

chapter 4

contribution margin

the amount remaining from sales revenue after variable expense have been deducted
used first to cover the fixed expense, and remains goes toward profits
break-even point: total sales equals total expense or contribution margin equals total fixed expense

one the BEP is reached, operating income will increase by the CM perunit for each additional unit sole
profit=unit CM*Q- fixed expenses

break-even computation

break-even point in units sold=fixed expense/unit contribution margin
break-even point in total sales dollar=fixed expese/CM ratio

target operating profit analysis

units sold to attain the target profit=(fixed expense+target operating profit)/unit contribution margin
dollars sales to attain target profit=(fixed expense+target operating profit)/CM ratio
dollars sales to attain target profit=selling price* units sold to attain the target profit
target profit=target profit/1-tax-rate

the margin of safety

actual sales-break-even sales
margin of safety percentage=margin of safety in dollars/actual sales

operating leverage

degree of operating leverage=contribution margin/operating income
if the sale increase 10% , it will increase by 40% if it is 4
% change in operating income= degree of operating leverage * %change in sales

CM ratio=contribution margin/sales

each dollar increase in sales, CM will increase by ... and operating income will also increase by...
change in CM=CM ratio*change in sales

variable expense ratio=variable expenses/sales

CM ratio=1-variable expense ratio