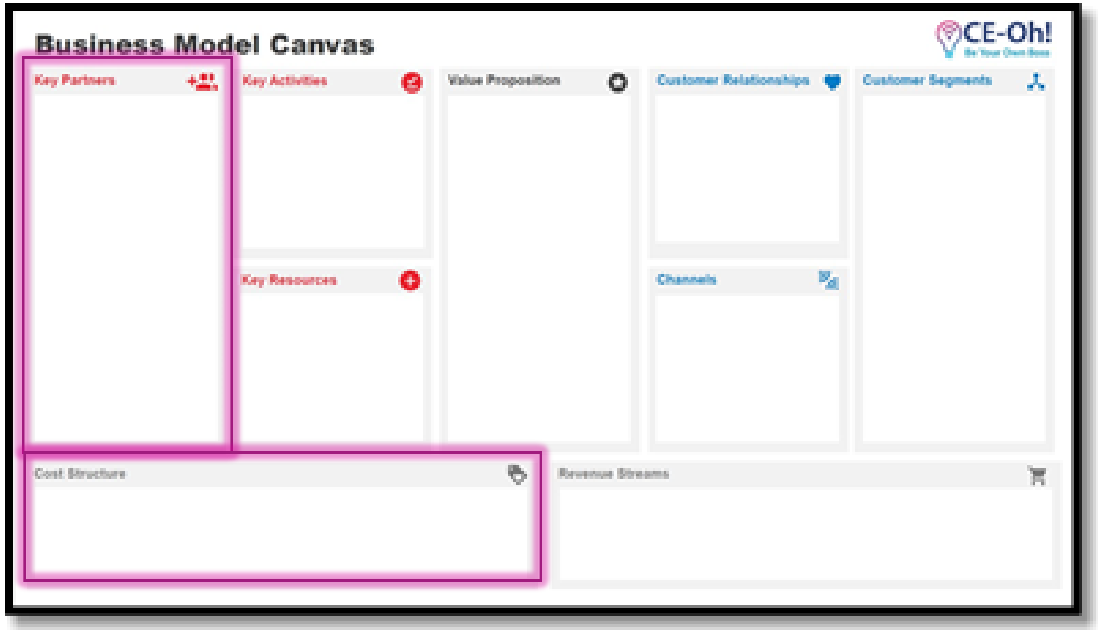
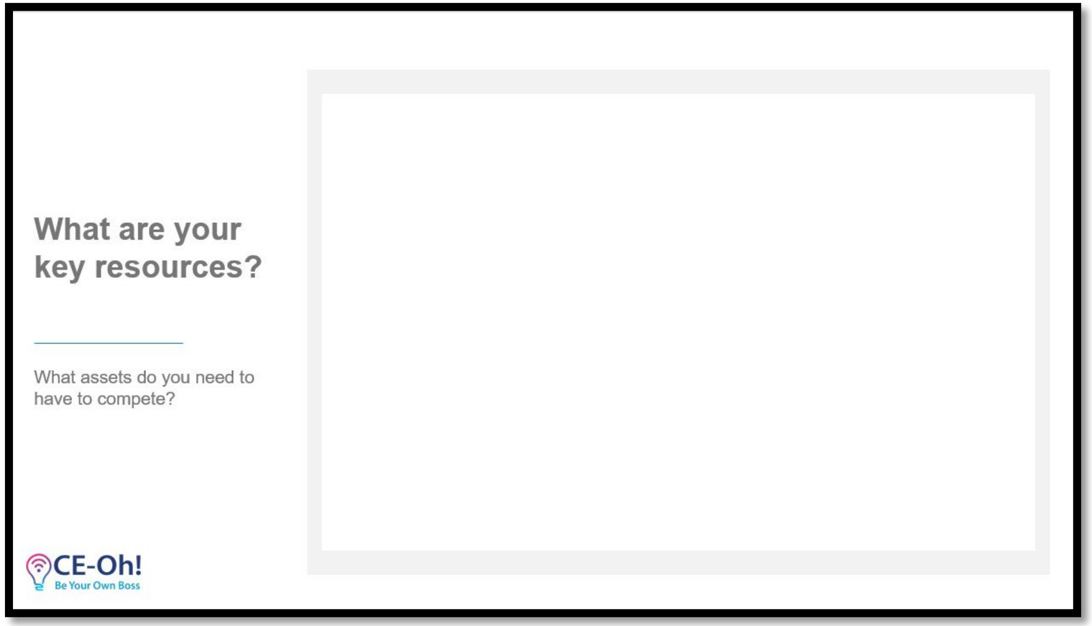

CE-Oh!
be your own boss

Focus

Is there any way you can turn your competition into a partner or resource?

What will the cost structure of your business look like?





Warm-up Activity

Whether it's labor, packaging, software, marketing, materials, or ingredients, being in business requires investment; there is always a cost.

What will you have to invest in as a business owner to keep your business in business?

Vocabulary

Here is the vocabulary for this module.

break-even analysis
break-even point
break-even units
burn rate
cash flow
cash flow statement
commission
contribution margin
cost of goods sold

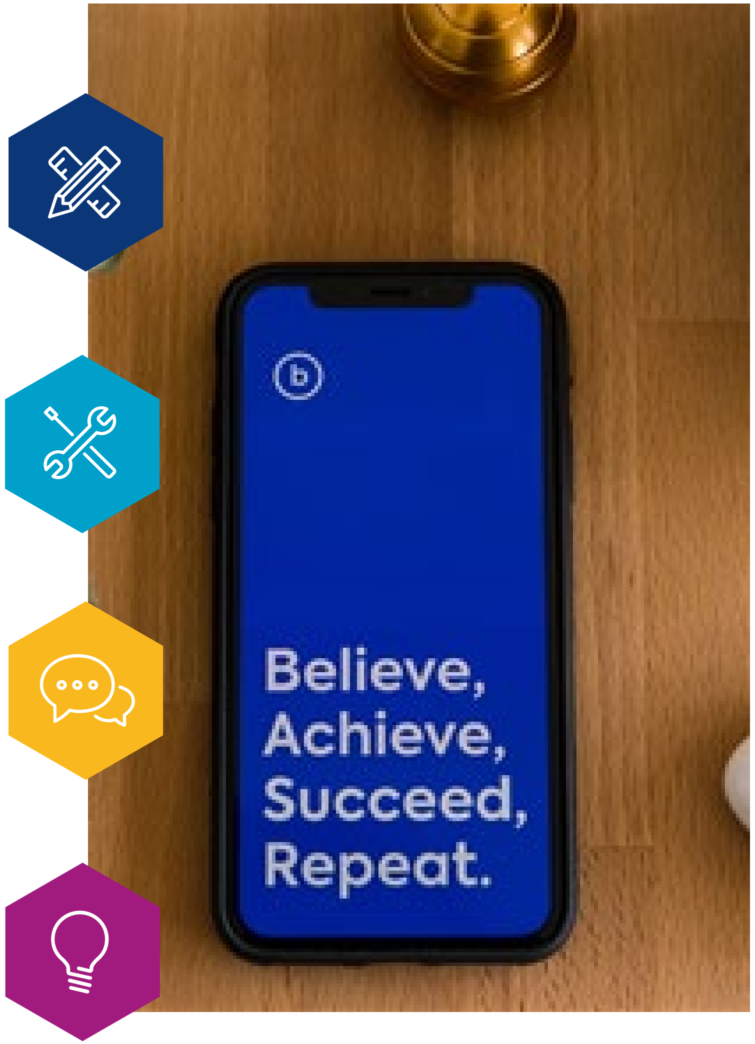
cost of services sold
cost structure
cyclical
depreciation
depreciation expense
economy of scale
expense
fixed expense
labor

salary
salvage value
straight-line method of depreciation
unit of sale
variable expense
volume discount

Key Learning Objectives

Let's introduce our key learning objectives.

- Categorize common business expenses
- Construct and solve contribution margins, focusing on how they interact with variable expenses
- Apply our knowledge of EOU (the Economics of One Unit of sale)
- Identify break-even analysis
- Describe ways to manage ongoing business expenses



Cost Structure

As a business venture, you will have to spend money to earn revenue. Everything you have to spend money on is an **expense**.

Your **cost structure** will help you define all the costs and expenses that your company will have to pay to stay in business.

Types of Expenses

Variable expenses are costs that will change as your sales increase or decrease.

Major variable expenses for most businesses include:

Labor

Materials

Others (shipping costs, sales bonuses and commissions, credit card fees, and more

Costs of Goods Sold (COGS) or Costs of Services Sold (COSS)

Costs of Goods Sold (COGS)

The direct costs of producing goods sold by a company, including materials and labor

Cost of Services Sold (COSS)

Variable expenses that are spent for each unit of sale; anything including labor and materials that must be spent to provide a service

COGS and COSS Example

Let's take a look at how variable costs add up for a custom T-shirt business.

- T-shirt
- Materials and labor for printing
- Packaging, shipping
- Tags

COGS and COSS Example Continued

Cost of Each Shirt	Cost	Subtotal	Total
Cost of Goods Sold			
Cost per shirt	$3.00		
Labor & Materials	$3.00		
Total Cost of Goods Sold		**$6.00**	
Other Variable Expenses			
Shipping	$2.50		
Handling	$0.25		
Total Other Variable Expenses		**$2.75**	
Total Variable Expenses			**$8.75**

Labor Costs

A very important expense for your and your business as you grow will be labor costs. Variable: hourly employees, those who earn **commission**.

Salaried employees, those who earn a **salary**, are not categorized as variable expenses because their salaries are consistent and paid on a regular schedule.

Unit of Sale

The economics of one unit (EOU) refers to a single **unit of sale**, what the customer pays you for.

When you're calculating your profits and operations expenses, you want to break your finances down by each unit of sale.

Contribution Margin

Cost of Each Shirt			
Total Cost of Goods Sold	$6.00		
Total Other Variable Expenses	$2.75		
Total Variable Expenses	**$8.75**		
Sale Price		**$12.00**	
Contribution Margin ($12.00 – $8.75)			**$3.25**

Each product or service that you sell provides you with a **contribution margin**

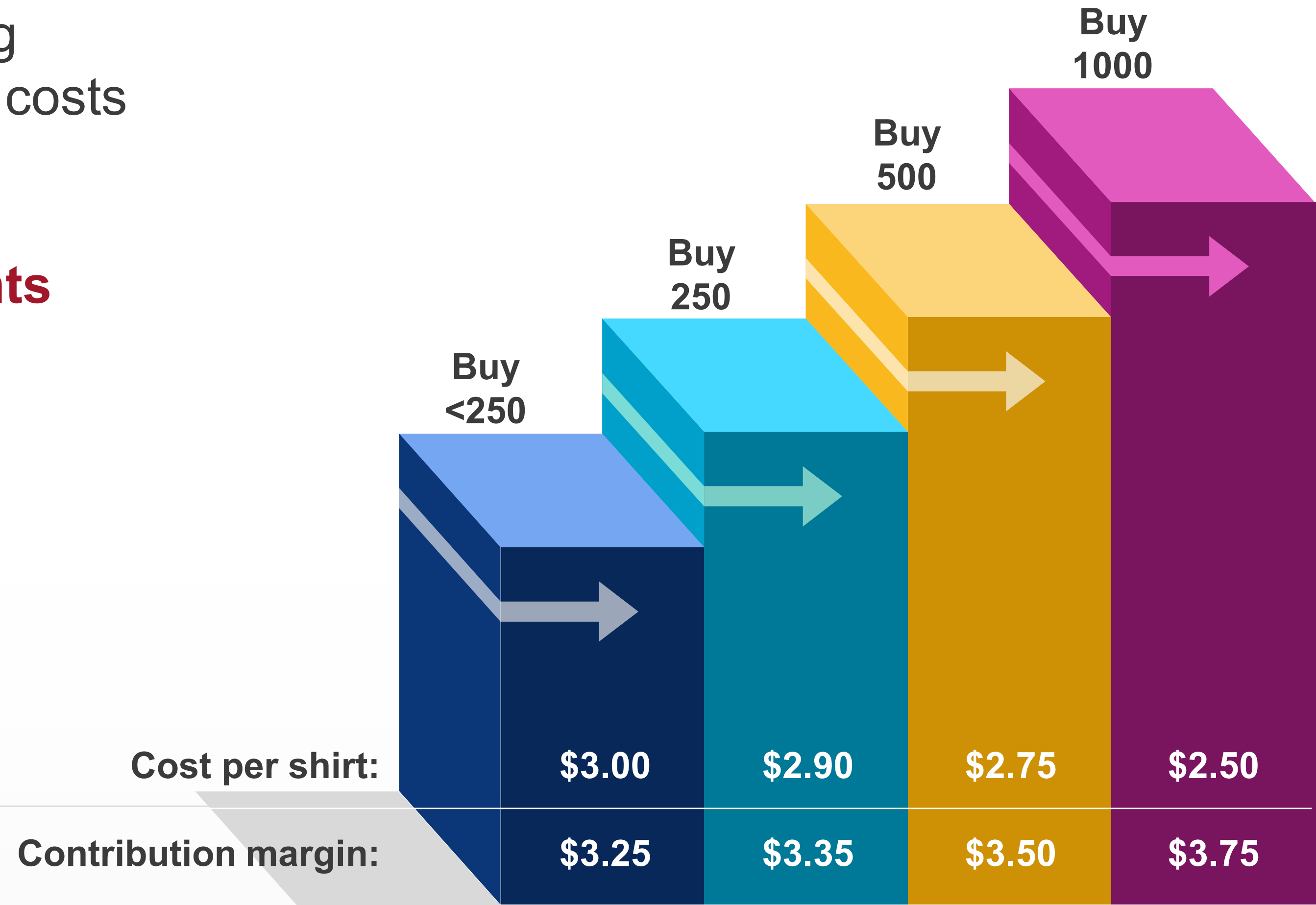
Economy of Scale

Increasing your profits by lowering your costs

By buying our plain t-shirts in bulk – as the cost of each shirt goes down, our contribution margin goes up.

Lowering variable costs through **economy of scale**

Lowering material costs through **volume discounts**



Calculating a Detailed EOU

Download the sample worksheet for the type of business you would like to start from the Resources link on the upper right corner of this window. Use this sample to calculate your own cost structure for a product or service you may offer. Keep the worksheet as we will return to it later in this module.

Fixed Expenses

Fixed expenses are those things you have to pay for regularly. These costs are more constant and do not change very much according to the number of products or services you provide.

Depreciation

Depreciation – spread the total cost of high dollar items across the amount of time you plan to use it.

Straight Line Method of Depreciation – distributing the depreciation equally across years.

Depreciation – how much you spend per year on your equipment

Equipment cost	$3,200
Disposal value	$500
	$2,700

Planned use = 3 years

$2,700 / 3 years = $900

Depreciation expense = $900

Burn Rate

Burn rate is all of the money companies spend each month to stay in business before they turn a profit.

Cash on Hand / Burn Rate = # of Months Before Cash Runs Out
$12,000 / $1,500 = 9 (months)

Breaking Even

Break-even Point – the point where your expenses are equal to your sales

Break-even analysis

Calculate the number of products or services you will have to sell (**break-even units**) to reach your break-even point

Moving Forward

You will want to keep accurate track of your business’s **cash flow**

Many businesses are **cyclical**

You can use a **cash flow statement** to help you track your business cash inflow and outflow

Practice

As an exercise to help you master the skills you've learned in this module, please download all of the worksheets found under the Resources tab. Use your existing knowledge of EOU (the Economics of One Unit of sale) and some research to help you prepare these worksheets for the type of business you are planning to open.

Knowledge Check

Multiple Response Question

Categorize the following common business expenses by choosing those that are **variable** expenses.

- [ ] Salaries
- [ ] Commissions
- [ ] Hourly Wages
- [ ] Rent
- [ ] Materials

Match the term with the correct definition:

The point at which total costs and total revenue are equal. Sales price Per Unit x Break-even Point in Units

The measure of the decrease in the value of an asset over time

The cash and cash-equivalents being transferred into and out of a business

Terms:

Break-even Point

Cash Flow

Depreciation

Multiple Choice Question

How do contribution margins interact with variable expenses or EOU?

- To calculate the sales price of a good or service, you need to add up the variable expenses and multiply that by the contribution margin
- To find the contribution margin, you need to subtract variable expenses from the selling price of a good or service
- To find the selling price of a good or service, you need to subtract the contribution margin from the variable expenses

Multiple Choice Question

In our discussion of benefits and features, we differentated benefits from features. Benefits describe how your product or service can help a consumer. Which of the following statements is a benefit?

- $22.00
- $23.75
- $10.25
- $11.75

Multiple Choice Question

True or False? A break-even analysis will let you know how many units of an item you have to sell so your profits equal your expenses.

- True
- False

Multiple Choice Question

Choose the best answer below to describe “Cash Flow Statement”?

- A financial statement that provides information about cash coming in and going out of a business
- A common method of depreciation where the value of a fixed asset is reduced gradually over its useful life
- The types and relative proportions of all costs that a business has to pay to provide their product or service

Reflection

Let's revisit our original warm-up question:

What will you have to invest in as a business owner? List the expenses you can think of.

Compare and Contrast

Take a moment to reflect on your learning and comparing and contrasting your answers.

What we learned about:

Burn rate Depreciation Salaries	Commissions Fixed expenses Variable expenses	COGS and COSS Labor

We covered the basics of business expenses.

We learned about common variable and non-variable business expenses. Variable expenses will change as you produce more or less of your product or service. Non-variable expenses tend to stay much the same over time.

We learned how to calculate contribution margins by subtracting the variable expenses of a product or service from the sale price of the item. Contribution margins are used to address non-variable expenses and generate profit.

We looked at EOU (the Economics of One Unit of sale) in more detail, and will use our knowledge to create an informed vision of our future business finances.

We took a look at break-even points and learned about how to conduct a break-even analysis so that we know how much we have to sell before we can start turning a profit.

Finally, we discussed cash flows and how tracking the way money comes in and out of a business can help you forecast the future.

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Break-even Analysis

The process of identifying your break-even point and units

Break-even Point

The point at which total cost and total revenue are equal.

Sales Price Per Unit x Break-even Point in Units

Break-even Units

The number of products or services you have to sell at a cost to break even, meaning your costs are equal to your revenue

Fixed Costs/(Sales Price Per Unit – Variable Costs)

Burn Rate

The rate at which a start-up is spending its capital to finance overhead before creating positive cash flow from operations

Cash Flow

The cash and cash-equivalents being transferred into and out of a business

Cash Flow Statement

A financial statement that provides information about cash coming in and going out of a business

Commission

Compensation an employee receives for making sales; used to motivate employees to sell more by providing a reward for their productivity

Contribution Margin

A measure that shows how a particular product or service contributes to the overall profit of a company

Cost of Goods Sold (COGS)

The direct costs of producing goods sold by a company, including materials and labor

Cost of Services Sold (COSS)

Variable expenses that are spent for each unit of sale; anything including labor and materials that has to be spent to provide a service

Cost Structure

The types and relative proportions of all costs that a business has to pay to provide their product or service

Cyclical

A type of industry that is sensitive to the business cycle; revenues generally are higher in periods of economic prosperity and expansion and are lower in periods of economic downturn and contraction

Depreciation

The measure of the decrease in the value of an asset over time

Depreciation Expense

The amount deducted from gross profit to allow for a decrease in the value of assets because of age or how much it has been used

Disposal Value

The value at which an asset should be sold or disposed of; enough to prevent the company from taking a loss

Economy of Scale

The cost advantages reaped by companies when production increases to a point where costs are lowered

Expense

The money a company has to spend to earn revenue

Fixed Expense

A cost that does not change with an increase or decrease in the amount of goods or services produced or sold

Labor

The amount of physical, mental, and social effort used to produce goods and services in an economy

Salary

A form of payment from an employer to an employee which may be specified in an employment contract; different from pieces wages or hourly wages

Salvage Value

The estimated book value of an asset after depreciation is complete

Straight Line Method of Depreciation

A common method of depreciation where the value of a fixed asset is reduced gradually over its useful life

Unit of Sale

A specific business model's revenues and costs in relation to an individual unit

Variable Expense

Business expenses that change in proportion to production output

Volume Discount

Offered when a seller or manufacturer rewards those buying in bulk by providing a reduced price for each good or group of goods