchandise like apparel generally charge higher gross margin on their products, keeping in mind the lower sales to stock turnover ratio (we shall explain this ratio in later section). As compared to necessities like groceries which generally charge lower gross margin, as the lower gross margin is made up by higher turnover ratio of the groceries category. From the above example we find that the operating expenses for apparel are as high as 25 per cent as compared to 15 per cent for groceries. Apparel being a fashion merchandise needs specialised displays, better sales staff, better promotions etc. as compared to that required for groceries. Hence, normally operating expenses for fashion merchandise are higher as compared to that required for necessities like groceries, which needs very low promotional effort. Thus, the merchandising teams for apparel and groceries have to work with very different strategies and plans to achieve their individual operating profitability targets.

For a retail operation besides looking at the individual performance of each category at regular intervals like every season or quarterly or six monthly or at the end of financial year, he is also interested in knowing the performance of the store as a whole irrespective of the categories. Let us continue with the above example to check the overall performance of the store when the performance of the two categories is combined.

Basic Factors	Apparel (Rs)	Groceries (Rs)	Combined (Rs)	Percentages
Sales Income	200000	200000	400000	100
Less: cost of goods sold	140000	150000	290000	72.5
Gross margin	60000	50000	110000	27.5
Less: Operating expenses	50000	30000	80000	20
Operating profit	10000	20000	30000	7.5

So, if the overall operating profitability target of the retailer is to achieve 7.5% then the above strategy is going on well, but if he has a higher target than 7.5%, then he will have to work out a different strategy with each of the merchandising teams.

It is helpful to do comparative analysis of retail stores performance as compared to the previous year. Sometimes even if the turnover for the previous year is higher as compared to that for the current year, one has to look at the bottom-line figures to get the understanding of the true performance for the current year. Let us look at the Example 3.6 below to get better view of this.

Example 3.6 Comparative Analysis of the Current versus Last Year’s Basic Factor Figures

A retailer sales performance on some of the basic factors for the current and previous years is as follows:

Basic factors	Previous year	Current year
Net sales	Rs 200000	Rs 190000
Gross margin	40%	Rs 85500
Expenses	Rs 70000	35%

So find out the performance for the two years and decide which year has given better performance.

Basic factors	Previous year (Rs)	Percent ages	Working	Current year (Rs)	Percent ages	Working
Net sales	200000	100		190000	100	
Cost of goods sold	120000	60	(see 1 below)	104500	55	(see 2 below)
Gross margin	80000	40	$40\% \times 200000 = 80000$	85500	45	$85500 \div 190000 = 45\%$
Expenses	70000	35		66500	35	$35\% \times 190000 = 66500$
Profit	10000	5		19000	10	

1. Cost of goods sold = Sales – Gross margin
Cost of goods sold = 200000 – 80000 = 120000
2. Cost of goods sold = 190000 – 85500 = 104500

So, we can see that though in the current year the sales were down by Rs 10000, the retail performance was good on factors like gross margin, which improved to 45% as compared to 40% of the previous year. Further by maintaining expenses at the same level as that of previous year the retailer is able to improve on profitability to Rs 19000 which is 10 per cent as compared to 5 per cent of previous year.

Check Your Progress A

1. What do you mean by gross margin?

.....

.....

.....

2. What do you mean by the operating expenses?
.....
.....
.....
.....
3. What do you mean by the operating profit?
.....
.....
.....
.....
4. A retailer's net turnover is Rs. 200,000. If the cost of merchandise is Rs. 100,000 and operating expenses are 20%, calculate the gross margin percentage.
.....
.....
.....
.....
5. Write the formulae showing relationship between operating profit, net sales, gross margin and operating expenses.

3.5 BASIC PROFIT FACTORS

It is vital for every retailer to not only understand the significance of every factor that affects the profitability of the business but to also understand the relationship the concerned factor have with other factors of profitability. As we saw in the previous sections it must have been noticed that every working on profitability statement begins with the factor of *net sales*. The terms like sales value or sales income or sales turnover all refer to net sales.

3.5.1 Net Sales

Generally net sales value is derived from the gross sales figure. Gross sales is the sales value derived from the multiplication of quantity sold multiplied by the rate per quantity for a given product. In the Indian context we are used to gross sales in terms of MRP sales value, where MRP represent maximum retail price allowed under the MRP price rule by the Government laws. As per MRP pricing rule a retailer cannot sell any product at a price which is higher than the MRP price printed on the product or its packaging or on the price tag or as per the company price list. But it is also important to note under the MRP pricing rule retailer is allowed to sell the product at a price lower than the declared MRP price. Further MRP price is inclusive of taxes if any, hence, retailer cannot charge any taxes over and above the declared MRP price. In India most of the products are charged with either VAT (value added tax) in place of sales tax or CENVAT (central value added tax) in place of CST, which were prevalent in the days prior to institution of VAT and CENVAT respectively. The rate of tax under VAT is determined by the state in which the store is located, while the CENVAT is determined by the central government. Hence, every retailer or supplier/

vendor has to ensure that the respective CENVAT or vat is paid to the respective departments of the government. As per rule these taxes are recoverable from the consumers and hence, every retailer and supplier/vendor/manufacturer makes it a point to cover them in their respective prices. Thus, in the Indian context the gross sales are inclusive of taxes. Hence all products where the VAT/CENVAT is applicable show the taxes in their bills at the time of sale of these products, and duly have to pay the collected tax amount to the Government.

Thus, a retailer will show his invoice/bill to customer as follows in Example 3.7

Example 3.7: A Format of the Invoice to Customer Showing Gross Sales Figure with Tax

Store name & Address				Date
Item Description	Item code	Quantity	Rate	Amount
Shirt	10101	2	500	1000
Saree	10001	1	800	800
Total		3		1800
VATax collected			5%	90

Some retailers may show tax rate and the amount collected against each of the item in their bill or invoice format if the tax rate is different for different items in the store, and may make suitable change in the format shown in the above example.

In the above example the total amount collected or gross sales value is Rs 1800, hence to calculate the net sales value of the above bill, we need to reduce tax collected amount from the said invoice value as explained here below.

Total Amount or gross sales	Rs 1800
Tax collected	Rs 90
Therefore, the Net Sales value	Rs 1710
Net Sales Value %	Rs 1710 ÷ 1800 = 95%

It may be noted that net sales value per cent is calculated over the gross sales figure. Hence, when we are not aware of the gross sales figure but know the net sales value and the net sales percent then we can calculate the gross sales value by making use of the following formula:

Gross Sales Value = Net Sales Value ÷ Net Sales Value %

Another issue we need to take care of while calculating net sales value from gross sales is that of customer returns and allowances. Customer returns occur due to last moment decision by the customer to return his/her purchased item either due to size not being correct or discovering some fault in the item purchased. Sometime the retailer may give some allowance to the customer if the fault is nominal and can be rectified by the customer. As in the case if the garment is soiled the retailer may provide some allowance for getting the garment laundered or the button is broken then the customer will be provided for getting it rectified. Thus, while calculating net sales value, then the returns and allowances if any need to be reduced from the gross sales figure.

Therefore, we can define net sales value as the amount that remains with the store after deducting taxes, customer returns, and allowances, if any.

Net Sales = Gross sales – Taxes – Customer returns – Allowances

3.5.2 Cost of Merchandise Sold

Cost of merchandise is one of the important factors in the calculation of profitability of any enterprise. As we saw in the earlier section the gross margin is the factor that is derived only after the cost of merchandise is deducted from the net sales value. The total cost of merchandise sold is determined from many other relevant factors as explained in the working shown here below:

Total Cost of Merchandise Sold = Billed/invoiced cost of merchandise + Freight or transportation charges + Alteration cost or other workmanship cost – cash discount.

As we can see from the above formula, total cost of merchandise sold comprises other important elements other than the invoiced value of the merchandise.

Billed or invoiced value of merchandise is the cost of purchase determined by the buyer after due negotiations with vendors/manufacturers of the given merchandise. It is a basic cost value of merchandise that is bought and is simply arrived at by taking the multiplication of quantity of merchandise with the rate finally negotiated with the supplier/manufacturer.

Freight or transportation charges are the cost involved in getting the goods delivered to retailer's warehouse or store. At the time of negotiation this charge is determined by the buyer, and the terms are finalised with the supplier/manufacturer. The terms could be FOB destination or Free on Board (freight free) – which means the merchandise, will be delivered to the pre-decided location by the supplier without any cost to the retailer or buyer of merchandise. The terms could be Freight Paid destination – i.e. the merchandise is to be charged to the retailer or buyer of the merchandise for the freight cost incurred for delivering merchandise to the declared destination. In case of freight paid destination, the cost of merchandise transportation is covered in advance in the cost or rate applied to the merchandise or shown separately in the invoice along with the cost of merchandise supplied.

Alteration or workmanship cost are part of the merchandise sold cost as these costs are incurred immediately at the time of sale of merchandise due to size fitment issues, and hence to be borne by the retailer. Generally alteration cost are the charges to be paid to the tailor for reducing length of the trouser or sleeves or attaching sleeves in ladies dresses/tops etc.

Example 3.8: Calculating Total Cost of Merchandise Sold

A retailer received a bill for merchandise bought of value Rs 100000; he also had to incur a freight amount of Rs 5000 to get the merchandise delivered to his warehouse. Further, when this merchandise was sold he had to incur charges for getting the merchandise altered to the tune of Rs 1000. This merchandise was sold by the retailer at a net sales value of Rs 150000. So, what is the gross margin earned by the retailer and the percentage gross margin earned; also find out the total cost of merchandise sold and its per cent.

Solution:	Rs	Rs	Percentage	
Net sales		150000	100	
Total Cost of merchandise sold:				
Cost of merchandise sold	100000			
Freight charges	+ 5000			
Alteration cost	+ 1000	106000	70.67	Percentage of total cost of merchandise sold = $106000 \div 150000 = 70.67\%$
Gross margin		44000	29.33	Percentage of gross margin = $44000 \div 150000 = 29.33\%$

So, we can see that while only the cost of merchandise, which is Rs 100000, accounts for 67% of the net sales value. The total cost of merchandise works out at Rs 106000, which is 70.67% of the net sales value. Thus, 3.67% accounts for other costs of merchandise that needs to be included in the calculation of the total cost of merchandise sold.

Cash discount is another element that affects the cost of merchandise sold. The effect of cash discount is negative in the calculation of the value of total cost of merchandise sold. Cash discount is the benefit received by the buyer or retailer if the payment is made in certain time period from the date of the bill date. For example, a supplier may specify that he will pay to the retailer 2% cash discount (CD) if the payment is made within 7 days from the date of the invoice, or 1% CD if the payment is made within 15 days from the date of the invoice. Normally supplier gives a credit of 30 days for payment of full amount of the bill. Cash discounts are provided as incentives to the buyer of merchandise to make the payment before the scheduled credit period. In this way the supplier receives the payment well in time and he saves on interest payment to bank on his working capital.

Therefore, if a cash discount is applicable, the total cost of merchandise sold is calculated by deducting the cash discount amount from the total cost of merchandise value arrived at after adding all the elements as discussed earlier.

If in the example 3.8 if there had also been cash discount of Rs 2000, then the value of total cost of merchandise and gross margin will look as follows:

Solution	Rs	Rs	Percentage	
Net sales		150000	100	
Total Cost of merchandise sold:				
Cost of merchandise sold	100000			
Freight charges	+5000			
Alteration cost	+1000			
Cash discount	-2000	104000	69.33	Percentage of total cost of merchandise sold = $104000 \div 150000 = 69.33\%$
Gross margin		46000	30.67	Percentage of gross margin = $46000 \div 150000 = 30.67\%$

So, from the above example we can see with the inclusion of cash discount the percentage cost of merchandise sold works out at 69.33 i.e. lower by 1.34%, and the gross margin is improved by 1.34% as compared to the percentage gross margin in the earlier working.

3.5.3 Operating Expenses

As you have learnt that the operating expenses plays important role in reflecting operating profit of the Firm. Operating expenses constitute all such expenses which are necessary for running the operation of the retail store other than the cost of goods sold. It covers expenses like:

- Salary and wages for direct selling and non-selling employees;
- Salaries paid to merchandising and buying teams;
- Salaries paid to management staff;
- Staff welfare expenses;
- Electricity charges;
- Water charges;
- Rent;
- Repairs and Maintenance cost;
- Consumption of stores and packaging material;
- Advertising and Sales promotion expenses;
- Insurance;
- Octroi and other miscellaneous expenses of local authorities;
- Travelling and local conveyance;
- Storage and warehousing expenses;
- Deficit on assets sold/scrapped
- Bad debts;
- Miscellaneous, etc.

Hence, Retailer should keep a close watch on each of the major elements of operating expenses in order to make his business profitable. As we saw earlier if the operating expenses are more than the gross margin the retailer will be in loss. He/she will need to incur additional expenses on interest in order to maintain his cash flow in positive mode. One may also include interest payment to banks on working capital as part of the operating expenses if the working capital is purely used for running of the store operations.

The operating expenses can be further divided into two important classifications direct expenses and indirect expenses. Let us learn them in detail.

3.5.4 Direct Expenses

Direct expenses are those expenses which exist because the retail store or a particular department is in existence. These expenses will cease to exist if the retail store or the department is not in existence. Thus, expenses like salaries and wages to selling and non-selling (like helpers/house-keeping/maintenance employees) employees, electricity and water charges bill for the store, packaging and supplies material, repair and maintenance for the store, staff welfare expenses, rent and insurance for the store, Octroi for goods brought in to the store and other municipal

charges paid for the store, advertising and sales promotion expenses incurred for the store; all these expenses will be termed as direct expenses. As soon as the store stops operating these expenses will become non-existent. It will be noted that salaries paid to buying and merchandising staff are not considered as part of the direct expenses. These expenses in many of the stores are not considered direct as the staff related to this department are located at the head office and is not responsible for the operation of this store only. Instead it operates other stores also in the chain. But if these staff are directly associated with the store operation and located at the store then their salaries will be classified as direct. In fact, all the expenses classified as operating will become direct expenses too, if the store is a single store at a single location.

3.5.5 Indirect Expenses

Indirect expenses as the term indicates are not dependent on the operation of the store or the department concerned. These expenses occur even when the store stops its operation or the department closes down. Examples of indirect expenses are the expenses which have not been classified as direct in the above section and as listed here below:

- Salaries paid to merchandising and buying teams;
- Salaries paid to management staff;
- Consumption of stores and packaging material;
- Advertising and Sales promotion expenses;
- Insurance;
- Travelling and local conveyance;
- Storage and warehousing expenses;
- Deficit on assets sold/scrapped
- Bad debts;
- Miscellaneous, etc.

Expenses such as advertising and sales promotion, rent, utility expenses which are incurred in general for the head office as well as other stores are termed as indirect expenses for a store which is part of the chain. A company may decide to assign a certain percentage of these indirect expenses to the concerned retail store based on its sales turnover or store area. The concept will be understood better with the help of the following example:

Example 3.9 Allocating Direct and Indirect Expenses

A retailer having two stores store A and store B, each with an area of 400 sq ft and 600 sq ft respectively. The sales turnover of store A is 5 lacs and that of store B is 8 lacs. The direct expenses for store A is 1 lac and that for store B is 3 lacs. The indirect expenses are allocated on the basis of area of each store. The total indirect expenses work out to be Rs 3 lacs. The gross margin per cent for store A and B are 50% and 40% respectively. What is the profitability per cent for store A and store B?

Details	Rs (store A)	Percentages	Rs (Store B)	Percentages
Sales income	500000	100	800000	100
Less:Cost of goods sold	250000	50	480000	60
Gross margin	250000	50	320000	40
Less: Operating expenses				
Direct	100000		300000	
Indirect	120000	(see a below)	180000	(see b below)
Total Operating expenses	220000	44	480000	60
Operating profit	30000	6	(160000)	20

The indirect expenses of Rs 3 lacs are to be divided on the basis of area of each store. Hence, we need to find the percentage area of each of the stores.

The total area for two stores = 400 + 600 = 1000

Percentage area of store A = 400 ÷ 1000 = 40%

Percentage area of store B = 600 ÷ 1000 = 60%

$$\begin{aligned} \text{a) The indirect expenses to be allocated to store A} &= 40\% \times \text{Rs } 3,00,000 = \frac{40}{100} \times 3,00,000 \\ &= \text{Rs } 1,20,000 \end{aligned}$$

$$\begin{aligned} \text{b) The indirect expenses to be allocated to store B} &= 60\% \times \text{Rs } 3,00,000 = \frac{60}{100} \times 3,00,000 \\ &= \text{Rs } 1,80,000 \end{aligned}$$

Thus, we can see store A is profitable inspite of its turnover lower than store B. Hence, store B needs to improve on its gross margin or improve on its sales turnover to be able to meet the operating expenses and make profit.

3.5.6 Contribution

This is one of the important factors in determining the correct pricing of the merchandise. Contribution is calculated by deducting all direct costs or expenses from the sales income. Since, cost of merchandise are direct expenses what we need to do is to deduct other direct expenses from the gross margin to find the contribution percentage. Generally one can find contribution by deducting all variable expenses from the price of the product. Since all direct expenses vary or are directly related with the sales volume of the product, we deduct direct expenses from the income to arrive at the contribution value. Contribution needs to cover all indirect expenses or fixed expenses which do not change with the change in sales volume, in order to make profit.

Example 3.10 Calculation of Contribution

For a retail store following are the details of sales, cost of merchandise sold and operating expenses.

Details	Rs	Rs	% ages
Net sales		100000	
Cost of merchandise sold		50000	
Indirect expenses		9000	
Direct expenses:			
Salaries/wages to selling and non-selling staff	10000		
Packaging	2000		
Conveyance of store staff	1000		
Promotion	3000		
Rent	12000		
Solution:			
Net sales		100000	100
Cost of merchandise sold		50000	50
Gross margin		50000	50
Less: Direct expenses			
Salaries /wages	10000		
Packaging	2000		
Conveyance	1000		
Promotion	3000		
Rent	12000		
Total direct expenses		28000	28
contribution		22000	22
Indirect expenses		9000	9
Profit		13000	13

For better understanding of performance of each of the department or category or stores it is important that department wise or category wise or store wise the above analysis needs to be done. **Contribution tells us if the retail store will be able to make profit after meeting its indirect expenses or overheads.**

Check Your Progress B

1. List the basic factors that affect the profit.

.....

2. Distinguish between direct and indirect expenses.

.....

3. How is the actual cost of merchandise calculated?

.....

4. What is meant by contribution?

.....
.....
.....
.....

5. Which of the following statements are True or False?

- i) A retailer is happy when the gross margin is negative.
- ii) The operating profit depends on cost of merchandise only.
- iii) Water and electricity charges of a retail store are direct expenses.
- iv) Consumption of stores and packaging material constitutes indirect expenses.
- v) A retailer can sell the goods on less than MRP.

3.6 LET US SUM UP

Profitability of the business indicates that the business is on the right track and has all the potential to grow to the next level. It is important for a business person to understand the relationship among the basic factors that determine the profitability of any business. The starting point for any business to be on the track of profitable growth is to generate operating profit. The main elements of the operating profit are 1) Sales, 2) Cost of merchandise sold, and 3) Operating expenses.

The relationships among the three important factors in mathematical formulae form are-

$$\text{Net sales value} - \text{Cost of Merchandise Sold} = \text{Gross Margin}$$

$$\text{Gross Margin} - \text{Operating Expenses} = \text{Profit}$$

If the gross margin is in negative, the situation is very grave. The retailer is not able to cover the other operational expenses of the business. He/she may have to declare his/her business as total loss making. He/she may apply for bankruptcy proceedings.

Gross margin is one of the important factors in the final determination of profits for the business operation. Hence, both the merchandising manager and the buyer maintain close watch on this factor for each category of the merchandise by calculating the gross margin earned per square feet of the given category. Gross margin can be defined as the balance amount available from sales income after deducting the cost of merchandise sold, which can take care of other operational expenses as well as the profit.

$$\text{Gross Margin} = \text{Operational Expenses} + \text{Profit}$$

The term operating profit is basically a figure that explains that the profit earned is after deduction of operating or operational expenses of the business. For earning operating profit, it is necessary that the gross margin should be higher than the operating expenses. Thus,

$$\text{Operating Profit} = \text{Gross Margin} - \text{Operating Expense}$$

It is vital for every retailer to not only understand the significance of every factor that affects the profitability of the business but also to understand the relationship the concerned factor has with other factors of profitability.

Generally net sales value is derived from the gross sales figure. A gross sale is the sales value derived from the multiplication of quantity sold multiplied by the rate per quantity for a given product.

The total cost of merchandise sold is determined from many other relevant factors as shown below:

Total Cost of Merchandise Sold = Billed/invoiced cost of merchandise + Freight or transportation charges + Alteration cost or other workmanship cost – cash discount

Operating expenses constitute all such expenses which are necessary for running the operation of the retail store other than the cost of goods sold.

Direct expenses are those expenses which exist because the retail store or a particular department is in existence. These expenses will cease to exist if the retail store or the department is not in existence.

Indirect expenses as the term indicates are not dependent on the operation of the store or the department concerned. These expenses occur even when the store stops its operation or the department closes down.

Contribution is calculated by deducting all direct costs or expenses from the sales income. Since costs of merchandise are direct expenses, what we need to do is to deduct the direct expenses from the gross margin to find the contribution percentage.

3.7 KEY WORDS

Apparel	: Clothing, especially outer garments; attire
Bad debt	: A debt that is written off and deemed uncollectible.
Groceries	: Commodities sold by a grocer.
Gross margin	: Gross income divided by net sales, expressed as a percentage.
Investments	: In finance, the purchase of a financial product or other item of value with an expectation of favourable future returns.
Merchandise	: Household, personal use, or commercial goods, wares, commodities, bought and sold in wholesale and retail.
Margin	: An edge and the area immediately adjacent to it; a border
MRP	: Market Retail Price
Net sales	: Gross sales minus returns, discounts and allowances.
Stakeholders	: A person, group or organization that has direct or indirect stake in an organization because it can affect or be affected by the organization's actions, objectives and policies.

3.8 ANSWERS TO CHECK YOUR PROGRESS

A 4 Gross margin: Rs. 100,000; Operating profit percentage: 30%.

B 5 i) False; ii) False; iii) True; iv) True; v) True.

3.9 TERMINAL QUESTIONS

1. What is gross margin? How is it related to operating profit?
2. Describe the relationship among basic factors of profitability with suitable example?
3. What do you mean by operating profit? How is it calculated?
4. Describe the basic factors that affect profitability.
5. Explain direct and indirect expenses with suitable examples. When do direct expenses change to indirect expenses?
6. What is meant by contribution? How is it important in determining profitability?

Activities

1. Visit two departmental stores in the nearby area and study and compare their operating expenses. Which one of the two stores has lower expenses and why? Try to analyse.
2. Visit two departmental stores in the nearby area and study and compare their gross margins. The gross margin of which store is higher? Does it affect the number of visiting consumers?